EDITORIAL

COSH - burden or blessing?

In January 1991 the Control of Substances Hazardous to Health (COSH) Regulations were introduced to address some of the problems not covered by the general Health and Safety at Work Act 1974. This may appear to make another unnecessary chore for the hard pressed practitioner but think for a moment of all the potential hazards with which we come in contact during our day to day work - drugs, radiation, microorganisms, sharps, etc. We may already do much to reduce the risks of injury or disease, but could we do more? This is in essence what COSHH is about.

First, two important terms require definition. A hazardous substance is one that potentially can cause harm. A risk relates to the likelihood that it will cause harm.

The regulations require us to make an assessment of the hazards to which we are exposed and grade them according to their importance. We should then develop work procedures that reduce the actual risks to low levels. The BVA COSHH Manual is a useful guide and suggests a framework on which we can base our individual assessment. The assessment requires us to identify and list all the hazards that occur in each work area. Some of these may have defined maximum exposure limits, which should be recorded. In addition, the way in which harm can be caused, and contingency plans in case of accidental exposure, should be noted. Much of this information can be extracted from the COSHH hazard data sheets supplied by the pharmaceutical companies and wholesalers. Grouping substances into broad categories makes this exercise less daunting than it might first appear.

The next step is to devise methods to reduce the risks. It may be possible to discontinue the use of very dangerous substances by using less hazardous alternatives. Strict work protocols (standard operating procedures) may be devised to reduce exposure. These may include the use of mechanical aids (eg, scavenging of waste anaesthetic gases). If the exposure can be reduced, no further appropriate protective clothing or devices may be necessary.

A further requirement is to monitor and keep records of exposure. In some cases (as with individual radiation dosimetry), this may be accurately measured but in many cases the exposure is more difficult to assess. However, it should be possible to calculate average exposures from a knowledge of working practices/staff levels and rota. The keeping of an up to date accident book with copies of reports made in respect of RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrence Regulations) is also important. Such information may form an invaluable defence in the case of potential litigation by an ex-employee on health grounds. It may also form a useful source of data to assess the incidence of possible 'industrial diseases' that may become apparent in the future.

The final important provision of the regulations is the necessity to educate staff. We have grown up with an understanding of the hazards we face and assume that all our staff share this basic knowledge. This may not be the case for many new and young staff and some formal tuition may be essential. The development of written standard operation procedures, covering all aspects of the day to day routine is essential and forms a useful supplement to the general condition of employment.

When first faced with the legal terminology of the legislation the task may appear impossible. However, when put into simpler terms it is not so daunting. Even so, a thorough assessment is a time consuming exercise (approx 150 hours for a moderately large small animal practice). It is important to realise that this is not a 'one-off' exercise and annual reassessments are necessary. The first attempt need not be the 'definitive document', but ideally should address the more important hazards in the practice - the lesser ones being added at a later stage.

It is important to stress that the legislation is already in force, and to ignore it is a criminal offence. The responsibility within the practice rests with the partners and cannot be delegated. Some may feel that as there are few inspectors there is little likelihood of being caught for non-compliance. However, in the case of an ex-member of staff suing the practice over a health and safety matter, if one could not produce the appropriate assessments and exposure records, there would be little defence and the case is likely to be decided in favour of the claimant. This could lead to damages of such magnitude that they are a significant threat to the financial viability of the practice.

Facing up to one's legal and moral obligations not only avoids these worries, but will make the practice a safer place in which to work - surely a blessing in disguise.

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Introduction to computed tomography of the canine brain

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ABSTRACT

Computed tomography (CT) is an important part of the investigation of intracranial disease in man and over the last decade has become more readily available to veterinarians. CT scanning has a central role in the detection and accurate localisation of intracranial masses in the dog and has supplanted conventional contrast radiographic procedures previously used for this purpose. This paper is an introduction to CT scanning of the canine brain, containing illustrations of scans of the brain in health and disease.

INTRODUCTION

Computed tomography (CT), previously termed computer-aided tomography (CAT) scanning, was first introduced into human medical practice in the early 1970s by Hounsfield. Descriptions of the equipment and physics of the technique appeared in the medical literature at that time (Ambrose 1973, Hounsfield 1973). The initial application of the technique was for the detection and accurate localisation of intracranial masses and was rapidly widely adopted for that purpose. Since that time it has also been used in other spheres of human medicine, for example the detection of orbital, thoracic and abdominal masses and for investigation of intervertebral disc disease. The equipment has undergone several modifications; the most recent models are termed ‘fifth generation’.

Before the availability of CT scanning for dogs, the ability of the clinician to accurately detect and localise an intracranial mass was severely limited. Plain skull radiographs are rarely of value in the diagnosis of space occupying intracranial masses although Lawson and others (1984) have described radiographic changes including frequent hyperostosis of the skull in association with meningioma in cats. Hyperostosis of the skull in the dog in association with meningioma is less common (Braund and Ribas 1986). Various contrast techniques were employed to assist in radiographic diagnosis such as sinus venography, cerebral arteriography and contrast ventriculography; these techniques have been reviewed by Barber and others (1987), but all procedures suffer from being invasive, inaccurate, unreliable and sometimes inappropriate for the lesion suspected. Cerebrospinal fluid (CSF) abnormalities associated with intracranial masses including tumours have been described (Bailey and Higgins 1986), but although the results are useful in the diagnosis of inflammatory or infectious disease, the changes associated with most neoplasms are rather non-specific. The withdrawal of CSF from dogs with raised intracranial pressure can be associated with significant morbidity and mortality (Kornegay and others 1983). The application of CT scanning to small animals suspected of suffering from intracranial lesions was taken up rapidly by veterinary neurologists.

The first reports of CT scanning in small animals appeared in the 1980s and were concerned with the normal brain anatomy as seen on CT (Fike and others 1981a, Legrand and Carlier 1986) and with the appearance of various tumour types (LeCouteur and others 1981, Fike and others 1981b, Turrell and others 1986). Conventional tomography is a means of visualising structures lying deep to homogenous overlying tissue. In both CT and conventional tomography an operating X-ray tube is rotated around the area to be scanned. In conventional...
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FIG 1. Diagram to show configuration of a fourth generation gantry CT system. The detectors are fixed at the periphery and the X-ray tube rotates around the subject.

...tomography the pivot point is the area of interest, movement of the tube causes selective blurring of the overlying and underlying tissue while preserving crisp detail at the central pivot point or plane. In CT scanning a narrow X-ray beam (nowadays collimated to a fan shaped beam wide enough to encompass the whole patient, Fig 1) passes through the tissues to impinge on a row of detectors. The computer is able to analyse the attenuation characteristics of each beam and arrange the data to produce a series of cross sectional images on a screen, or as a 'hard copy' on X-ray film. Each image 'slice' is the result of many thousands of computations of attenuation measurements.

The two dimensional image on the screen is a matrix made up of 'pixels' which represent the attenuation characteristics of a volume of tissue (a 'voxel'), the size of which is variable depending on the technique. Commonly, each pixel represents the attenuation characteristics of a voxel having a cross section measuring 1 mm × 1 mm. Each pixel is assigned a CT number, the scale is based on calibration against air (1000) and water (0).

The CT numbers of living tissue vary with the machine used, but approximate reference figures for bone, CSF and various intracranial neural structures have been reported (Fike and others 1981a). The CT number is converted into a monochrome scale for display on screen and X-ray film. The 'window' (ie, the range of CT numbers represented as shades, rather than black or white) and level at which the scan is seen, can be varied to emphasise either bone or soft tissue detail. The 'wide window' effect can be seen in Figs 13 and 20, where bone detail is accentuated.

INDICATIONS

CT scanning is indicated when the clinician suspects the presence of a macroscopic lesion of the brain or cranium. Conditions in this category include: space occupying soft tissue lesions, abnormalities of the ventricular system and head trauma.

CT scanning may also be helpful in the further investigation of some degenerative and inflammatory conditions.

Space occupying lesions

Many dogs with neurological disease may be suspected of having an intracranial space occupying lesion. Often these will be dogs with suspected brain tumours. In general, dogs with intracranial masses will show abnormalities of the neurological examination indicative of a brain lesion (some others will show seizures only, with no interictal abnormalities). Dogs which have signs that can be accounted for by a single intracranial lesion are usually best investigated, initially at least, by CT scanning. Dogs showing multifocal neurological involvement are most likely to have an infectious or inflammatory disease process, these cases may be better investigated initially by CSF analysis. However, withdrawal of CSF from an animal in which the intracranial pressure is increased can be hazardous (Kornegay and others 1983), and should be avoided unless the pressure can be reduced (eg, by mannitol, or oxygen administration). Some inflammatory diseases, in particular granulomatous meningoencephalitis, can be associated with abnormalities visible on CT scans. The changes seen with CT in non-neoplastic brain disorders have recently been reported (Plummer and others 1991).

CT scanning cannot be expected to elucidate the
cause of seizures in all affected dogs, although it can be very useful in some cases. Most dogs with either idiopathic or acquired epilepsy are likely to have a seizure focus which is biochemical or microscopic, respectively, and therefore will be undetected by CT. These dogs can be adequately investigated by routine physical and neurological examinations, together with blood sampling where relevant. Dogs that show seizures as part of their clinical signs, but also have interictal neurological deficits, are candidates for scanning. The interictal deficits may not be pronounced, such as those animals with prefrontal tumours, which may show only depression. It has been recognised that some meningiomas may cause little in the way of interictal abnormalities until late in the course of the disease (Braund and Ribas 1986, Nafe 1990).

Ventricular system

CT is very useful in the diagnosis of hydrocephalus, both congenital and acquired types. Hydrocephalus may be strongly suspected in both puppies and adult dogs on the basis of physical and neurological examination, but definitive diagnosis requires some form of imaging. CT is a non-invasive technique enabling size and symmetry of the ventricular system to be clearly seen.

Trauma

CT scanning is valuable in the assessment of head trauma, for accurate assessment of the presence of skull fractures, and also for appreciation of intracranial haemorrhage. Early evaluation of trauma patients by CT can help greatly in the formulation of therapeutic plans, especially with regard to the need for surgical intervention.

TECHNIQUE

Dogs to be scanned are generally anaesthetised (to prevent movement). A ‘scout’ view is prepared first, which is the digital equivalent of a lateral head radiograph. The levels at which the scans are to be taken are superimposed on this view (Figs 2 and 3). The convention is to take a series of scans at 90° to the long axis of the head (the equivalent of the coronal view in human scans). Other angles can be used, but the deviation from the standard view can render interpretation difficult. The scan thickness is generally 5 mm for large dogs and 3 mm for small dogs and cats. Consecutive slices are contiguous. The scan levels run from the rostral end of C1 vertebra up to and including the cribriform plate. Intravenous contrast can be administered and a second series of ‘contrast enhanced’ scans carried out.

Contrast administration can be an important part of the CT investigation, although it does not necessarily need to be performed in every case. An iodinated contrast agent is administered intravenously at a dose of 300 mgI/kg. The contrast agent used most frequently is iohexol (Omnipaque; Nycomed). Areas of brain with a disturbance in the blood-brain barrier, or structures with a particularly rich blood supply, will show ‘enhancement’, that is, a
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A relative increase in density (CT number) when seen on the post contrast scan.

A disturbance in the blood-brain barrier is a feature of many brain lesions and may cause enhancement as contrast leaks into the parenchyma. A characteristic pattern of enhancement has been found for particular types of lesion. Two main patterns are seen: homogenous enhancement, and 'ring' enhancement where a zone of increased density surrounds a hypodense area. A third pattern - heterogenous enhancement - can be considered as a combination of the other two types (ie, parts of the lesion show homogenous enhancement, parts show ring enhancement). Ring enhancement is correlated with an area of abnormal blood-brain barrier, or increased blood flow, surrounding a zone of tissue with reduced or no blood supply (ie, a region of necrotic or cystic tissue). This can therefore be associated with vascular lesions or with the more malignant types of tumour. Homogenous enhancement is demonstrated in Fig 16b and ring enhancement in Fig 18. Some normal anatomical features are more apparent on post contrast views, including the falx cerebri and the choroid plexuses.

'Reformatted' images can be generated by the computer after the scan, by arranging the data to show detail of a lesion in sagittal and horizontal planes.

The scans in this article were produced on a fourth generation CT scanner (General Electric CT 9800 Quick).

**NORMAL ANATOMY**

The normal anatomy is shown in the scan images in Figs 2 to 13. Images have been collected from more than one animal to illustrate the anatomic features mentioned. The approximate level at which each image was acquired is indicated by reference to Fig 2. The normal internal anatomy of the skull varies with the breed.

Identification of anatomical features in the cranium is aided by the recognition of certain landmarks, which in general are distinctly either more or less dense than the neural tissue itself, and by reference to standard anatomical texts (Meyer 1979, deLaHunta 1983). Landmarks of particular importance are:

*Tentorium osseum* – On the scan the tentorium osseum is seen as an inverted Y-shaped calcified density in the more caudal scans. Dorsal to this structure are the occipital lobes of the cerebrum.
Ventral to the tentorium is the cerebellum, fourth ventricle and below that the medulla oblongata. On more rostral scans the tip of the tentorium is represented as an apparently isolated calcified area.

Ventricular system – The lateral ventricles within the cerebral hemispheres are the most prominent, but on many scans it is possible to delineate the third ventricle and (sometimes) the fourth. The mesencephalic aqueduct may also be seen.

Optic canals and clinoid processes of the presphenoid bones – These structures are important in assessing the position of the optic nerves and the pituitary gland which may be difficult to visualise directly.

Cribiform plate and frontal sinuses – These structures help in assessing the rostrocaudal level of any lesion seen.

Falx cerebri and associated longitudinal interhemispheric fissure – This structure is often poorly visualised on unenhanced scans but is helpful in showing the presence of midline shifts in brain tissue.

Not all the features mentioned will be well visualised on all scans.

GENERAL PATHOLOGICAL CHANGES

As in conventional radiography the entire scan must be carefully examined. The centre of the scan will be the cranial cavity, but some paracranial structures may show relevant pathological changes. For instance, tumour masses may extend from or to the nasal chambers, the bullae or orbits, and temporal muscle wasting may be more obvious than on clinical examination.

Lesions on CT scans are described as hyper-, iso-, or hypodense depending on their density relative to the surrounding tissues. In general, changes listed below are of most importance:

- Change in, or loss of, normal anatomical features of the cranium itself.
- Change in density of parenchymal tissue; hypodensity is generally associated with oedema and, or, malacia; hyperdensity can be associated with inflammatory or neoplastic conditions and acute haemorrhage.
- Change in shape and size of the CSF filled spaces.
- Change in position of midline structures such as the falx cerebri and longitudinal fissure, and the third ventricle.
- Areas showing enhancement after intravenously administered contrast agent.

SPECIFIC PATHOLOGICAL CHANGES

The recognition and the classification of an intracranial space occupying lesion is based on its appearance on both pre- and post contrast scans. The localisation of the mass relative to the theca and the cranial cavity can also assist in formulating the tentative diagnosis. The CT scanning characteristics alone cannot be diagnostic of a particular lesion, the definitive diagnosis must rest on histopathological examination of sampled tissues.

FIG 12. Scan level 13. 1 Cribiform plate, 2 Globe of the eye, 3 Lens, 4 Frontal sinus

FIG 13. Scan level 6. This demonstrates the 'wide window' view, showing greater bone detail. 1 Tip of tentorium, 2 Petrosal part of temporal bone, 3 External auditory meatus, 4 Tympanic bulla. Compare to Fig 5

FIG 14. Scan level 6. 1 Calcified density associated with 2 Tentorium, which is deviated towards the left. This lesion was a multilobulated bone tumour
**Tumours**

Typical patterns for common tumours have been described in both man and dog (Lee and Rao 1983, Turrell and others 1986) and are comparable for the two species:

**Astrocytoma and oligodendrogliomas** – These are intra axial lesions which typically show ‘ring’, or heterogenous, non-uniform enhancement and may not be visualised directly on plain scans.

**Meningiomas** – These are extra axial lesions which appear hyperdense compared to the brain parenchyma, may show areas of calcification and tend to have a homogenous pattern of enhancement. Localisation to the periphery of the theca may be suggestive of a meningioma, however, those associated with the tentorium may at first sight appear to be located within the parenchyma itself.

**Choroid plexus tumours** – These are intraventricular lesions which appear as well defined hyperdense masses that enhance markedly after contrast administration. They are often associated with acquired hydrocephalus.

**Pituitary tumours** – These are well defined with homogenous contrast enhancement. The localisation of the mass along with the clinical signs can be very highly suggestive of this particular type of tumour.

**Other tumours** – Other less frequently described intracranial tumours, such as lymphosarcoma (Fig 17), may show similar characteristics to those mentioned above, rendering definitive diagnosis difficult.

**Other soft tissue lesions**

**Granulomatous meningoencephalitis** – This can be associated with a large mass effect and enlargement of the ventricles and often there are patchy areas of enhancement following contrast administration (Plummer and others 1991).

**Haemorrhage** – Acute intracranial haemorrhage appears as a homogenous hyperdense, non-calciﬁed area. It may be associated with considerable mass effect and oedema. As the lesion ‘matures’ there will be a decrease in the mass effect, and the lesion will become more isodense or even hypodense. Contrast enhancement of the margins may occur at two to four weeks old (Weisberg and Nice 1989).

**Vascular lesions** – Vascular lesions with infarction are rare in dogs, but are occasionally seen in cats (Chrisman 1982). In people, vascular disease is very common and the appearance on CT scans is well described (Weisberg and Nice 1989). Initially, infarcts appear as low or mixed attenuation areas which may be associated with oedema and mass effect, as they mature they become more
hypodense. Enhancement with contrast is variable but the greatest proportion enhance at between two and six weeks old. Vasculitis and tiny areas of infarction may account for some of the changes which are visible in cases of inflammatory or infectious disease.

White matter diseases – White matter diseases such as leucodystrophies or degenerative diseases can be difficult to detect in people, but can be seen as areas of hypodensity. Some, such as Krabbe’s disease, can be associated with increases in the size of the ventricles (Fernandez and Kishore 1983). Differentiation of grey and white matter on CT scans is much more difficult in dogs than in people, and there is a greater amount of artefact on canine scans, rendering diagnosis of these diseases in dogs unlikely by this method.

Ventricular system abnormalities

Other lesions that are well visualised are those relating to the fluid-filled spaces of the brain. These may be altered in size and shape as a primary disease process or as a secondary effect of a space occupying lesion such as a tumour obstructing CSF flow through the mesencephalic aqueduct or the third ventricle causing an acquired hydrocephalus. (Fig 17).

CT scanning is a very useful non-invasive imaging technique to detect and demonstrate the cause of hydrocephalus. In addition, information can sometimes be acquired relating to pressure changes within the ventricles. Increase in pressure is shown by the presence of periventricular oedema (Fig 19). When increased pressure cannot be demonstrated but there is ventricular enlargement a diagnosis of ventriculomegaly can be made. Enlarged ventricles are defined by comparing the width of the lateral ventricles with the internal width of the cranial cavity. Normal dogs were found to have a ventricle: cranial cavity ratio of less than 0.15, in a study on the Maltese dog (Simpson 1990). Ventriculomegaly can be found in animals which have undergone cerebrocortical atrophy, such as those with post hypoxic laminar necrosis. The ventricles contain CSF at normal pressure that has accumulated as a result of the loss of parenchyma; this is also known as hydrocephalus ex vacuo. The sulcal pattern in these dogs will also be accentuated.

LIMITATIONS OF CT

One of the main limitations of the use of CT in the diagnosis of intracranial lesions is its failure to reliably detect diseases which occur at a microscopic level, such as viral encephalitis. Also, on CT scans there is frequently poor definition of caudal fossa structures (Fig 4). “Streak” artefacts are
common in this region due to 'beam hardening', which is due to a high level of beam attenuation during its passage through the large mass of adjacent dense bone. This leaves a relatively small number of high energy photons to be attenuated through the adjacent soft tissue (Crawley 1990) rendering the image unrepresentative of this second portion of tissue. This artefact is also commonly encountered in man and is one of the reasons that magnetic resonance scanning is preferred for imaging of infratentorial neural tissue in man (Smith 1987). Canine brain anatomy has also been found to be better defined on magnetic resonance images (Kraft and others 1989).

It should be remembered that the technique is susceptible to operator variables; the radiographic technique of exposure factors can vary the results. Failure to scan the correct area and failure to administer contrast may lead to inability to detect a lesion in some patients. Caudally located nasal tumours, in particular, may be overlooked during a cursory scanning procedure. Many neurological signs can be accounted for by a wide range of intracranial lesions and lesions in the extremities of the cranial cavity can be responsible for widespread effects.

CONCLUSION

CT scanning is an extremely useful diagnostic procedure where there is a suspicion of an intracranial mass, or other compressive lesion affecting the theca. Assessment of the ventricular system is excellent and, disregarding the anaesthetic risk, is not prejudicial to the patient’s health. The use of CT scanning improves the accuracy of the tentative diagnosis, so allowing a more accurate prognosis to be given for the case, and planning of more appropriate medical and surgical regimes.

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BOOK REVIEW

Fundamentals of Veterinary Ophthalmology
D. Slatter. 2nd edn. 628 pages, paperback, £34.50. London, W. B. Saunders. 1990.

It is 10 years since the first edition of this now familiar textbook was published and the many advances in the field of ophthalmology during that time make the appearance of a second edition both welcome and necessary.

In his preface to the first edition the author states that the book is aimed at veterinary students and general practitioners and that it should be used in conjunction with more advanced texts and atlases. This is presumably still the aim as the basic format and range of the new edition remain unchanged. The author draws extensively on other texts and contributors for illustrations and tables. The general standard of the illustrations is high and they are used liberally throughout. The photographs are usually clear and informative, but it is a pity that many are not in colour. Those that are in colour are confined to a section at the beginning of the book and would have been much more useful if distributed through the text as they were in the first edition. The reason for this is undoubtedly cost; the second edition is soft backed, uses poorer quality paper and is written in a more condensed type, although it is still easy to read.

The early chapters in the book deal with the fundamentals of anatomy, physiology, development and therapeutics. In view of some of the unique properties of the eye and its frequent involvement in inflammatory processes the chapter devoted to ocular inflammation and pathology is welcome. Recent advances in the understanding of immune mechanisms might have deserved more attention and a fuller explanation of the diagrams dealing with immune reactions would have been helpful. This throws up a more general criticism in as much as the reader is not infrequently given potentially interesting information imported from other publications which receives no attention in the body of the text.

The middle section of the book is devoted to chapters concerning the individual structures of the eye of all the domestic species and the information given is generally well delivered in a digestible form. The use of highlighted key words and sentences in bold type helps to emphasise certain points and speeds up access to the information for a busy practitioner. Occasionally relevant details are rather too scattered, eg, a clinician wishing to perform angular venography would need to cross reference information from at least three chapters. The more interested reader may also be frustrated by the lack of allusion to the reference list provided at the end of each chapter.

The later chapters in the book concern systemic diseases associated with ocular signs, ocular emergencies and differential diagnosis. A rather surprising omission from the first of these is that of feline immunosuppressive virus infection which has made an appearance in other recent ophthalmology texts. The final chapter covering differential diagnosis takes the form of annotated diagrams, tables and algorithms dealing with many species including fish, birds, rabbits, rodents and reptiles. A great deal of useful information is imparted in a form best suited to occasional reference rather than leisurely reading.

An appendix of breeds of various species and their predisposition to ocular disorders follows the last chapter. Unfortunately no distinction is drawn between those disorders which have been proven to be hereditary and those which have not. This could leave the unsuspecting clinician skating on thin ice when dealing with a concerned owner or breeder.

A complaint often heard is that ophthalmology is beset by a plethora of incomprehensible terminology. A glossary of terms is given at the end of the book in order to address this problem, but unfortunately this is partially duplicated in an earlier chapter. Some words appear in one list and not the other, while some others used in the text (eg, euryblepharon) appear in neither, which might leave many readers none the wiser.

Despite the above criticisms the book is generally well written, clearly presented and represents good value for money, although a hard back would have better withstood the frequent usage that this book deserves in any general practice.

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Radiological assessment of 50 cases of incisive or maxillary neoplasia in the dog

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ABSTRACT

This paper reviews the radiological features of 50 canine incisive or maxillary tumours and discusses the value of radiological assessment in the diagnosis and staging of these tumours. The 50 tumours examined included 21 sarcomas, 15 carcinomas, three melanomas and an assortment of benign tumours of the oral cavity. There was not any site specificity for the different histological tumour types within the upper dental arcade, although fibrosarcomas had a tendency to be maxillary whereas the squamous cell carcinomas were equally distributed between the incisive and maxillary regions. Seventy-eight per cent of fibrosarcomas, 82 per cent of squamous cell carcinoma and all three melanomas examined showed radiological evidence of bone involvement. Radiographic changes were also seen in the benign tumours. The pattern of growth of tumours correlated with the radiological changes observed. Malignant tumours showed a tendency to irregular or aggressive bone loss whereas bone production predominated in the benign tumours.

INTRODUCTION

The oral cavity is the fifth most common site for the development of neoplasms in the dog. If malignant and benign oral neoplasms arising at this site are combined, they comprise 5.7 per cent of all canine neoplasia (Theilen and Madewell 1987). The incidence of radiographically demonstrable bone invasion in canine malignant oropharyngeal tumours is cited as 60 per cent (White and others 1985b). Bone invasion is of considerable importance in the clinical management of oral tumours because the presence of neoplastic cells in bone is a major factor governing local tumour recurrence (White and others 1985a).

The clinical and pathological features of oral tumours in the dog have been well documented (Brodey 1960, Dorn and others 1968, Brodey 1970, Todoroff and Brodey 1979, White and others 1985b, Bradley and others 1986). A variety of methods of treatment of oral tumours have also been reported and reviewed (Thrall 1982, Hoyt and Withrow 1984, White and others 1985a, Black 1987, Emms 1987, Thompson and others 1987). However, there is a paucity of information in the veterinary literature regarding the radiological changes associated with canine oral neoplasia.

This paper reviews the radiological features of 50 canine incisive or maxillary tumours and discusses the value of radiological assessment in the diagnosis and staging of these tumours. The tumour site was restricted to the incisive (pre-maxillary) or maxillary areas to limit the anatomical variation against which the radiological changes were to be assessed.

MATERIALS AND METHODS

The cases reviewed were pet dogs referred to the University Department of Clinical Veterinary Medicine, Cambridge or to the Animal Health Trust, Newmarket for evaluation and treatment of incisive or maxillary tumours. The diagnosis was established in all but two cases by histological examination of incisional or excisional biopsy material. In the two cases which were not confirmed histologically, a radiological diagnosis was made on the basis of the characteristic appearance of ameloblastoma. The histological classification of tumours used in this paper conforms to that described by the World Health Organization (Head 1976). There is however, continuing controversy over the classification of
the ‘epulides’ and for this group of tumours the classification proposed by Bostock and White (1987) has been adopted.

As part of the initial diagnostic and staging procedure, all tumours were assessed radiologically using standard intra-oral or open-mouthed, ventrodorsal nasal views, together with other appropriate skull radiographs. General anaesthesia was necessary for restraint of the animals during radiography. The anatomical location of the incisive and maxillary bones was outlined on standard intra-oral and lateral skull radiographs and the maxilla was arbitrarily divided into thirds as shown in Fig 1. For each case the tumour site was described within the boundaries thus defined. The radiographic appearance or nature of bone involvement was primarily defined as destructive, productive, periosteal unstructured bone or calcification. These categories were further divided as detailed in Table 1. The radiographs were also examined for evidence of local tumour extension into adjacent anatomical locations, the defined locations for extension are listed in Table 2.

**RESULTS**

Fifty incisive/maxillary tumours were reviewed including 21 sarcomas, 15 carcinomas, three melanomas and 11 other tumours, as detailed in Table 3. The sites of these tumours were described as: primarily soft tissue \((n = 4)\), incisive \((n = 16)\), around the canine tooth \((n = 3)\) or in the rostral \((n = 2)\), mid \((n = 4)\) or caudal \((n = 5)\) thirds of the maxilla. The remaining 16
Table 3. Histological types represented

| Malignant tumours          | Total | Site       |
|----------------------------|-------|------------|
| Sarcoma                    |       |            |
| Fibrosarcoma               | 14    |            |
| Osteosarcoma               | 2     |            |
| Poorly differentiated      | 5     |            |
| Sarcoma                    |       |            |
| Squamous cell carcinoma    | 11    |            |
| Poorly differentiated      | 1     |            |
| Basal cell carcinoma*      | 3     |            |
| Melanoma                   | 3     |            |
| Other malignant tumours    |       |            |
| Chondroma rodens           | 1     |            |
| Merkel cell tumour         | 1     |            |
| Benign tumours             |       |            |
| Ameloblastoma†             | 3     |            |
| Peripheral odontogenic fibroma | 3  |            |
| Cavernous haemangioma      | 1     |            |
| Fibroma                    | 1     |            |
| Osteoma                    | 1     |            |

* Basal cell carcinoma is also termed 'acanthomatous epulis'. This tumour has been included in the malignant tumours because of its locally invasive pattern of growth. Metastasis is rare
† This tumour has been included in the benign tumours because of its expansive manner of growth

Table 4. The distribution of canine oral tumours in the upper dental arcade by histological type

| Histology               | Total | Site |
|-------------------------|-------|------|
| Sarcoma                 |       |      |
| Fibrosarcoma            | 14    |      |
| Osteosarcoma            | 2     |      |
| Poorly differentiated    | 5     |      |
| Sarcoma                 |       |      |
| Squamous cell carcinoma | 11    |      |
| Poorly differentiated    | 1     |      |
| Basal cell carcinoma    | 3     |      |
| Melanoma                | 3     |      |
| Carcinoma               |       |      |
| Chondroma rodens        | 1     |      |
| Melker cell tumour       | 1     |      |
| Peripheral odontogenic fibroma | 2  |      |
| Fibroma                 | 1     |      |
| Osteoma                 | 1     |      |
| Ameloblastoma            | 3     |      |
| Cavernous haemangioma   | 1     |      |

... is used to indicate tumours which involve two or more anatomical sites

and the three peripheral odontogenic fibromas were all sited in the incisive region or extended from the incisive region to the mid-maxilla.

Bone involvement

Radiographically observed bony changes were associated with 86 per cent of all tumours examined and with 87 per cent of the malignant tumours. The only tumours not showing any bone involvement or calcification in this series were two fibrosarcomas.

All of the bony changes listed in Table 1 were represented within the 50 tumours examined and some tumours showed more than one type of change (Fig 2). Bone destruction was the most common lesion and this was generally associated with malignant tumours; bone production was the most common change associated with benign tumours. A sclerotic reaction was only seen in one case, a basal cell carcinoma, where a destructive, osteolytic lesion was surrounded by a sclerotic border.

With the exception of the ameloblastoma, which has a characteristic radiographic appearance (Fig 3), none of the radiographic changes observed were specific to a particular tumour histology. However, the following trends were
apparent: sarcomas were frequently associated with aggressive or irregular bone destruction (Fig 4) but fibrosarcomas were also associated with a periosteal 'brush border' reaction. Carcinomas were most likely to demonstrate aggressive bone destruction (Fig 5). The benign tumours excluding ameloblastoma (ie, fibroma, peripheral odontogenic fibromas and osteoma) tended to show bone production or calcification of the tumour mass (Fig 6).

**Dental involvement**

Dental disruption was a consequence of tumour growth in 60 per cent of the cases examined...
Fifty-four per cent of tumours in this series showed radiographic evidence of extension into one or more adjacent anatomical compartments (as defined in Table 2). The palatine fissure was the most common site for extension (Fig 4) and the least common area was the soft palate. One third of these tumours had multiple extensions as shown in Fig 8. Multiple extensions were not a reflection of any particular tumour type.

**DISCUSSION**

The tumours in this study were selected from referred cases on the basis of their incisive or maxillary location, hence the relative proportions of histological types cannot be regarded as being representative of the overall incidence of oral neoplasia in the dog. Fibrosarcoma and squamous cell carcinoma were the most common tumours in this series representing, in total, 50 per cent of the cases. These are the most common oral tumours presented at our referral clinic. Malignant melanoma, which has been reported to be the most common malignant oral tumour in the dog in other series (Hoyt and Withrow 1984) is perhaps under-represented in this series but relatively few melanomas are referred to our clinic.

There is no clear site specificity within the upper dental arcade for the different histological types of tumour, however, fibrosarcomas showed a tendency to be maxillary whereas the squamous cell carcinoma were equally distributed between the incisive/canine and the maxillary locations. The basal cell carcinomas and peripheral odontogenic fibromas tended to occur between or around teeth, especially the canine and carnassial. A high frequency of these tumours at such sites has previously been reported (Crowley 1987). Ameloblastoma is reported to occur most commonly in the mandible (Bradley and others 1986, Bostock and White 1987), however, on occasion this tumour may arise in the premaxilla/maxilla as in the three cases included in this series.

Eighty-seven per cent of the malignant tumours in this series showed radiographic evidence of bone involvement, therefore lack of bone involvement did not entirely rule out malignancy. Radiographic changes associated with bone were also observed in benign tumours.

Seventy-eight per cent of the fibrosarcomas in this series showed bone involvement which is consistent with previously published reports (Hoyt and Withrow 1984, White and others 1985b). Eighty-two per cent of squamous cell carcinomas showed bone involvement, this figure is
higher than previous reports where 70 to 77 per cent are quoted (Hoyt and Withrow 1984, White and others 1985b). This minor discrepancy could be the result of a bias towards tumours with bone involvement in the selection of cases for the study, or could indicate that squamous cell carcinoma involving the upper dental arcade tend to be more invasive of bone. All three melanomas in this series showed bone involvement which is higher than that found in previous reports (Hoyt and Withrow 1984), but the sample size in this series is very small. Indeed, it has been the present authors’ experience that radiographic changes associated with oral melanoma may be very subtle.

The predominant radiographic bony changes observed in the different histological types have been described and may be summarised:

1. Sarcomas typically demonstrated aggressive or irregular bone destruction but within this group, fibrosarcomas often showed a brush border periosteal reaction.
2. Carcinomas were most likely to demonstrate aggressive bone destruction.
3. Melanomas were most likely to demonstrate irregular bone destruction.
4. Bone production was the most common reaction associated with the benign tumours, but cystic bone destruction was characteristic of ameloblastoma. Some benign tumours also showed a wispy periosteal reaction.
5. The absence of detectable radiographic change did not rule out malignancy.

The ability of tumours to produce bony changes is an interesting phenomenon. Tumours may have a direct effect upon adjacent bone through a variety of mechanisms. The infiltration of tumour cells into and through connective tissue matrices is a complex event. Invasive carcinomas degrade their containing basement membrane by an elevated production of proteases. Collagenase (type 1), activated by plasmin, plays an important role in this process, which may explain why carcinomas derived from surface epithelium are able to invade and destroy the underlying bone thus producing radiographic changes (Misdorp 1987). Tumour cells in the bone release osteolytic factors which stimulate bone resorption. Resorbed bone is then chemotactic for these tumour cells and for mononuclear phagocytes causing reinforcement of this reaction (Weller 1984).

Squamous cell carcinomas are characterised by an invasive pattern of growth by invading and destroying mucosa, submucosa, adjacent muscle and bone. Basal cell carcinomas are similarly characterised by their locally aggressive behaviour and the infiltration of underlying bone by clumps and strands of tumour cells in continuity with the surface mucosa has been demonstrated in serial histological sections by Bostock and White (1987). Hence, the nature of growth and extension of these tumours correlates well with the aggressive type of bone destruction seen radiographically.

Sarcomas are derived from connective tissue elements and may thus arise within the bone where tumour growth invariably results in bone destruction. These tumours, especially fibrosarcomas, may also arise within periosteal connective tissues where their locally infiltrating nature of growth leads to elevation of the periosteum and development of the brush border periosteal reaction which was observed in many of these cases.

Oral melanomas are derived from the melanocytes in the oral epithelium. These tumours are usually rapidly growing and highly malignant. They are locally invasive of adjacent soft tissues and can extend into bone. Microscopically, tumour cells can be seen migrating downward...
into adjacent connective tissue compartments (Theilen and Madewell 1987).

The pattern of growth of malignant tumours therefore generally correlates well with the radiological changes observed, all tumours in this category showing a trend towards aggressive or irregular bone destruction.

Radiographic changes associated with bone were also a feature of the benign tumours in this series. Histologically peripheral odontogenic fibromas are known to contain varying amounts of metaplastic bone, hence the alternative terminology 'fibrous or ossifying epulis' (Head 1976, Dubielzig and others 1979). These tumours may also show varying degrees of mineralisation or calcification of the soft tissue mass but, by definition, they do not invade the underlying alveolar bone. On occasion, dental disruption may be caused by the sheer physical presence of the tumour (Fig 9). Ameloblastoma arise from the 'Rests of Malassez', the epithelium associated with the dental lamina. These tumours grow by expansion forming cystic lesions within the bone, which accounts for the characteristic radiographic appearance of cystic bony swelling and distension (Bostock and White 1987). Therefore, the radiological changes recorded for the benign group of tumours also correlates well with the mechanisms of their growth.

Sclerosis surrounding an area of bone destruction was not a feature of these intraoral tumours, regardless of their histology or extent. This is an important radiographic differential feature from malar abscessation.

The high incidence of bone involvement associated with oral tumours which has been demonstrated by this and previous studies is of considerable practical importance in the management of canine oral tumours. The aim of treatment must be to eradicate the entire tumour including that which has extended into the adjacent bone. Failure to address the problem of bone involvement frequently results in local recurrence of the tumour. The surgical techniques of maxillectomy and premaxillectomy and the indications for radiation therapy have been discussed elsewhere (Thrall 1982, Hoyt and Withrow 1984, White and others 1985a, Black 1987, Emms 1987, Thompson and others 1987). Many of the tumours in this series had extended beyond their site of origin by the time of examination. Involvement of the periorbital/zygomatic region was a common feature of maxillary fibrosarcomas and although squamous cell carcinoma tended to be less extensive than sarcomas, extensive facial involvement was also observed in a small proportion of squamous cell carcinoma. The extent of such tumour invasion must be appreciated for a successful treatment stratagem to be achieved.

CONCLUSION

Although clear trends were established, no absolute radiographic determinants were seen for a particular histological type of oral tumour. The severity of the radiological changes did not necessarily relate to the biological behaviour of a particular tumour although the type of change did. Critical radiological assessment of incisive or maxillary canine tumours is an essential part of the evaluation of such a case. Tumour site, extent, bony or dental involvement could often indicate the major histological groupings. Radiological assessment is also essential to define the extent of the tumour before proposed radical excision.

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Clinical and laboratory findings in small companion animals with lead poisoning: 347 cases (1977 to 1986)

THE commonest signs in dogs were vomiting, seizures, anorexia, hysteria, lethargy and diarrhoea. In cats, the most frequent signs were vomiting, seizures, anorexia, hysteria and weight loss. Blindness, polyuria, polydypsia and signs of abdominal pain were also seen in both species. Dogs were the only species to develop aggression, dementis, pica, megoesophagus and coma. In animals less than five years old seizures, lethargy and abdominal pain were more likely. In those over five years old, polydypsia and polyuria were more often found. In birds an increase in very liquid droppings was the commonest sign; regurgitation, lethargy and anorexia were also common. Parrots were also prone to bloody droppings and polydypsia. In mammals, nucleated red blood cells (54 per cent of cases) and basophilic stippling (25 per cent) were found. Radiopaque material was commonly found in the gastrointestinal tract on radiographs in 21 birds and 51 mammals. Blood lead concentrations varied from 40 to 1640 µg/dl, with birds having the broadest range and highest mean blood values.

Infiltrative urethral disease in female dogs: 41 cases (1980 to 1987)

THE cases of 41 bitches with urethral disease were reviewed. Twenty-nine had epithelial neoplasia; 10 granulomatous urethritis and two leiomyoma. Clinical signs were similar in each animal and included stranguria (36 bitches); haematuria (30); pollakiuria (20); vaginal discharge (16) and complete urinary obstruction (seven). Aspiration biopsy of the urethra was performed in 15 bitches; the result correlating with surgical biopsy in 11 cases. Surgical biopsy specimens were usually obtained by a perineal approach. Contrast cystoureography revealed similar lesions (multiple filling defects within the lumen; marked irregular undulation of the mucosal border) in all groups. Results were normal in nine animals. Bitches with granulomatous urethritis were treated with prednisolone and cyclophosphamide or prednisolone alone. Clinical signs resolved in the majority of cases. It is important to obtain a definitive diagnosis in each case because the prognosis differs between neoplasia and granulomatous urethritis.

T-plate for middle carpal and carpometacarpal arthrodesis in a dog

A FIVE-year-old Irish setter dog was treated for subluxation of the middle carpal joint and accessory carpal bone. A partial arthrodesis was performed to combat the carpal hyperextension. A 10-hole T-plate was applied to the radiocarpal and third metacarpal bone after the intercarpal, middle and carpometacarpal joint spaces had been packed with fresh autogenous cancellous bone, harvested from the proximal humerus. Postoperative management included a soft bandage for one week, followed by external coaptation for six weeks. Serial radiography showed progressive bony union indicative of complete arthrodesis of the affected joints. There was no evidence of lameness or muscle atrophy 32 months after surgery and the dog ran without signs of pain.
CASE REPORTS

Pulmonary infiltrates with eosinophilia

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ABSTRACT

A seven-month-old collie and a four-year-old Jack Russell terrier were presented with coughing and dyspnoea of varying duration. A peripheral and pulmonary eosinophilia was detected in both dogs. After ruling out heartworm disease, lungworms, fungal pneumonia and drug reactions, a diagnosis of pulmonary infiltrates with eosinophilia was made. Dramatic relief of clinical signs, radiographic infiltrate and peripheral eosinophilia occurred after administration of glucocorticoids.

INTRODUCTION

Pulmonary infiltrates with eosinophilia represents a manifestation of multiple diseases that result in pulmonary infiltrates and a peripheral and, or, pulmonary eosinophilia. These eosinophilic pneumonias vary widely in severity and in humans are roughly divided into five categories (Crofton and others 1952). They are poorly defined in veterinary medicine. Two dogs with pulmonary infiltrates with eosinophilia and their response to therapy are described.

CASE REPORTS

Case 1

A seven-month-old, 16 kg female intact collie was presented with progressive respiratory distress of 48 hours duration. She had been coughing (non-productive) for four days and had been anorexic for the past 24 hours. On physical examination, the dog was alert and slightly dyspnoeic with an elevated rectal temperature (39.4°C). Thoracic radiographs showed severe patchy alveolar infiltrate involving all lung lobes, with some bronchial wall thickening (Fig 1). A complete blood count indicated leucocytosis (45,900 WBC/μl), with marked eosinophilia (28,917/μl). Results of serum chemistry profile and urinalysis were normal. Fungal serology for histoplasmosis and blastomycosis were negative and an ophthalmic examination was normal. A lung aspirate was performed and was consistent with eosinophilic inflammation, with large numbers of eosinophils noted on cytological examination. Both a Knotts test and an ELISA (Synbiotics, San Diego, California) for occult heartworm disease were negative. Faecal flotation and Baermann sedimentation examinations were negative. A diagnosis of pulmonary infiltrates with eosinophilia was made on the basis of thoracic radiographs, lung aspirate and peripheral eosinophilia. Glucocorticoids (prednisone) was initiated at 35 mg twice a day orally for the first two days. There was a dramatic decrease in respiratory distress and partial resolution of pulmonary infiltrate on thoracic radiographs. Peripheral eosinophilia decreased steadily on serial complete blood counts.

The dog was maintained on 20 mg of prednisone twice a day for 14 days, followed by a reduction to 10 mg every other day over the next six weeks. Radiographic resolution of the infiltrates continued (Fig 2). The dog was weaned off all glucocorticoids after eight weeks and at 24 months later has had no recurrent episodes.
FIG 1. Lateral and dorsoventral thoracic radiographs of a seven-month-old collie with coughing and respiratory distress. There is patchy alveolar infiltrate involving all lung lobes with an underlying bronchial wall thickening.

Case 2

A four-year-old 11 kg castrated male Jack Russell terrier was presented with coughing and laboured breathing of two-and-a-half weeks duration. Previous treatment with antibiotics and bronchodilators had no effect. The cough was non-productive and got worse after exercise; it had started acutely after the dog had been running outdoors. The owners reported that the dog was somewhat lethargic, but had a normal appetite. On physical examination, the dog had forced, laboured breathing, with an expiratory wheeze. He was febrile with a rectal temperature of 38.9°C. Thoracic radiographs taken shortly after admission demonstrated multiple areas of patchy alveolar infiltrate superimposed over a marked bronchial pattern (Fig 3). Although a serum chemistry profile was normal, the complete blood count indicated leucocytosis (17,800 WBC/μl), with an eosinophilia (3560/μl). Pulmonary infiltrates with eosinophilia was suspected and a transtracheal aspirate was performed the following day. Cytology revealed large amounts of mucus, numerous eosinophils and both degenerate and non-degenerate neutrophils. A culture of the aspirate showed no bacterial or...
fungal growth. Faecal flotation and Baermann sedimentation were negative. Both Knott’s and occult heartworm antigen (ELISA, Synbiotics) test were negative. A diagnosis of pulmonary infiltrates with eosinophilia, caused by an unknown allergen was made and the dog was started on glucocorticoids (prednisone) at 10 mg orally twice a day. After two days, there was marked resolution of respiratory distress and the glucocorticoid dose was decreased to 5 mg twice a day for the next two days. The cough and laboured breathing resolved completely. Follow-up thoracic radiographs were not taken. After gradual reduction over the next two weeks, glucocorticoids were discontinued. At 36 months after treatment there have been no recurrent episodes of respiratory distress.

**DISCUSSION**

The respiratory tract is in constant contact with the external environment and is vulnerable to massive antigenic stimulation. The lungs are well protected by a variety of immunological defence mechanisms preventing pulmonary injury by inhaled or aspirated agents (Felsburg 1986, Gorman and Halliwell 1989). Hypersensitivity reactions (allergies) represent an exaggerated immune response resulting in host tissue injury. These reactions have been divided into four types based on the underlying immunological process (Felsburg 1986). Type 1 (immediate hypersensitivity) is probably the most common reaction involved in immune injury to pulmonary tissues, but types 2, 3 and 4 also appear to play varying roles (Wilkie 1982, Felsburg 1986, Noone 1986, Bauer 1989, Gorman and Halliwell 1989, Halliwell and Gorman 1989). The eosinophil is an integral component of disorders associated with hypersensitivity as well as certain parasitic diseases (Center and others 1990). Pulmonary infiltrates with eosinophilia is characterised by pulmonary infiltrates with an associated peripheral and, or, pulmonary eosinophilia. It should be emphasised that pulmonary infiltrates with eosinophilia is not a specific disease, but rather a manifestation of several different hypersensitivity reactions. Commonly, a specific aetiology is not found. Hypersensitivity to respiratory tract parasites such as *Aelurostrongylus*, *Paragonimus*, *Filaroides* and *Capillaria* species can cause peripheral and, or, pulmonary eosinophilia, as well as pulmonary infiltrates. Migration of intestinal parasites such as *Toxocara* or *Ancylostoma* species through the respiratory tract may cause a similar reaction. These parasites are detected by faecal examinations, both standard flotation techniques and Baermann sedimentation. Examination of tracheal or bronchial secretions may be of even greater benefit, as ova or larvae may be concentrated in these secretions and more readily identified. No evidence of pulmonary or gastrointestinal parasitism was found in the dogs of this report.

Pulmonary hypersensitivity also can develop with immune-mediated occult heartworm disease, where antibody-microfilaria complexes are trapped in pulmonary capillaries (Noone 1986, Halliwell and Gorman 1989). Subsequent inflammatory reaction is characterised by an unusually high number of eosinophils. In two previous

**FIG 3.** Lateral and dorsoventral radiographs of a four-year-old Jack Russell terrier with coughing and dyspnoea. There is diffuse and patchy alveolar infiltrate, accompanied by a prominent bronchial pattern. The bronchial infiltrate is partially obscured by the alveolar infiltrate.
reports of pulmonary infiltrates with eosinophilia in dogs, four of 13 cases were diagnosed as having occult heartworm disease on the basis of necropsy or radiographic findings (Lord and others 1975, Grauer and Riedesel 1977). Occult heartworm tests (ELISA) were negative in both dogs of this report and neither dog showed radiographic changes consistent with heartworm disease. Hypersensitivity reactions also have been reported with fungal and bacterial infections (Noone 1986). No evidence of these infections was found in the two dogs on the basis of culture, cytology and serology. In humans, certain drugs have been reported to cause pulmonary infiltrates with eosinophilia; however, in veterinary medicine, these reactions are poorly documented (Weg 1982). There was no history of drug administration in either dog of this study before the onset of clinical signs. Allergic bronchitis (affecting the airways primarily) and allergic pneumonitis (primarily affecting the lung parenchyma) are hypersensitivity reactions to inhaled allergens. Hypersensitivity apparently results from allergic reactions to moulds, actinomycetes and other proteins deposited in airways of sensitised individuals (Halliwell and Gorman 1989). In humans, such diseases as farmer’s lung, a reaction to Microspora faeni found in decaying organic matter and mouldy hay, and pigeon breeder’s disease, a reaction to pigeon serum proteins, have been identified (Wessels and others 1973, Wilkie 1982, Noone 1986, Halliwell and Gorman 1989). In animals, the allergen is usually not determined, but may be responsible for cases of pulmonary hypersensitivity where an aetiology such as lungworms or heartworms is not identified. This is most likely the case in the two dogs in this report.

Clinical signs

Clinical signs in animals affected with pulmonary infiltrates with eosinophilia vary greatly in severity (Lord and others 1975, Grauer and Riedesel 1977, Noone 1986, Bauer 1989, Halliwell and Gorman 1989). The most common sign is a cough (productive or non-productive) which may get worse with exercise or excitement. Varying degrees of dyspnoea may also be present, with cyanosis in the most severe cases. Weight loss, anorexia, lethargy and fever have also been reported.

Laboratory findings

The most characteristic laboratory abnormality is an absolute and relative eosinophilia. In some cases of pulmonary infiltrates with eosinophilia, however, normal peripheral eosinophil counts are present despite massive pulmonary eosinophilic infiltrates. Most reported cases of canine pulmonary infiltrates with eosinophilia had eosinophil counts greater than 2000/μl (Lord and others 1975, Grauer and Riedesel 1977). In addition, a leucocytosis is often present. Both dogs of this report had leucocytosis and eosinophilia greater than 2000/μl. Eosinophils usually are the predominant cell in tracheal and bronchial washings from animals with pulmonary infiltrates with eosinophilia. Ova or larvae in the pulmonary secretions suggest a hypersensitivity reaction to parasites, while the absence of parasites would be more suggestive of a hypersensitivity pneumonitis or bronchitis, or asthma. Occasionally, eosinophils are identified only by fine needle aspiration of the pulmonary parenchyma.

Radiography

Radiographic changes in pulmonary infiltrates with eosinophilia are variable. Hypersensitivity due to respiratory tract parasites may be somewhat more specific, such as cavitated masses with Paragonimus species. Occult heartworm disease usually causes characteristic radiographic changes, including right heart enlargement, pulmonary trunk enlargement and dilated, tortuous pulmonary arteries. However, these changes may be masked by overlying infiltrate. Most commonly, pulmonary infiltrates with eosinophilia result in patchy areas of alveolar infiltrate and bronchial wall thickening. Often, after glucocorticoid therapy, the alveolar infiltrates lessen, revealing changes characteristic of parasites or heartworm disease, or persistent bronchial wall thickening.

Treatment

Glucocorticoids are the treatment of choice for pulmonary infiltrates with eosinophilia, usually at 0.5 to 2.0 mg/kg for a starting dose (Noone 1986, Bauer 1989, Halliwell and Gorman 1989). The dose is reduced slowly over several weeks, as long as clinical and radiographic signs do not recur. Some animals with pulmonary infiltrates with eosinophilia can be weaned off glucocorticoids completely, while others need maintenance therapy daily or every other day. If parasites are detected, appropriate anthelmintics are used in conjunction with the glucocorticoids. In cases of occult heartworm disease, glucocorticoids may be used for resolution of the hypersensitivity pneumonitis prior to adult heartworm therapy. One dog in this report required several weeks of glucocorticoid therapy but was weaned off therapy completely without recurrent episodes. The other dog required only a short course of therapy for resolution of clinical signs and had no recurrent episodes.
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CASE REPORT

A complication arising after surgical correction of short radius syndrome

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ABSTRACT

A nine-month-old, male whippet underwent corrective surgery for 'short radius syndrome' which had resulted in elbow subluxation. This consisted of a radial osteotomy and placement of K-wires, connected by elastic bands, in the ulna and radius. The implants were removed two weeks later as the elbow subluxation had reduced. However, the correct anatomy was not maintained and the radial head migrated distally. K-wires were reinserted and when the subluxation had reduced, a screw was placed through the ulna into the proximal radius. Recovery was uneventful and at follow-up limb function had improved.

INTRODUCTION

A number of limb deformities can arise from the total or partial premature closure of growth plates. During skeletal maturation, correct forelimb function is dependent on synchronised lengthening of the radius and ulna. Any disturbance in the growth of one of these bones will profoundly affect the other and may lead to a variety of defects. The most commonly affected growth plate is that of the distal ulna (Ramadan and Vaughan 1978). More rarely the distal radial growth plate is affected and this results in elbow subluxation, carpal varus and radial bowing (Clayton Jones and Vaughan 1970). A number of corrective surgical techniques may be utilised, depending on the age of the animal and the exact nature of the defect (Vaughan 1976). These include osteotomies, Kirschner apparatus for external fixation (Brinker and others 1983) and bone lengthening procedures (Prieur 1989). An alternative technique for treating elbow subluxation and maintaining bone length in cases of premature closure of the distal radial growth plate is to transect the radius and insert K-wires percutaneously into the radius and ulna. These are then connected using elastic bands to apply sufficient force to draw the proximal radial fragment up into articulation with the humerus (Mason and Baker 1978). This technique was selected for the treatment of a dog with 'short radius syndrome'.

CASE REPORT

A nine-month-old, male whippet was presented with left foreleg lameness of three months duration. There was crepitus in the left elbow and the joint had a reduced range of movement, with pain on flexion. Radiography revealed premature closure of the distal radial growth plate, causing subluxation of the radiohumeral and humero-ulnar joints. A mid radial transverse osteotomy was performed and two 2 mm diameter K-wires were inserted percutaneously. The proximal wire traversed the ulna (2-5 cm distal to the trochlear notch), the second distally in the radius (2-5 cm proximal to the osteotomy). Strong elastic bands were wound round the protruding ends of the K-wires, to pull the proximal radial fragment into normal articulation with the humerus (Fig 1). A support bandage was applied and the dog allowed lead exercise only.

Two weeks later, the range of movement in the elbow joint was still reduced but there was no crepitus. Radiographically the elbow subluxation had reduced and the osteotomy gap had widened (Fig 2) as the radial head had moved proximally. The K-wires were removed and a Robert Jones dressing was applied to support the osteotomy while it healed.
Complication following treatment for short radius syndrome

After two more weeks, radiographic examination showed the radial osteotomy had narrowed but this was due to distal migration of the radial head rather than to bridging callus. Humeroradial subluxation was more marked than at initial presentation, with only the edge of the lateral condyle articulating with the radius (Fig 3). The osteotomy was repeated and K-wires reinserted as before.

The subluxation reduced in the following two weeks and the K-wires were then removed and a single 3.5 mm ASIF screw was inserted as a position screw through the ulna into the radial head to ensure the reduction was maintained during healing of the osteotomy (Fig 4). At follow-up, six weeks later, the dog had a good range of movement in the elbow and no pain could be elicited. The dog exercised freely but had a slight gait abnormality at the trot as the left foreleg was slightly shorter than the right. The position screw has been left in place.

DISCUSSION

The technique that was selected to treat this case of short radius syndrome has the advantages that it is a quick procedure that requires minimal
specialist equipment and reduces the elbow subluxation, relieving pain and improving limb function. Some movement of the proximal radius appears to occur immediately after K-wire placement. Subluxation in this case had corrected within two weeks but was not maintained when the elastic bands/K-wires were removed. As the subluxation had been present for some time, it is possible that the articular surfaces had become dysplastic, so that accurate, permanent reduction was not possible using the elastic bands/K-wires alone. When using this technique in such cases it may, therefore, be necessary to insert a screw through the ulna into the radius after the subluxation has reduced. Alternatively the elastic bands/K-wires may be left in situ for longer, or some other method of permanent reduction such as plating the radial osteotomy may be necessary.

ACKNOWLEDGEMENTS

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ABSTRACTS

Oesophageal hiatal hernia and megaeosophagus complicating tetanus in two dogs

TWO animals, a 4-5 month old German shepherd bitch and a seven month old collie dog, had clinical signs of tetanus. Each had the classical signs of exaggerated extensor muscle tone, pricked ears, risus sardonicus and protrusion of the nictitating membrane. In addition, both dogs exhibited transient megaeosophagus and hiatal hernia accompanied by gastro-oesophageal reflux and regurgitation. Radiography confirmed these findings. With intensive nursing, the tetanus resolved as did the gastro-oesophageal lesions. Normal radiographs were obtained after recovery.

Dieringer, T. N. & Wolf, A. M. (1991) Journal of the American Veterinary Medical Association 199, 87-89

Juvenile onset polyarthritis syndrome in akitas

TWO young, related akitas (four-month-old female; three-month-old male) were presented with severe, non-erosive immune mediated polyarthritis. There was a cyclical febrile illness with marked joint pain. Seven other akitas have shown similar signs with the age of onset ranging from nine weeks to eight months. Concurrent aseptic meningitis was found in two cases. Fever ranged from 40.5 to 41.6°C and each episode lasted from 24 to 48 hours when they would resolve spontaneously. Episodes progressed in severity and in some dogs became refractory to treatment. Two dogs achieved complete remission with immunosuppressive drugs and two dogs gained partial remission. The condition may represent an ‘overlap’ syndrome, commonly described in man.

Doucerty, S. A., Center, S. A., Shaw, E. E. & Urbe, H. A. (1991) Journal of the American Veterinary Medical Association 198, 849-855
CASE REPORT

Presumptive trimethoprim-sulphamethoxazole associated thrombocytopenia and anaemia in a dog

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Journal of Small Animal Practice (1992) 33, 27-29

ABSTRACT

A two-year-old Scottish terrier was referred for investigation of a chronic skin problem. A diagnosis of generalised demodectic mange with a deep pyoderma was made and treatment commenced with trimethoprim-sulphamethoxazole and amitraz washes. On the sixth week of treatment the owner reported that the dog had developed haematuria. Investigations revealed that the dog was thrombocytopenic and anaemic. Antimicrobial treatment was stopped and the platelet count returned to normal over a three week period. A diagnosis of trimethoprim-sulphamethoxazole associated thrombocytopenia was made.

INTRODUCTION

Bacterial skin disease is common in the dog with the most common pathogen being Staphylococcus intermedius (Berg and others 1984, Ihrke 1987, Muller and others 1990). Current guidelines for treatment of deep pyodermas often emphasise that prolonged therapies are required and treatment periods of two to three months are often advocated (Codner 1988, Muller and others 1990). Trimethoprim-sulphonamide combinations are commonly chosen to treat such infections as this drug is both efficacious and cheap (Ihrke 1987, White and Ihrke 1987). Anaemia and thrombocytopenia associated with trimethoprim-sulphonamide therapy has been previously reported in the dog (Giger and others 1985, Weiss and Adams 1987, Medleau and others 1990) but this appears to be rare. A case of trimethoprim-sulphamethoxazole associated thrombocytopenia and anaemia is reported here. The diagnosis was based on thrombocytopenia developing during treatment with trimethoprim-sulphamethoxazole and the subsequent resolution of the condition on withdrawal of this drug. Test-dosing using trimethoprim-sulphamethoxazole with reproduction of anaemia and thrombocytopenia would be required to confirm this diagnosis but was not attempted as this procedure is considered to be both dangerous and unethical (Baker and Stannard 1975, Scott 1978, McEwan and others 1987).

CASE REPORT

A two-year-old male Scottish terrier weighing 8.5 kg was referred to the University of Glasgow Veterinary School for the investigation of a chronic skin problem. Clinical examination revealed a bright dog with a superficial lymphadenopathy. The main findings were dermatological and these included areas of alopecia, crusting lesions with purulent discharge involving the trunk, limbs, feet and chin. Skin scrapings revealed numerous demodex mites at all stages of development. Staphylococcus intermedius was recovered from a swab sent for bacteriological culture and sensitivity. Wood's lamp examination and fungal culture was negative for dermatophytes. Routine haematology and blood chemistry was unremarkable. A diagnosis of generalised demodectic mange with a secondary deep staphylococcal pyoderma was made and treatment commenced with trimethoprim-sulphamethoxazole (Co-trimoxazole 480; Approved Prescriptions Services) half a tablet twice daily (28 mg/kg). After one week, the bacterial infection was under control and weekly washes with amitraz (Taktic, SmithKline Beecham Animal Health) 0.05 per cent were instituted. The dog was examined...
weekly at the veterinary hospital before washes.

Six weeks after the start of antibiotic treatment the owner noticed that the dog had developed haematuria. On examination the dog was bright but had slightly pale mucous membranes. Petechial haemorrhages were present on the tongue and penis. The urine was a dark red colour and analysis showed marked haematuria to be present. Whole blood clotting time, a clotting profile (including prothrombin time, kaolin cephalin clotting time and thrombin clotting time) and blood chemistry were normal. The main haematological finding was thrombocytopenia with low packed cell volume, haemoglobin concentration and red blood cell count. Radiographs of the dog's chest and abdomen were unremarkable. A tentative diagnosis was made of drug induced thrombocytopenia and treatment with trimethoprim-sulphadiazine was stopped. Amitraz treatment was continued and the dog examined at weekly intervals before washes. Platelet counts gradually returned to normal over the next three weeks (Table 1).

Table 1. Platelet counts in the dog over three weeks after treatment

| Day | Red blood cell count (10^12/litre) | Haemoglobin concentration (g/dl) | Packed cell volume (litres/litre) | Platelet count (10^9/litre) |
|-----|-----------------------------------|---------------------------------|---------------------------------|-----------------------------|
| 0   | 5.40                              | 11.0                            | 0.372                           | 269                         |
| 42† | 4.36                              | 11.0                            | 0.312                           | 011                         |
| 49  | 3.66                              | 9.7                             | 0.265                           | 006                         |
| 57  | 4.41                              | 11.6                            | 0.327                           | 0*                          |
| 63  | 4.93                              | 12.2                            | 0.347                           | 076*                        |
| 70  | 5.12                              | 12.1                            | 0.363                           | 272                         |

* Platelets clumped with normal numbers
† Treatment with trimethoprim-sulphamethoxazole stopped

DISCUSSION

Antagonists of folic acid synthesis such as trimethoprim and sulphonamides have been used as antimicrobial agents for many years. Individually these drugs are bacteriostatic but in combination they are generally bacteriocidal, blocking sequential steps in bacterial folic acid synthesis. Sulphamethoxazole is commonly combined with trimethoprim for use in man while in the dog sulphadiazine-trimethoprim combinations are more common. Neither the choice of sulphonamide to be used with trimethoprim nor its pharmacokinetics are necessarily important (Barnett and Bushby 1970, Bushby 1980).

When tested against 269 strains of 26 species of bacteria of animal origin trimethoprim-sulphamethoxazole was found to be very effective (Barnett and Bushby 1970). It would therefore appear that trimethoprim-sulphamethoxazole combinations are efficacious in animals but it should be noted that this combination does not have a product licence for use in the dog. Trimethoprim-sulphamethoxazole was used in the case reported here on economic grounds.

Recommended dosages for trimethoprim-sulphadiazine in dogs range from 15 to 30 mg/kg twice daily and a similar dosage for trimethoprim-sulphamethoxazole can be used. The higher dose range is often advocated for the treatment of bacterial skin disease (McCaig 1970). At recommended dosages trimethoprim-sulphadiazine has been reported to have a wide margin of safety.

Twelve dogs receiving 300 mg/kg trimethoprim-sulphadiazine over a 20 day period were reported to show no significant haematological or blood chemistry changes when compared to control dogs (Craig and White 1976). Lording and Bellamy (1978) however, reported a significant decrease in packed cell volume in dogs treated with trimethoprim-sulphadiazine at 45 mg/kg twice daily over an eight week period. In the same study, platelet numbers were substantially decreased after six weeks treatment but not statistically significantly different from control dogs.

Commonly reported adverse reactions attributed to sulphonamide drugs include keratoconjunctivitis sicca (Morgan and Bachrach 1982), polyarthritis (Giger and others 1985) and skin eruptions (Scott and others 1976, Medleau and others 1990). A variety of sulphonamides have been incriminated including sulphadiazine and sulphamethoxazole. Thrombocytopenia associated with trimethoprim-sulphonamide treatment in the dog appears to be rare. Giger and others (1985) reported six dobermann pinchers which developed polyarthrosis during treatment with trimethoprim-sulphadiazine. One dog also became thrombocytopenic but no details were given. Medleau and others (1990) reported six dogs of various breeds, but not dobermann pinchers, which developed skin eruptions when treated with either trimethoprim-sulphadiazine or trimethoprim-sulphamethoxazole. One of these dogs was also anaemic. Weiss and Adams (1987) reported a case of anaemia and thrombocytopenia in a dog treated with trimethoprim-sulphadiazine and fenbendazole. In this case, anaemia developed after 14 days treatment and complete recovery was seen within 14 days of stopping treatment.

In the case reported here the time of onset of anaemia with thrombocytopenia and the period required for recovery after stopping treatment closely follows that of the dogs studied by Lording and Bellamy (1978). Anaemia in these cases may be due to a block in DNA synthesis resulting in suppression of haemopoiesis. A low serum folate level may exacerbate this (Weiss and Adams 1987). Serum folate measured three days after stopping trimethoprim-sulphamethoxazole was normal in the dog reported here.
Veterinary surgeons should be aware that although it is rare, dogs receiving trimethoprim-sulphonamide drugs may develop anaemia and thrombocytopenia particularly when prolonged courses of these drugs are used.

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ABSTRACTS

Hyperthyroidism associated with a thyroid adenoma in a dog

An 11-year-old spayed German shepherd dog had a ventral cervical mass which was firm and freely movable. The bitch had lost weight, despite an increased appetite. Laboratory tests showed significant increases in T3 and T4 levels indicating hyperthyroid levels. The mass was easily dissected out and was found to be a cystic thyroid adenoma on histological examination. T3 and T4 levels had returned to normal one week after surgery. Most cases of hyperthyroidism are associated with thyroid carcinoma. This case illustrates the necessity of obtaining a biopsy before giving a hopeless prognosis.

Lawrence, D., Thompson, J., Laughton, A. W., Calderwood-Mays, M., Ellison, G. & Mannella, C. (1991) Journal of the American Veterinary Medical Association 199, 81-83

Diabetes mellitus induced in a dog after administration of corticosteroids and methylprednisolone pulse therapy

An eight-year-old spayed chow was diagnosed as having pemphigus foliaceus. Initial treatment with immunosuppressant doses of prednisone and azathioprine was not tolerated. Low-dose therapy produced a four month remission, after which generalised skin lesions returned. Methylprednisolone pulse therapy was instituted. The pemphigus lesions slowly resolved. A week after this treatment was finished diabetes mellitus was diagnosed by blood and urine analysis. For three years the dog has remained well, regulated on alternate day oral prednisolone.

Jeffers, J. G., Shanley, K. L. & Schick, R. O. (1991) Journal of the American Veterinary Medical Association 199, 77-80
THE 34th annual general meeting of the Association was held at the International Convention Centre, Birmingham on April 7, 1991, at 12.00 hours.

1 President’s introduction
The President, Mr C. J. Price, welcomed everyone and declared the meeting open.

2 Apologies for absence
Mr F. Nind informed the annual general meeting that apologies had been received from Mr H. E. Carter, Mr O. Graham-Jones, Mr M. Young.

3 Minutes of the 33rd annual general meeting
The President proposed that the minutes of the 33rd annual general meeting, held on April 22, 1990, as published in the Journal of Small Animal Practice (January 1991) Vol 32, pages 35-43 should be adopted. This was accepted by those present and the minutes were signed by the President as a true and accurate record of that meeting.

4 Matters arising from the minutes
Mr Gourley said, Mr President I think there is a matter in the minutes of the last meeting which gives me an opening to say something about neutering.

The RSPCA eventually realised that by rehoming cats and dogs which were capable of reproducing they were potentially adding to the surplus and stray animal problem. In February 1990, in an effort to help solve the stray problem it became RSPCA policy that cats and bitches should be neutered before, or at the time of, being rehomed by the RSPCA. This raised the problem of what to do with litters at seven or eight weeks old. Experience had shown that if they were rehomed at this early age many would never be neutered. Large numbers of these litters could not and should not be kept in kennels until the traditional age for neutering, and many healthy puppies and kittens were being put down. The members at the RSPCA AGM in June 1990 were persuaded that these litters could be neutered and rehomed immediately. The following statement was later agreed with the chief veterinary officers of the RSPCA:

As a result of two motions on neutering cats and dogs adopted at the RSPCA AGM on June 30, 1990 it was agreed that:

- Pets can be neutered at any age, e.g., when litters are being rehomed at seven or eight weeks old. To prevent unwanted pregnancies they must be spayed before the first season. It can be to the benefit of male dogs as well as reducing the problems they cause that those not required for breeding, etc., may be castrated. As with bitches they should be done before puberty and can be done as early as seven or eight weeks old. However, when it should be done must be agreed with your veterinary surgeon.

- Any possible slight disadvantage, if it is eventually proven that there is any, must be weighted against the contribution which early neutering may make to the surplus dog problem in densely populated urban areas such as Greater Manchester where at least 15,000 unwanted dogs are taken in by the Manchester home for lost dogs every year in addition to those dealt with by the many other animal rescue organisations.

- Those vets who have not yet come out from under the skirts of their traditional teachers should consider whether by refusing to neuter early they are making the best possible contribution to attempting to solve the surplus and stray dog problem.

Mr C. J. Price said, What course
of action would you like the AGM to be taking?

Mr Gourley said, It may be too early for the BSAVA to be thinking to promote this idea in National Pet Week (NPW) but perhaps if they can't do it this year they might do it next year.

Mr Price said, Just to clarify Jim, sorry to refer to it but I am sure most members are aware that there is a major scientific investigation in hand and it is my feeling that it would be wrong to pre-empt the results to be unravelled by that investigation, but thank you very much for those comments.

5 President's address

Ladies and Gentlemen, it has been my pleasure to preside over yet another phrenetic and action-packed year in the Association's history.

As 1990 appeared over the horizon, it had become apparent not only to me but to many members of the Executive that some fine tuning of the infrastructure was necessary to equip the Association to launch itself efficiently and positively into the '90s. Concern was heightened by the realisation that the demands made of individuals by the Association increased every year and the day was fast approaching when it would be impossible for any practice to release veterinary surgeons to the extent that these roles required. Practices could not be expected to bear this burden any longer. It was time to acknowledge once and for all that the major strength of the BSAVA is the energy it derives from its volunteer corps and its main asset is the time they put in; it was essential to do everything possible to increase their efficiency and save their time. So a major restructuring of the Administration Office was undertaken and a clear three year plan instituted to equip it to lift much of this burden from the shoulders of the Executive. When I took over the chain of office, plans were already underway for the most important step in this process and in May, one of the highlights of my year was when the Association purchased Kingsley House. We moved in in October and as most of you know, the new Administration Office was formally opened by the Mayor of the Borough of Tewkesbury on December 6. But this major landmark in the Association's history is only stage 1 of a vital three year plan to improve the secretarial support for those who run the Association in their spare time. There is still much to do in terms of equipment, facilities and staff training before we can consider these objectives to have been realised. The Association now employs a permanent full time Administration Officer and seven full time permanent secretaries - all part of this vital strategy.

Running in tandem with the restructuring and redefinition of the role of the Administration Office was a re-evaluation of the objectives of some of the standing committees. Some of the committee functions were no longer viable and many were highly unproductive. So, once again, the efforts of our volunteers had to be channelled more strategically. What this has meant in practice has been a redefinition of the roles of VN (Veterinary Nursing) Committee P&PR (Publicity and Public Relations) Committee and Scientific Committee and the creation of two new committees, a complete revision of the committee infrastructure to ensure that the Association's activities were performed as efficiently and competently as possible. We have had to learn that the Association is unable to do all possible work that comes its way; it must concentrate on essential and beneficial topics and prune the unnecessary.

VN Committee was already taking on new roles and its continued existence with its previous remit of veterinary nursing matters only was becoming difficult to defend and had been already challenged many times. So committee's role has been redefined to encompass all non-scientific areas of interest to members, for example, health and safety legislation, COSHH (Control of Substances Hazardous to Health) regulations, ionising radiation regulations. It has, of course, continued to look after veterinary nursing matters and the Chairman has played a very major role in the two main issues this year, the VN Transfer Scheme and discussions with the NCVQ (National Council for Vocational Qualifications). This committee has been renamed the Members Services Committee and under the Chairman's guidance it has adopted its new role with optimism, positivity and enthusiasm.

The old P&PR Committee was another committee which needed to restructure if it was to successfully launch itself into the '90s. In all the years that I have been involved with the Association it has been quite apparent to me that this committee has been a dustbin into which projects have been tipped if there has been no more suitable place to dump them. The committee has been inhibited, restricted and tied down and it was necessary to hack away the unnecessary and define its remit simply as the promotion of the BSAVA, the promotion of the small animal arm of the profession, and the dissemination of information to the public and to veterinary surgeons. This has cleared the way for the very exciting new ideas and projects generated this year by the committee under the strong leadership of its talented Chairman.

Scientific Committee is another committee which needed to go under the microscope. Many of us recall the present Chairman's predecessor being buried by paperwork and struggling under the enormous burden of responding to an unending stream of enquiries with the help of a very small committee. Under the present Chairman's guidance the committee's
role specification has been redefined. Many enquiries have been handled elsewhere within the Association and the decks have been cleared so the committee could concentrate on its remit of collecting and disseminating scientific information to members.

On the political front my position is well-known and unchanged over many years. As far as I am concerned the BSAVA is a scientific association with a primary educational role but it is right that it should have opinions on contemporary issues and that on occasions it should promote them. Political activities have, as far as I can tell, always been fielded by the Officers and particularly by the President of the day. Certainly there has never been an infrastructure to accommodate this area of the Association's activities. This year the foundations have been laid for the formation of a Political Committee.

The Officers have met 11 times this year, with advisers where necessary, with a full agenda and minutes to discuss the political issues of the day; major matters have been progressed to Advisory and Finance Committee and thence to Council, fully supported by discussion documents and recommendations. This structure has focused input and channelled decision making in a way that was not previously possible and enormously enhanced efficiency. The foundation is there, should Council so wish, for the establishment of an European Committee.

So it has been a year of change; changes necessitated by the Association's growth and increased activity; changes which I am confident will equip the Association better to handle the challenges of the '90's; changes introduced in response to the fairly urgent need for the evolution of some aspects of the Association's infrastructure.

But of course I haven't yet referred to the most spectacular change of the year. It was quite apparent to all of us at last year's Congress that we had already outgrown the facilities available at Harrogate. It was very hard for all of us to turn our back on its genteel Victorian elegance but BSAVA Congress is first and foremost a scientific Congress and as such there was really no alternative to holding it at the best venue for such a Congress to be found in Europe. I hope you have all enjoyed these outstanding conference facilities, the luxury and comfort of the lecture theatres, the outstanding audio/visual facilities and the return to the principle of 'all under one roof'. I hope you have all enjoyed the excellent facilities for the commercial exhibition which have allowed the new imaginative layout and I hope you will all applaud the immense courage of Congress Committee and its Chairman in pursuing their goal of an ever-improving Congress, when it would have been so much easier to have rested on their laurels and stuck to a tried and tested formula. Their professionalism, skill and sheer hard work have, I am sure, been rewarded by this exciting and innovative Congress which is not only seeing the start of a new era of Congress facilities in the UK but also a new era in BSAVA Congresses.

Well, I am sure you will be relieved to hear that some things have been left unchanged. The Association's publications, the Association's CE (Continuing education) Courses and the Journal of Small Animal Practice all continue to grow in stature and strength; having already identified the services required by members they have continued to supply it to everyone's satisfaction. The Association is now a very significant publisher of small animal veterinary texts, comparable with any in the UK and I look forward to the day, not too far away, when it actually becomes the market leader in its field. The Chairman of Publications Committee retires today and I am sure you would wish me to convey the Association's gratitude to him for his remarkable achievement in publishing five new manuals and commissioning five more during his term of office.

Education Committee has continued to flourish under its new Chairman who has built on, and expanded, the successful projects of his distinguished predecessors. This essential arm of the Association's education remit goes from strength to strength.

As far as the Journal of Small Animal Practice is concerned, its changes took place over two years ago now and this year has been a year of consolidation and growing status and respect for the Journal, a year of firm and clear management of a publication which is so popular and successful that we pay it the enormous compliment of taking it for granted.

During the past year it has been my pleasure to tour the regions and I can report to you that with only one surprising exception right here in the Midlands, the regions are thriving and holding regular, popular and well attended local meetings.

In conclusion, I think it is useful to remind ourselves of all the things that the BSAVA does. It is one of the largest publishers of small animal veterinary books in the UK, it publishes a monthly journal of international repute, it organises more than a dozen immensely successful CE courses
every year, it stages approximately 70 local scientific meetings every year and it stages an annual Congress which is the largest veterinary congress in Europe. It publishes a monthly newspaper and collects and disseminates information to members on both scientific and non-scientific matters. It promotes the small animal arm of the profession to the general public. It is evolving an infrastructure to ensure its full participation in the rapidly evolving European scene. It responds to enquiries from Government, national organisations, the BVA and the general public on matters relating to small animals, and, most importantly, acts as adviser to the BVA, Pet Health Council, JACOPIS, and many other bodies on these matters.

All this, ladies and gentlemen, is achieved by volunteers in their spare time. It has been an honour, a privilege and a pleasure to lead that team for a year.

It is quite clear to me that the only lasting influence I will have had on this Association will be via those individuals I have introduced, supported and encouraged during my years as an Officer, those in whose hands the future of the Association rests. I look around me today with remarkable confidence for the future.

6 Honorary Associate Membership Award

The President reported that at the Meeting of Council on November 8, 1990, Mr A. R. W. Porter was elected to Honorary Associate Membership of the Association. Honorary Associate Membership of the BSAVA is awarded to a non-veterinarian in recognition of outstanding services to the Association, small animal medicine, surgery or research. The President invited Professor N. T. Gorman to say a few words.

Professor Gorman said, Mr President, distinguished guests, Past Presidents, ladies and gentlemen, as you all will be aware Alastair Porter retired from his post as Registrar of the Royal College of Veterinary Surgeons at the end of January after 25 years of what he himself describes as a hectic, enjoyable and memorable time. I quote from his retirement speech to the RCVS Council on February 6 when he said he rejoiced in the progress which the profession had made in that time. He had had a major guiding influence on the profession during this period and the professions excellent standing in Government, Europe and education is in part a reflection upon him. There have been some excellent summaries of his achievements presented in recent months and I do not feel able to surpass these today. You will all have seen brief summaries of his achievements in the RCVS newsletter which unfortunately didn't reveal one of his very few weaknesses, that of being a supporter of Brighton and Hove Albion or as it should be more aptly known: Brighton and Hove and Albion nil. It is not known to many that one of Alastair's very last duties in the college was to do one of his friendly spot checks on a practice in his home county of Ayrshire. Upon arrival he was fascinated by the news that the principal now kept a Vietnamese pot-bellied pig, African grey parrot and a wallaby. He kept these in the courtyard at the back of his practice, and being an inquisitive man he naturally wanted to see these beasts. Whilst viewing the collection at the back of the courtyard, a young Australian assistant at the practice came back to be greeted by the horrific news that the Registrar of the Royal College was visiting the practice and was currently out in the courtyard looking at the Vietnamese pot-bellied pig, African grey parrot and wallaby The Australian graduate was aghast, and said, I really must meet this man who signed my certificate, how will I recognise him? The principal said, 'He's the one in the grey hair, wearing a suit and carrying a briefcase'.

Most of us were introduced to Alastair in his short lecture course on jurisprudence in the undergraduate curriculum. A subject that does not naturally sit well with veterinary students but we were all impressed with his persuasive manner and ability to cover what at times can only be described as turgid information in such an erudite and entertaining manner. I recall after the completion of these lectures that I had wished that he would have given our animal husbandry lectures on nutrition. His ability as a lecturer and raconteur has been a great asset as heard so impressively on Thursday evening. In the RCVS he has provided stability over the past 25 years whilst other people have come and gone. I suppose I cannot help but think of Alastair as the kind wise man at the RCVS who in many ways can be likened to Sir Humphrey out of 'Yes, Prime Minister', but in his case the book and the series would be 'Yes, President'. He has had difficult times I am sure with some Presidents and Officers and will have had to draw upon his legal and great diplomatic training in dealing with them. In response to one President who described the effect of the EC on the veterinary profession as a mere storm in a tea cup his answer would have been, 'Well President that is one point of view, but I have prepared a paper on this matter that you may care to read and I would like to point out that the other registrars seem to agree with me'. In response to another President who stated that the postgraduate qualifications would have been the final nail in the coffin of the profession, he answered, 'but think how good it will be on the other side when they all go that way'. I, like so many, look forward to reading his memoirs. In relation to small animal practice, Alastair has been of enormous help, the development of veterinary nursing, specialisation, European matters, practice register, practice standards – which
are all very close to the heart of the Association — have been greatly aided by his efforts and for this we are indeed very grateful to him. Alastair is not severing his links with the profession and will have a significant role in guiding us through the corridors of power in Europe. We know he will give the profession and this Association sound advice in this area and the Association looks forward to working with him over the forthcoming years. On that note Mr President I would like Alastair to come forward to receive his scroll from you.

The President presented the scroll to Mr Porter.

Mr Porter then said, Mr President, you did say about 150 words and the only way a lawyer can do that is to write it down and divide what he has written by 10. So you will forgive me for the reading of what I have to say. In thanking you Mr President and your Association for the honour which you do me today I cannot but reflect that the BSAVA and I go back a long way now. I have known every single one of the BSAVA Presidents although a few of them had gone through the chair before I joined the RCVS. My first Congress was the Congress of the late Noel Ormrod and if I remember rightly the guest of honour at his dinner on the Saturday evening, white tie in those days Mr President, was a certain Professor John George Wright and that was my first meeting with somebody who was, and was to remain, a legend in the profession. I have not missed a BSAVA Congress since then and we have been involved in dialogue on many interesting things over the years such as veterinary training and the creation of veterinary hospitals both of which we now take for granted but were in the one case embryonic and in the other non-existent in those early days. Your Association, Mr President, has always been associated with the younger end of the profession, with vigorous endeavour and with exciting initiatives, and long may that spirit endure. I am very grateful and honoured that as an Honorary Associate member I may join you on your onward journey and hopefully not entirely as a passenger. Thank you sir.

7 Honorary Secretary's address

Mr President, fellow Officers, members and guests. This is my third and last presentation to you as Honorary Secretary. You will be pleased to hear that it will also be my shortest.

It is traditional to start with some statistics from the year and I am quite happy with tradition:

Membership numbers stood at 3731 at the last count just before I joined this meeting and up to a few minutes ago we had had 200 more registrations for this Congress than we had last year in Harrogate. The total sales for publications during Congress have topped £17,500.

In the last 12 months Council has met three times and there have been three rounds of committee meetings. The agendas of, firstly, Advisory and Finance Committee and more recently Council have been rewritten to encourage debate and to give more time to discussion of important or contentious issues and less to routine presentation of reports. Council costs the Association over £6 per minute in addition to what it costs individual members and it is important to spend this time well. I believe that the major changes introduced to the running of these Committees has done just that.

Officers have met on 10 occasions, seldom finishing their deliberations before midnight. These meetings also have a more predictable and organised structure. We have come to anticipate the acerbic comments from the Junior Vice-President on the buffet, the battle with the girls on the registration desk of the Ibis Hotel to convince them that we really do have a booking and the juggle with the taps to get the water at the right temperature in the shower.

The detail of the subjects covered is included in the reports which were awaiting you at the door when you came in and once again I will follow tradition in pleading with the members to read what we have been doing with nearly a million pounds of your collective money.

What then have been the features of life this year? One of the most far-reaching ones has been the purchasing of a fax for each of the Officers. This has speeded up communications to a remarkable degree. Comment and opinion which used to be requested for the end of the month is now demanded in days or in some cases even hours. Scribbled bits of paper crawl through the slot at all hours of the day and night. Those of you used to these machines will know that they record the date and time that they are transmitted at the top of the sheet. We were all very impressed with the hours that Neil Gorman works when sheets appeared with 02.00 and 03.00 am on them. It was only later that we learned that it was possible to feed the machine documents during the day and ask it to transmit them later. One of the casualties of this arrangement is the 'Any Other Business' slot at meetings of Officers. Being the last one the Officioral pecking order I did delight in bringing some pithy matter to Officers attention in the early hours of the following morning when they were all looking forward to a nightcap at the bar.

The faxual experiment has worked. I have had a delicious sense of pleasure when the same enquiry has been sent to BVA and BSAVA simultaneously. By the time that the relevant secretary has copied the letter and posted it out to me from Mansfield Street I have, on occasion, already gathered Officer comment, formulated a reply, and dispatched it on its way.
On December 18 last year, shortly after my choice of successor had been confirmed by the Past President’s meeting, I had a note headed ‘Simon’s first thoughts’. The wonder of it. It is possible after all to get a veterinary degree without having a single thought in your head. Never mind, I know that in the next three years he will have ample opportunity to carry on thinking. Usually when the anaesthetic is not going too well, there is a bleeder spouting and the President is on the phone.

I have enjoyed my three years as your Secretary. Maybe the same can not be said for my family and practice but I do most sincerely thank them for helping me to take up this challenge. I have seen a World Congress, a new home for the Registration Office, the coming and going of three Presidents. With Simon to take on my role I know that I leave it in good hands.

I don’t think there are many people who are here that will disagree with me that the President is the man who does the most work for the Association. This year he has been interested in absolutely everything; he considers even the minutest detail with careful use of the four 'F’s: faxes, phones, filing cabinets and photocopiers and I assume it isn’t only the Officers who have concern over my spelling.

Yesterday evening we heard a very erudite tribute to the lady behind the President, to Valerie who has given her unstinting support to the President throughout this year and it’s only very occasionally that the veil of patience and support is parted a little. I am sure I am not alone in hearing the comment ‘After 12 o’clock on the 7th of April I’m putting a lock on that study door’. Your Honorary Secretary had a very convivial evening with the proper secretaries on Thursday night and we considered this matter and in view of the fact that Valerie has been travelling the world supporting the President she probably hasn’t had time to purchase this lock. Valerie, we have gone out and bought one for you and if you would like to come forward I would be delighted to pass it over to you.

Ladies and gentlemen, I shall now be taken to a place of secure retirement where I can contemplate the meaning of life, the universe and P&PR Committee and maybe come up with the answer to Julian’s question that he hopes that the Secretary will eventually understand what P&PR Committee does.

Mr President, that concludes all I wish to say. I will try to answer any questions that members may have and beg to propose the adoption of my report.

Mr Green said, I have the following question on the report of the Journal of Small Animal Practice in 1990/91 which was available for our collection when we arrived. I wish to ask something about the new sponsorship package. I would like to have it explained please to the membership the rationale behind the probable incorporation of a publication from a commercial house with the Journal of Small Animal Practice in the same envelope: seems a rather tight marriage. Obviously there is financial reward involved in this and perhaps it could be divulged how long this is for. For many years it hasn’t been the practice normally for BSAVA to give considerable advantage to one sponsor over any other and one wonders if this facility has been offered to other commercial companies for their productions. It would seem to me that it is almost like something that some may remember here and certainly the Editor of the Journal of Small Animal Practice will remember, when we went through a rather awkward phase called product endorsement. And I wouldn’t like to see this Association come under one particular banner only. I am not doing this because I don’t like the company involved. It is because I think the Association should spread its net and not be too entirely dependent. The other questions I would like answered please sir are if the BSAVA are so hard up and cannot afford to run the Journal out of their own funds, one might pose the question ‘Why was Kinglsey House purchased?’. I know the answer but I think it is a good question to ask, if we are short of funds. I think it was a good purchase personally. If the BSAVA also is in need of Journal sponsorship, why didn’t we ask five or six companies to provide a fifth or sixth of the money rather than going to one, I know it is a lot easier to get it from one. Finally, not to be flippant about it but I feel we have sold our independence for 30,000 shekels of silver.

Mr Price said, Roger thank you very much for your question. It is very unfortunate that the Editor of the Journal could not be with us to explain the full background to the scenario. Perhaps I can go into some detail. I hope no one in this room will forget the difficulties that the Journal was in two or three years ago, and I don’t think we ought to pretend it wasn’t in great difficulties at that time. It lost its Editor and its Chairman of the Board of Management and at that stage it took on a new Editor, a Chairman of Board of Management and a new publisher and from that really very shaky basis it has built itself back to the very substantial Journal which we all admire. In so doing it has incorporated a change in format, the binding-in of the news and much else that has made it not only a popular but highly prestigious Journal. These changes have been going on for two or three years and support was very generously offered two or three years ago to help the Journal get itself back on its feet again. This was most definitely not exclusive support. It was available to any of the good companies that support the Association to offer help. Many of them knew we were in trouble and I think we should be very grateful to Pedigree Petfoods. I
think at that stage if the Treasurer had come to the AGM and said the Journal is in trouble and members’ subscription would have to go up £10 or more to resurrect the Journal I think the AGM may just have turned that request down. I am extremely grateful to Pedigree Petfoods for the support they have given for the rebuilding of the Journal. Somewhere around August/September each year the Editor and the Publisher meet with Pedigree Petfoods to see if the educational grant can be extended for another year. I think personally it is right that the Editor should be able to make that type of negotiation on the Association’s behalf and he did so this year and he came back to the Officers and the Board of Management with a package which the Board of Management found acceptable. That package was taken to Advisory Committee which considered it very fully and agreed again in principal with the package. The concern in Advisory Committee was that although we had the American edition of Waltham International Focus before us we did not actually have the British edition and Advisory. I think quite wisely, felt it couldn’t approve this deal with its support without having the first edition before it. So Advisory waited to see it. Having seen it, the Chairman of Education Committee is very happy with the way that it marries in with his remit for providing the commissioned articles; the overview type of article that has been extremely difficult for Education Committee to commission. So there is a feeling that this is a publication of high scientific standing which actually compliments the Journal without having any in-house promotion whatsoever that would be detrimental to the Association. The state of play at the moment is that the Board of Management will be meeting quite soon and with the first edition before it. It will be able to consider whether it is appropriate to continue the arrangement that was drawn up with the Editor. That decision by the Board of Management will be taken to Advisory Committee and I am sure Advisory Committee will take full note of the comments that have been made this morning.

Mr Foster said, Assuming that another magazine might be of similar scientific standing can I have the assurance of the Presidency that that too would be considered to be incorporated within the same package in future?

Mr Price said that any company would be very welcome to negotiate with the Editor to help support the Journal of Small Animal Practice. The support provided by Pedigree Petfoods was not exclusive.

Mr Beynon said, If the Board of Management had not agreed to put this other magazine in would the money still have been forthcoming from Waltham?

Mr Price said, That is a question that only the Editor could answer and it is most unfortunate he is not here. The negotiations were carried out with the Editor on the Association’s behalf, but I am very confident that the answer would be yes. But I would rather he was here to confirm that. Can I just emphasise that no other company has come forward and offered to help us during our difficult times with the Journal. So its a theoretical question, the situation hasn’t arisen.

Mr Thompson said, Bearing in mind that this magazine, and I’m not doubting the scientific value of the presentation one iota, but in fact have we as an Association any editorial control over what appears in the magazine and relating to the scientific articles bearing in mind it is actually circulated with our Journal. In fact is it a scrutinised Journal or is it one just produced as a commissioned article by the company concerned?

Mr Price said, I am sure we all appreciate that the Editor is a distinguished Past President of this Association. There is a very close liaison between the two editors to ensure that there is no clash of material and that the two will blend nicely together. And of course the Editor of our Journal will see the first copy before it is inserted in the same envelope.

Mr Lawton said, As a member I would be happier paying the extra £10.00 per year so that we kept our independence.

Mr Harper said, Do we actually have any figures as to how much the membership currently would have to be put up if we weren’t to be involved in this sponsorship?

Mr Price said, When it began it would have been a simple matter of increasing everybody’s subscription by £10.00. The current situation is that this financial support has been generously offered in order to help underpin the rebuilding of the Journal. I don’t think it is a simple matter of the Journal needs x amount of money to save it from sinking, I don’t think that’s the question at all. It is an educational grant that is being offered.

Mr Harper said, Just like to echo Martin’s comment that as a member I would rather see us remain totally independent even if it meant a marked increase in subscription fees than stump to accept sponsorship deals from commercial companies.

Mr Beynon said, I think it is rather unfair Mr President to say the subscription will have to go up by £10.00. You only have to look at the balance sheet for this year. The Association has made vast profits in these last few years. Surely it would just mean we would have made slightly less profit. You would not have had to put up the membership sub at all?

Mr Price said, The Treasurer’s report will follow in just a second. I think the Association finances have been superbly managed by Lynne’s predecessor and are being wonderfully managed by her. The Association is financially much stronger now than it has ever been in its history but that is a very recent state of affairs.
Mr Harper said, Could I propose that we have a show of hands here as to how many members are in fact totally happy with the concept of accepting this sponsorship deal as against a possible increase in subscriptions?

Mr Price said, I don’t think that’s necessary. It is quite clear to the Chairman of the Board of Management the feeling of this meeting and that will be conveyed back to the Board of Management.

Mr Sutton said, I would just like to emphasise that by accepting this sponsorship package we are not putting ourselves in the pocket of the sponsor, we still have our independence and they do not have exclusivity in any way.

Mr Price said, Thank you very much John that is the point.

Mr Chandler said, Mr Chairman I rise almost with some fear as to my own credibility and being accused of being biased for that matter for obvious reasons. I feel there is one point I should make clear to the membership, simply because they were not being informed on this matter, that the situation you drew attention to three or four years ago was simply because the Journal had effectively subsidised the membership for three preceding years. No money had passed hands from the membership to the Journal, and that was the situation it found itself in and by saying £10.00 a head would be necessary to resurrect the Journal that really reflected what had happened in three previous years.

Mr Price said, I think, Mr President, one has got to look at this as a form of advertising. Do the members really want to cut our advertising because we are promoting products in the Journal? I mean this is really very little more than that. The Editor has complete control about what goes in this Journal and if it should be submitted and it did not reach his approval he has the power to decline its inclusion. So really what we are doing is extending advertising and giving the opportunity to broaden the information being given to our members in a perfectly acceptable way.

Mr Price said, Thank you very much Tim. Would anyone else like to speak? I am sure the Chairman of the Board will take on board all the points that have been made. This matter will be very high on the agenda for their next meeting and will be back on the Advisory agenda. Thank you very much for that debate.

Are there any other questions for the Secretary?

The adoption of the Secretary’s report was proposed by Mr Nind and seconded by Mr Thompson. It was passed unanimously.

Mr Price then said, It has been my remarkable good fortune as Junior Vice-President, President Elect and this year as President to work alongside Fred. It’s impossible to imagine a more thorough or conscientious Hon. Sec. for the Association. Despite being by nature a lark rather than an owl he has tolerated and enjoyed our nocturnal meetings and has been up way before any of us, preparing the minutes, before we are even in to breakfast. Fred has been the lateral thinker in the group, often introducing aspects that had not occurred to the other Officers. He’s also been our collective conscience, an idealist of very high standards and very high principles. He retires today after three years of outstanding and dedicated service to the Association as it’s Hon. Sec. and I would like to thank him both personally and on your behalf.

8 Honorary Treasurer’s report

Mrs Hill said, Mr President, Officers, Past Presidents, fellow members of the BSAVA and guests, you have before you the accounts for the year 1990.

This has been a very busy financial year for the Association with the fruition of the last three year plan and the purchase of our new premises. This we did last May and with renovations complete, the staff moved in in October. I am very glad to say that we did it all within the budget set by Council.

Last year the Association became fully computerised. This has meant many teething problems, particularly in the audit. Last January in an effort to put the relevant information and balances into the computer quickly, extra staff were brought in by the software company. Unfortunately it has now become obvious that not all the work was as accurate as we would have liked. This has meant that certain carry forward items and other entries were placed in wrong nominal codes, in addition certain opening balance figures were entered in different forms as required by the accountants and it has therefore meant that it has been quite difficult to follow the trail through items in the computer. I must however emphasise that we had concurrent manual books running for all the bank transactions and these were accurate, I am glad to say, to the very penny. The accountants have assured us that the problems are now sorted...
out and that the balances and controls for the coming year are all correct. This has meant many extra hours of work for the Cheltenham staff. Committee Chairmen, Officers and the computer company. This accounts for much of the increased costs of the Association. Many of the problems have now been sorted out and we can look forward to a smoother year coming. However, it has been decided to have an independent look at the system after a year running the programmes to ensure it is right for us.

Efforts have been made for the relevant committee members to visit Cheltenham and to see the way the computer is running for each of their committees and if necessary we have changed the computer programs to suit. However it has been decided that an independent look at the system after a year of running the programs is essential. This appraisal has already started and is proving most helpful to both the staff and Officers alike.

With the computerisation, it has meant changes within the office itself. It was decided that we were overstaffed by two last year and thus redundancies were inevitable. The work structures were then changed within the office but I do not feel that any deterioration of the quality of the work which we have come to accept has occurred. We have taken on Mr Eaton as a full time Administration Officer since January 1 this year. Running a modern office is expensive and as we ask our professional staff to do more for the hardpressed volunteers of the Association, the costs will rise. However this, as in all aspects of the Association, is carefully budgeted and I intend to keep these costs within figures but to allow for a more efficient yet economic running of the Association.

During the last year, the number of members rose as well as our income raising £23,000 more than last year. To encourage new members we must continue to be seen to be good value for money. This will be done through the careful budgeting of all the Association's affairs and proper allocation of costs. I intend to increase full membership by £6.00 from January 1992 and other categories pro rata.

I would like to draw your attention to certain aspects in the accounts: If you turn to page 5, under publication of journal, the figure looks very small, this is in fact a corrected figure from the previous year as the accountants then over estimated the cost of producing the Journal and thus now we have a correct figure for 1990. The cost to produce the Journal was approximately £25,000 this year. The time has now come for the Association to put more money into our Journal and this has been budgeted for next year.

One of the main contributors to the Association in both esteem and financially is of course our Congress. You will see further down on page 5 that the surplus would appear to be down substantially last year. However one cannot equate directly the figures for 1989 and 1990. As I said before it is most important that costs are properly allocated, thus for the first time, the Cheltenham overheads attributable to Congress have been taken out, as on the bottom of page 8, thus giving the lower figure. This is much more realistic and is approximately 10 per cent surplus overall.

The other areas which generate funds for us are publications and continuing education.

The Publications Committee has continued to produce new and exciting books with reprints and new editions of old favourites allowing a healthy surplus each year and the committee is to be commended for this. I would like to point out that the figure on page 5 is in fact surplus, rather than income.

We have been leaders in continuing education and we intend to stay there. Changes in the VAT regulations affected the first half of the year but we recouped in the latter half to bring the expected surplus about. The type of courses and speakers are always being looked at to give our members the greatest chance to hear eminent home and foreign speakers, should it be centrally or regionally.

The publication of the European Journal which we contribute to has meant a substantial new expense to the Association this year as seen on page 8 in presentations.

The economic climate is changing: we cannot rely on sponsorship as a bottomless pit to support us. The Association must stay on a sound economic base with an efficient office, costs properly allocated to the various areas and above all we must seem and must be good value to all our members. We are in a competitive market whether for membership, publications or CE, we cannot be complacent.

The next three years will be for consolidation to weather the recession and build on the base set by owning our own property.

During the year, we had to change our stockbrokers due to the closure of our last ones. Quilter Goodison will be far more active with our portfolio and have already made changes which have been beneficial financially to the Association. Some of our stocks and shares are old and not working for us, so changes are required. These have been slower than anticipated due to the poor showing in the markets. Despite this the value of our shares have increased and a surplus was made on the sales to be reinvested.

Having changed our balance in the bank into a valuable property and making a goodly surplus despite the recession starting to bite, I am glad to report that the Association’s finances are in very good shape and set to make a surplus this coming year.

I would like to thank all those that have helped me to understand
the finances of the Association, that have borne my endless questions, my long conversations and the changes that have been initiated in the system, with particular thanks to Mr Eaton and to Mrs Gill the bookkeeper.

I propose that the accounts for the Association to December 31 1990 be adopted. Seconded by Mr Butcher and carried unanimously.

9 Appointment of auditors

Mrs Hill proposed that Hazelwoods Accountants, Cheltenham, be accepted as auditors. This was seconded by Mr Hilbery and carried unanimously.

10 Amendments to the constitution

Mr Price said, In the absence of Mr Michael Young, Chairman of the Constitution Subcommittee, I shall ask Mr Nind to talk the meeting through the amendments.

Mr Nind said, Thank you Mr President, I will do my best to guide you through what I’m afraid is not a short list. The Chairman of the Constitution Subcommittee has first of all pointed out that amendments are not changes and that he wishes to separate these two. Changes are rather more major alterations, amendments are minor bringing up to date.

The first items are amendments and for those of you who might have a copy of the constitution in front of you, the role of P&PR Committee has changed and was considered at the planning weekend last year. It was considered that the name should be changed to reflect it’s altered role in the modern Association and I would like to propose that the name of that Committee be altered to Public Relations Committee. Each of these items I should point out have been considered by the Constitution Subcommittee, by Advisory and Finance Committee, by Council and come to you with recommendation from all three of those bodies. Do you wish to take these amendments en bloc or item by item Mr President?

Mr Price said, If we can manage it on block, so be it.

Mr Nind said, item 2 relates to Veterinary Nursing Committee, and the proposal is that the name of that Committee should be changed to Members Services Committee.

Item 3 relates to clause 12 (e), where the investments of the Association, according to the constitution, should be undertaken by our bankers. For many years we have had our own stockbroker and the change which is proposed there is that all investments shall be undertaken through a firm of stockbrokers appointed through the Advisory and Finance Committee and held in a recognised nominee account. This item really just formalises an arrangement which has been in hand for very many years.

The last item under amendments relates to clause 12 (g) which is the section dealing with the Symposium Subcommittee Chairman. In the past this person has been appointed by Scientific Committee and the proposal is that as the symposia are primarily of an educational nature it makes more sense if this Chairman is appointed by Education Committee. And the proposal for clause 12 (g) is that it should be amended to read … ‘the Education Committee shall elect annually a Symposium Subcommittee Chairman who shall report to the Education Committee and, if required, be answerable to Advisory and Finance Committee’. It was felt that in some cases the sums of money involved in setting up these symposia are quite major and that Advisory and Finance Committee must have control.

Those are the four amendments Mr President, possibly I should pause there and ask for questions.

Mr Nind proposed that all four amendments as outlined should be adopted. Seconded by Mr J. S. M. Bower and carried unanimously.

11 Changes to the constitution

Mr Nind said that the changes are rather more major alterations to the constitution. There are two. The first relates to clause 16, which is the clause outlining all the details of the Special Study Groups (SSGs). These groups were set up many years ago to cater to the interests of people with narrower or specialist fields of interest within the Association. Since then many independent groups with specialist interests have in many ways overtaken the SSGs. Some of the SSGs have been moribund for years and it was felt that this aspect of the Association interest should be looked at again. An Affiliations Working Party was set up reporting to Education Committee and again this matter has been considered by Advisory and Finance, Council and the Constitution Subcommittee. The proposal is that the entire clause 16 relating to SSGs should be deleted and that SSGs will no longer exist. I would point out perhaps for clarification that we are not abandoning them completely; the proposal further on in the agenda is that Affiliated Group Status should be accorded to any of these bodies which still continues to function.

Mr Price said that he had been presented with a request to make this change and the next change, signed by 30 members. That’s the procedure for changes to the constitution. So are there any questions to the Hon. Sec. on that particular point?

Mr Lawton said, Is it not a bit unfair towards SSGs which are doing very well and thriving and going from strength to strength, to put them out by themselves and then to reaffiliate them may well end up being the final straw for them?
Mr Nind said, There are various strictures on SSGs at the moment, one of them for instance is that they are banned from undertaking any political activity and for some of them at sometime it might be in their interests to be able to undertake political activity. Under the Affiliated Group status they will in fact have a lot more support from the Registration Office. They will have a formal association with Education Committee which they do not have at the moment and the intention is that they will actually have more support and more encouragement than they have at the moment.

Mr Price said that they were actively involved in the early discussions.

Mr Nind proposed that item 16 in the constitution be deleted in its entirety. Seconded by Mr Rob Harper and carried unanimously.

Mr Nind said that the second change to the constitution relates to the other end of the constitution, item 3 (f). Possibly I can read it out for those of you who don't have a copy of constitution in front of you. This is the function of the Association, and item (f) is, 'To maintain a current record of research workers and their subjects and a list of members' professional interests and to advise members on current advances in small animal research'. This function has devolved mainly on to Scientific Committee in recent years and these lists of workers and their interests have been extremely expensive to maintain, has not provided anything of any use to the vast majority of members and it was the recommendation of Scientific Committee that this clause should be changed so that clause 3 (f) purely reads ... to advise members on current advances in small animal research.

Mr Nind proposed that item 3 (f) of the constitution should be changed to read, 'To advise members on current advances in small animal research'. Seconded by Mr M. P. C. Lawton and carried unanimously.

12 Affiliated groups

Mr Nind reported four groups had formally asked to become affiliated. They were: the British Veterinary Dental Association, the Neurology Special Study Group, the British Veterinary Dermatology Study Group, and the British Veterinary Orthopaedic Association.

Mr Nind formally proposed that those four organisations are afforded affiliated status.

Mr Lawton asked what had happened to the Ophthalmology SSG.

Mr Nind said that they had been fully involved, including the meeting at Kingsley House. The proposal was put to them that if they would like to ask to become an affiliated group I would bring their name to this meeting. They have not asked me to bring their name forward.

Mr Lawton said he had attended a meeting on the Thursday and they were still under the opinion that they were still a BSAVA SSG. Does that mean that as from this moment onwards we do not exist?

Mr Nind said, I am sure that you will continue to exist, but the term BSAVA SSG will no longer have a meaning. If there has been any misunderstanding on that item, then possibly someone has not been reading their paper-work. I am sure that if the group wish to apply to become affiliated at some future point then a subsequent annual general meeting will be only too pleased to consider that application.

Seconded by Mr J. E. F. Houlton and carried unanimously.

13 Election of Officers

The President informed the meeting that the following nominations had been received for the election of Officers for the next Association year.

President: Mr M. E. Herrtage
Senior Vice-President: Mr C. J. Price
President Elect: Professor N. T. Gorman
Junior Vice-President: Mr R. L. Butcher
Honorary Treasurer: Mrs L. V. Hill
Honorary Secretary: Mr H. S. Orr

In the absence of any other nominations Mr Dalton proposed that these nominations be accepted 'en bloc'. Seconded by Mr Wadsworth. Carried unanimously.

Mr Price said, You have just voted into office two new Officers for the coming Association year. Simon Orr is already well known to you as Chairman of Publications Committee where he has proved a sound leader and maintained the work ethic of that committee. Ray Butcher is equally well known to you as the guy who turned the Treasurer's slot at the AGM into a cabaret and accumulated the funds for the purchase of Kingsley House almost without anyone noticing. As is the Association's way this means that Fred and Tony must now step down to make way for them. I have already commented on Fred's input to the Association. Tony Bradley's input, has been quite remarkable since he joined the BSAVA in 1963. It's been outstanding and probably unique, rising through Secretary and Chairman of the North West Region, he was a member of Congress Committee for three years followed by P&PR committee for nine years, during which time he was Secretary, then Chairman of that committee as well as Editor of BSAVA News. He progressed from P&PR Committee to become the Association's Treasurer for three years before becoming a Presidential
Officer. He has sat on every Standing Committee in the Association, as well as, of course, Advisory Committee and Council. It’s impossible to imagine a more comprehensive record of dedicated service to the Association and its a pleasure to thank him on the Association’s behalf.

14 Ratification of the name of the Editor of the Journal of Small Animal Practice

The appointment by the Officers of Dr W. D. Tavernor as Editor of the Journal of Small Animal Practice, which had been approved by Council, was ratified by the AGM.

15 Election of representatives on BVA Council

The following recommendations for representatives on BVA Council had been made by BSAVA Council:

Mr M. E. Herrtage
Mr A. D. R. Hilbery
alternates:
Professor N. T. Gorman
Mr C. J. Price

The appointments would run from September 1991 to September 1992. Proposed by Mr Thompson, seconded by Mr Bower. Carried unanimously.

16 Any other business

Mr Price invited the Honorary Secretary to propose the three Trustees of the Association.

Mr Nind said, According to the constitution we have no more than four Trustees, traditionally there have been three Trustees of the Association. This is a legal requirement now that we own property that the names of these three shall be in the title to the property. Traditionally the three have been the current Treasurer, current President and the current most senior Past President. For some reason I have received a letter of resignation from Mr C. J. Price as a Trustee with effect from today’s date and I would like to propose that the three Trustees for the next 12 months should be Mr M. E. Herrtage, Mrs L. V. Hill and Mr B. Singleton. Seconded by Mr Hilbery. Carried unanimously.

Mr Hilbery said, Just one small matter – really a matter of information. I think perhaps I should have raised it under the Secretary’s report. May I refer you to the notes of the Veterinary Nursing Committee now the Members Services Committee, paragraph 2, the National Council for Vocational Qualifications (NCVQ). I think there is some concern over this and I think perhaps our new Honorary Associate member might be able to help on this. Does this mean that eventually the qualifications of veterinary nurses will come out with the control of the RCVS because as I understand it it might very well do so?

Mr Clare said, I will try and enlighten the membership on this. It is indeed a difficult subject and the political spectrum appears to change on a weekly basis, but Mr Hilbery is indeed correct that there is some risk that we could lose some control of the Veterinary Nursing Scheme with the RCVS if things progress in their current manor and indeed there is going to be a meeting I believe next week of important Officers from the RCVS, from Veterinary Nursing Committee and the NCVQ themselves to determine exactly what the best plan will be. I am not privy to the deliberations of these people at this moment in time but all I can say is that I will keep the membership informed. Already there are alternative schemes of animal technician training being prepared at this time which will seem to be on a competitive basis with the VN Scheme but in this case with the full backing of Government and the full funding of Government and with proposed tax relief for employers to employ such trainees in terms of animal care technicians. But sadly the content and the aspirations are nowhere near the quality of the veterinary nurses. It is of great concern to us. All we can do is monitor the situation and we are putting in our advice as and when we can, and hope it is taken notice of.

Mr J. Henwood said, Mr President, Officers and members I wish to raise the subject of value added tax on veterinary services and medicines in the UK. I am sure you will all realise that farmers, who incidentally have a strong Parliamentary lobby, are zero rated and so can reclaim all their input tax and obviously the tax which is imposed by large animal practices. The full burden of the tax falls on small animal practices and their clients, adding a further 17.5 per cent to the bill and it is the total bill which concerns our clients. Many of the companion animals that we treat are the only other living creature in that home besides the owner. They are an essential and greatly loved member of the family and by no stretch of the imagination can they keep being considered a luxury. I contend that the main reason that our services are so unfairly subject to the tax is that we have failed to oppose it. At my request, zero rating of VAT was discussed by the BVA Salaries and Appointments Committee. Afterwards I was informed that, and I quote, although information on the level of VAT in all the European states has not been extracted, first hand information was available on the situation in Italy, where veterinary surgeons are exempt from VAT? The disadvantages of being exempt were then listed. It was then stated that pressure to achieve zero rating of VAT in this country for veterinary surgeons may result in exemption status.
being suggested as a further step. The committee, although not wanting to see the VAT raised above 15 per cent, felt that the disadvantages of zero rating to the general practitioner prevented them from supporting your aim. What the committee should have known before discussing my request is the full detail of all member states. For instance, in five states, Belgium, Italy, Netherlands, Portugal and Greece, their services are totally exempt from VAT, on their medicines the respective rates are 6, 9, 6, 0 and 6. In fact there is a tremendous variation between the VAT on services and medicines. I am advised from Brussels that in January 1992 all exemptions will cease and that exemption will no longer be an option, it will be up to each individual state to impose a rate of their own choice. It seems very likely that the rate on their services will be zero, the 17.5 per cent charged on both our services and our medicines is the third highest in Europe. The highest being Denmark with 22 per cent. Mr President Elect, there is an overwhelming case for the rates on our services and medicines to be changed to zero. You know from your experience with the Cambridge and Glasgow veterinary schools that public campaigns can work. A combined BSAVA/BVA poster in every waiting room, inviting clients to sign a petition and write to their MP would be a good start. It would show the public that we do care about costs and they would be 100 per cent behind us. I would like to ask the Officers of the BSAVA to investigate fully the feasibility of having our VAT zero rated and if favourable they launch a public campaign either in conjunction with the BVA or if necessary on our own.

Mr Price said, John thank you very much, that raises many points. It is clearly vital that the profession as a whole speaks together and I am sure the new President will have it top of the agenda for the next Political Committee. We would then carry the matter forward to the BVA and speak together.

Mrs H. Charlwood said, Mr President I would just like to ask and to inquire of the meeting whether it's the general view as I believe that dogs, in particular greyhounds, should be covered by the same RCVS strictures on firing as horses are.

Mr Price said he was intrigued by Mrs Charlwood's question and asked for any responses from the meeting. This question would be taken to Scientific Committee which would be the correct channel.

There were no responses from the meeting and Mr Price asked Mrs Charlwood to elaborate and tell him what she would like taken forward to Scientific Committee.

Mrs Charlwood said that as someone who works quite a lot with racing greyhounds I would like firing to be banned in dogs. I think the British public perhaps are not aware that it does go on in dogs as well as horses. I think it is high time that it was banned, but I think it's for BSAVA perhaps to give their support. The Society of Greyhound Vets is a largely defunct organisation and won't produce any outcome whatsoever, but I think BSAVA should be doing something for the welfare of these animals.

Mr Price said that he was very grateful to Mrs Charlwood for bringing the matter to the meeting's attention, and would certainly pass it on to Scientific Committee. Is there anyone who would like to speak on that?

Mr Lawton said, Being just down the road from a practitioner who regularly fires greyhounds, and seeing some of these results occasionally I fully support Hazel and say that it was a major loophole that dogs were not included under the same RCVS ruling on firing of horses.

Mr Harper said, It's just a minor point, but I notice we're having no opportunity at this meeting for fence sitting, in the sense there are no abstentions called for, is there any reason for this and does it invalidate any of the votes we have already taken?

Mr Price said, As all proposals had been carried unanimously, there had been no need to call for abstentions.

17 Induction of the new President

Ladies and Gentlemen, last night, before a much larger audience, I paid tribute to the help and support I have received throughout my year of office from my partners and from my family. Today I would like to extend my thanks to the Officers of the Association.

During my years as an Officer, the team has obviously changed each year but I have been very fortunate that in all three years there has been a remarkable esprit de corps and a clear sense of working together for the common good; never has this been so much more so than in the year which is just coming to a close. I cannot begin to tell you how much I've appreciated the support that's been given to me during my year in office. During this time Michael Herrtage has always been available to help me chew over difficult decisions and the fax line between Cambridge and North Marston has been so well used that my machine burnt out under the strain six weeks ago.

Michael will be our first President from academia for quite a few years, too many some would say, and the qualities required to succeed, as he undoubtedly has, in that tough world will be of enormous benefit to the Association. He has much to give and we have much to take from him.

It is with great pride and pleasure that I formally hand over the reins of power to him.

Mr Price then handed over the presidential Chain of Office to Mr M. E. Herrtage who gave the following address.

Mr Senior Vice-President, fellow
Officers, Past Presidents, members and guests of the Association, it is my first and very pleasant duty as your newly elected President, to pay tribute to Colin's outstanding year as President. He has worked extremely hard for the Association during the year. His quiet and charming manner backed by his sheer determination has enabled him to achieve the majority of the goals he set himself at the planning weekend just before his term of office. He has certainly brought the BSAVA into the '90s. He introduced new technology that you have heard about, to improve the speed and decision making within the Association but more importantly than that, he always demanded clearly defined and well presented arguments in order that we could make the right decision at the right time. In addition, he refused to become diverted by peripheral issues and channelled maximum effort into the important issues such as practice standards, discount neutering schemes and the successful development of the joint Kennel Club/BSAVA Scientific Committee just to mention a few. Colin was the first Cambridge veterinary graduate to take office as President and he has certainly done the job very well indeed. Colin and Valerie can look back at their hard work and achievements with deep satisfaction. Colin, it is a very great pleasure for me on behalf of the Association to present this as a small token of our appreciation for your service to the Association and particularly during your year as President.

The President then presented Mr Price with a painting by Lawrie Williamson.

Well time is getting on and this must be about the longest AGM I can remember and it is with a little trepidation and a great deal of excitement and enthusiasm that I accept this great honour. Although I must say when I arrived at Congress I did wonder for a time whether I was going to take on the Presidency when I saw Neil Gorman in the President-Elect name badge that he's wearing at the moment; but that's a minor problem that we have sorted out. Following Colin is certainly not going to be easy, but I will do everything in my power to uphold the traditions laid down by the previous 33 holders of this office.

It is sad, as Colin has already mentioned, that we shall be losing Tony and Fred from the Officer team. Tony has brought unique skills from industry to the Association. He has been a wise counsellor and his tremendous knowledge of the Association will be a great loss. To lose Fred's energy, enthusiasm and commitment to the Association, not to mention his very detailed knowledge of the constitution, might appear to be a large blow at the start of one's year of office but I have every confidence Ray and Simon, along with the other Officers, will provide me with great support during my tenure of this office.

My Presidential year will have several goals but no single theme. We need a period of consolidation now that we have purchased Kingsley House. During this time I would want to strengthen the Association's infrastructure to make it a more efficient machine capable of expanding further as the future demands require.

The aims and objectives of the Association have always been to foster and promote the interests of all veterinarians concerned with small animal practice, teaching and research. During my year in office we shall aim to improve communications between central BSAVA and the membership in the regions. We shall widen the appeal of the already successful CE programme by incorporating overseas speakers. We shall continue to develop our list of publications and make further improvements to the Journal of Small Animal Practice. About next year's Congress, I can only hope that we can make it as successful as this year. All these activities should help BSAVA's position be maintained at the forefront in all small animal matters. We shall also play a greater role in Europe, helping to encourage further harmonisation of the European Small Animal Associations and to influence the direction of European specialisation.

I greatly appreciate the tremendous support from colleagues and friends not only in the Association but also those at Cambridge and those in industry who have helped me along my path. The support and encouragement from my family will enable me to approach the tasks involved with determination and enthusiasm.

Ladies and gentlemen, please enjoy the remainder of this Congress. Have a safe journey home and I hope to see you here next year.

18 Date, time and venue of the next annual general meeting

The next annual general meeting of the BSAVA will be held at 12 noon on Sunday, April 5, 1992, at the International Convention Centre, Birmingham.
BOOK REVIEWS

Feline medicine

Consultations in Feline Internal Medicine
J. R. August. 610 pages, hardback, £47.00. London, W. B. Saunders. 1991.

IT has given me great pleasure to review this book as it provides a very readable and informative text on many aspects of feline medicine. The format has been subdivided into sections, with individual editors for each section, and with contributions on each topic from several recognised experts. The overall approach is one of ‘problemsolving’, which makes the information readily accessible for the veterinary surgeon in practice.

John August has identified areas of specific interest in the cat – a delight for those readers who normally have to wade through a plethora of canine information before alighting on an afterthought relevant to the feline – and expanded upon these in an illuminating and challenging manner.

The initial section of the book provides a good introduction into the physiology and psychology of the cat – vital for the feline enthusiast – and discusses problems such as mortality of kittens in cattery situations and pyrexia of unknown origin. The use of enteral supplementation for anorexic cats, a technique often underused in the management of such cases, is also covered in a practical way.

The dermatology section is thorough and very readable. The text is orientated to the US market and so there is a relative overemphasis on the mycoses and mycobacteria. However, this may help draw the attention of the UK practitioner to an agent such as cryptococcus as a rare differential diagnosis in the odd case. Chapters on paw and pad disorders, dermatophytosis, cheyletiellosis, atopy, mast cell tumours, eosinophilic granuloma ‘confusion’, and genetic defects are comprehensive and well presented. The topic of food hypersensitivity in the cat often causes debate. In this text a three day fast is suggested as a means of ‘test diet’ – many dermatologists would prefer a six to eight week trial period with an elimination diet. The debate continues!

The section on cardiac and respiratory disorders is very useful. The chapter on the interaction with systemic disease provides plenty of ‘food for thought’ diagnostically. Coughing cats, sneezing cats, and cardiac abnormalities in kittens and adults, are all dealt with extremely well. Endocrine and metabolic disorders are tackled in a very practical way, for instance, in detailing the management of post thyroidectomy hypocal-
from the lack of colour plates. John August says that he aims to produce a new edition of this book every three years, and to introduce and expand on certain areas each time – for example, oncology. If they are all up to this standard they will be eagerly awaited.

As far as this edition goes, if you have an interest in feline medicine, I would recommend you to buy it – or put it on your Christmas list?!

H. A. O’DAIR

Diagnostic ultrasonography

Diagnostic Ultrasound in the Dog and Cat
F. Barr. Published by Blackwell Scientific, Oxford. Price £27.50. Paperback. 193 pages. 1990

THIS is the book we have all been waiting for! The use of real time grey scale B-mode diagnostic ultrasonography has been mushrooming in veterinary practice and the results of the technology have been in danger of misinterpretation by users who are not fully conversant with the methodology of ultrasound imaging. Thus there exists a need for a primer on the use of diagnostic ultrasound in examining our domestic animals.

The publication is in softback form, reasonably priced and written for practitioners as well as researchers. The approach is realistic, starting with basic principles of ultrasound and then covering the organs and structures which can be successfully imaged in the various body cavities and other regions. The format is a comprehensive text illustrated with ultrasound scan images matched with black and white line drawings of the scan fields.

The chapter on principles of diagnostic ultrasound is not as daunting as it sounds as the elementary physics and production of the scan images are dealt with in a clear but agreeably simple fashion so that the reader does not feel inhibited in getting to grips with the technology. The descriptions of the type and range of equipment available for use is excellent information for the new entrant into the ultrasound stakes and I found the section on image interpretation and common artefacts to be sufficiently extensive to give a good grounding for the aspirant imager. Much disinformation can be generated by a failure to appreciate the inherent artefactual illusions which are part of ultrasonographic imaging.

The first organs to be dealt with are those of liver and spleen, building on images of the normal to methodically explore the scope of the technology to investigate pathological changes and conditions. This section is extensive with illustrative coverage of the conditions discussed. Each chapter concludes with a useful list of advised further reading. The urinary tract is considered in the succeeding chapter in a similar

manner and again the information presented is impressive. Imaging of the reproductive tract is the next section to be presented but here the breadth of information imparted is perhaps not quite as wide as in the previous chapters.

There are areas of description in the text which are not illustrated by ultrasonographs but the coverage is sufficient to introduce the reader to the use of this type of imaging in reproductive problems. The relative lack of imaging detail is not so much the fault of the author but is due more to the fact that the scope of this area of scanning in the veterinary field has still a considerable way to go as it is dependent on the quality of the ultrasound scanning equipment realistically available to the veterinary ultrasonographer.

The following chapter on imaging other abdominal structures is a round-up of information on a number of organs and pathological conditions encompassing adrenals, pancreas and gastrointestinal tract.

Chapter 6 enters a different field of ultrasound scanning, namely echocardiology and imaging of the heart. This is a whole new ball game involving dynamic structures with a more critical evaluation of dimensions and range of movement, presenting a more difficult task in explaining images of mobile structures using only the written word and fixed printed images. I found the approach in this section a well planned attempt to advise on interpretation of the planes of scanning of the internal architecture of the heart. I doubt if a word picture can ever be sufficient to explain this dynamic subject but certainly the text produced in the book would enable the potential echocardiologist to attempt to get to grips with the technique. After scanning for a while in an exploratory fashion, the text and illustrations will become clearer to the reader. The chapter is extensive and gives wide coverage of the common cardiac anomalies encountered in the smaller species. The use of M-mode is dealt with where it is relevant for assisting in diagnosis of pathological conditions but there is no attempt to illustrate the use of Doppler techniques for further diagnosis of cardiovascular lesions.

The limited remaining applications for scanning in the thoracic cavity are described in the succeeding chapter involving intrathoracic masses and lesions of the diaphragm.

The section on the use of ultrasonography as it applies to the eye and its immediate surroundings will be of interest to the clinician who is exploring methods of expanding the range of use of the equipment into other areas as will be the following chapter on imaging other superficial soft tissue structures. Imaging such structures requires a high frequency transducer and imaging quality of a high standard to give reasonable diagnostic ability but with ever advancing
standards in scanner technology, these areas will become of increasing importance in the veterinary field. The final chapter on biopsy techniques is innovative and gives an excellent insight into what will become a routine clinical investigatory procedure of the future.

The text of the book is written in a clear and understandable manner and the style makes it most readable. Meticulous is a word which occurs regularly in the text and is the word which could be used to describe the care and attention which has gone into the production of this book. Whereas the written word is of high quality unfortunately the illustrations on occasions do not do justice to the text. Reproduction of ultrasound scan images present a challenge to the illustrator and the originals have to be of the highest quality. In a number of cases the quality has slipped but one can sympathise with the author as, due to the relatively low volume of veterinary cases scanned, it is necessary to compromise by using images of lesser quality rather than fail to produce any illustration at all. The accompanying line drawings are helpful in interpretation of the scan images but I feel that a more topographical approach could have benefited the reader. An outline of the entire animal with a reference box to the scan area might have helped the less experienced to orientate and the use of either photographs or outline drawings of entire organs or topographical areas could offer additional reassurance in interpretation. I felt that this would have been of particular value in the section dealing with echocardiology where it was difficult to relate the exact details of the small scan area to the overall structure of the heart.

I said it was the book we have been waiting for and I think it has been worth the wait. The book is a must for anybody contemplating using real time diagnostic ultrasound in small animals and will become a standard text among veterinary ultrasonographers. I can envisage the occasion when, on viewing an ultrasound scan image, the deriding cynic starts talking of the similarity to a view from an aircraft window on a bad night landing at Glasgow airport, the hand will reach for that book by Barr to prove a point.

J. BOYD

ABSTRACTS

A syndrome resembling feline dysautonomia (Key-Gaskell syndrome) in a dog

A ONE-year-old spayed labrador retriever had a three week history of intermittent lethargy and diarrhoea. Clinical findings included urinary and faecal incontinence, loss of anal sphincter tone, bilateral membrana nictitans protrusion, markedly dilated pupils, bilateral keratitis sicca, dry mucous membranes and a crusty nose. The direct and indirect pupillary light responses were poor. Cervical hyperaesthesia was present. Autonomic nervous system function was found to be abnormal on the basis of response to atropine; intradermal histamine and gastric motility studies. Treatment with metoclopramide hydrochloride and bethanechol chloride resulted in improvement in attitude and appetite, an improved Schirma tear test and less frequent vomiting within 24 hours. Bladder function and anal tone improved over a three week period. However, although improving, euthanasia was performed after one month at the owner’s request. No post mortem examination was performed.

WISE, L. A. & LAPIN, M. R. (1991) Journal of the American Veterinary Medical Association 199, 2103-2106

Demographic data and treatment of small companion animals with lead poisoning: 347 cases (1977 to 1986)

THREE hundred animals were successfully treated with calcium EDTA; 16 died and 10 were euthanased. Of the 25 dogs treated with penicillamine, those with blood lead levels greater than 100 µg/dl usually required two courses of treatment. Twenty-one animals were not treated. Paint was incriminated as the source of lead in 29 per cent of cases. Other sources included linoleum, plumbing solder and window calking. In five birds the source of lead was tile grout, stained glass and a chess set. Gastrointestinal metallic foreign bodies were removed from two birds and six dogs. Most animals with particular radio-opaque material in the gastrointestinal tract were given cathartics or enemas before chelation began. Birds were most likely to die from lead poisoning. Most animals came from the greater Boston area; 74 per cent of cases coming from four specific neighbourhoods. There was a positive correlation between the presence of lead in animals and the number of people living in poverty.

MORGAN, R. V., PEARCE, L. K., MOORE, F. M. & ROSSI, T. (1991) Journal of the American Veterinary Medical Association 199, 98-102
Health and safety at work

Ionising radiation safety

A HEALTH and safety questionnaire carried out among veterinary nurses revealed that 25 per cent of practices allowed assistants' hands to be directly in the beam while X-rays were being taken, without even gloves in some cases, while 33 per cent of practices routinely have animals held manually for radiography. This is despite regulations introduced six years ago which should have eliminated these serious safety hazards. This article sets out briefly what these regulations say.

THE principles of radiological protection are incorporated in the Ionising Radiations Regulations 1985, and under these it is the responsibility of the employer to comply with these regulations. Protection follows three basic principles:

- Radiographs should only be taken where there is a definite clinical justification.
- Any exposure of personnel should be kept to a minimum.
- No dose limit should be exceeded.

The first principle is obviously one of clinical judgement, but the other two can be controlled by a combination of physical factors and organisational arrangements.

Main requirements and precautions

1. Form F2522 – veterinary use of ionising radiations requires prior notification to the Health and Safety Executive (HSE) on form F2522 which is available from any HSE area office.

2. Restrict exposure – All necessary steps should be taken to restrict so far as reasonably practicable the extent to which employees and other persons are exposed to ionising radiations.

3. Radiation Protection Supervisor – Each practice should appoint a Radiation Protection Supervisor (RPS) who would have the responsibility of ensuring that work with X-rays is carried out in accordance with the requirements of the regulations and that local rules are observed. The RPS should preferably be a partner or senior member of staff who should know and understand the relevant requirements of the regulations.

4. Radiation Protection Adviser – In addition to the RPS, most practices will need to appoint a Radiation Protection Adviser (RPA) to advise them on the use of the X-rays and observance of the regulations. An RPA is always required where a controlled area, which people will enter, has been designated, ie, if animals are ever manually restrained (including horses).

The RPA should have the qualifications, experience and qualities described in the Approved Code. The British Veterinary Association, or the British Veterinary Radiological Association, care of the Royal College of Veterinary Surgeons will be able to advise on suitable persons.

The HSE should be notified in writing of the intended appointment of a RPA.

5. Controlled area – In a typical practice, everywhere within a

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Editor: Simon Wolfensohn
Archway Veterinary Surgery, 21 High Street, Highworth, Wiltshire SN6 7AG.
2 m radius of a vertical beam axis will be a controlled area. Persons should avoid entering a controlled area, but when this is necessary they may do so only under specific conditions which are laid down by the PRA. It is usually more convenient to designate the whole room as the controlled area.

(6) Written systems of work – Persons may only enter this controlled area under a written system of work. This should be prepared in consultation with the RPA. The basic requirements are:

- A copy of the written system should be displayed in each X-ray room and given to anyone involved in radiography.

- It should indicate the estimated personal doses which may be expected. In practice this should be less than 10 mSv per year.

- The X-ray set should be isolated from the electricity supply after each radiographic session.

- The above points relate specifically to entry to the controlled area.

- The written system should be reviewed at least annually.

(7) Local rules These should be a set of simple and readily understood rules of procedures to be followed during X-ray examinations. The written system of work should form part of these more general local rules. Again, the advice of the RPA should be sought in their production.

(8) Training – Adequate information, instruction, and training should be given to employees who are to be involved in radiography, to make them aware of radiation protection, and radiographic techniques to be used.

(9) Women and persons aged under 18 – Under a written system of work, where the limit is set at 10 mSv, no one should receive doses in excess of the relevant dose limits. The additional dose limits which apply to women of reproductive capacity and to pregnant women will automatically be met in this situation.

(10) Dose assessment – Persons regularly involved in radiography under a written system of work should be provided with personal dosimeters.

- Normally, monthly monitoring is used but in veterinary practice three-monthly monitoring may well be sufficient. The RPA will advise if this is so in your case.

- Records should be maintained for at least two years.

- Dosemeters should normally be worn on the trunk and should not be repositioned when protective clothing is worn. They should not be left in the X-ray room when not being worn.

(11) Monitoring radiation levels – In addition to personal dose assessment, arrangements should be made to consult with the RPA to monitor radiation levels in the X-ray room and in adjacent rooms to ensure that shielding of walls, doors and windows is adequate.

(12) Incidents and contingency plan – Assessments should be made of the potential for incidents likely to cause risk eg, timer failure. Always ensure that the exposure indicator is checked after taking a radiograph.

- Discuss any incident which may have given rise to significant personal exposure, with the RPA.

(13) Purchase and sale of equipment – Manufacturers and suppliers of X-ray sets have a responsibility to ensure that equipment does not emit unnecessary radiation. The practice should obtain a report of the examination by the installer before bringing it into use.

- Provision of a light beam diaphragm should be considered an essential feature of any new or second hand equipment installed and must be used if animals ever have to be manually restrained.

- X-ray machines must be serviced at least annually.

## Premises and equipment

### Premises

**Points to note are:**

- A room which does not constitute a thoroughfare should be provided for X-ray purposes. It should be of sufficient size that everyone can be at least 2 m from the beam axis during exposure.

- Shielding afforded by walls which are subjected to scattered radiation should be at least single brick thickness, and walls subjected to useful beam eg, horizontal exposures, should be at least double brick or equivalent.

- Remember occupied areas above and below the X-ray room.

- Unshielded doors, walls and windows may be acceptable in a room used for vertical beam work, with a low workload, provided the RPA confirms this.

## Tattoo deadline extended

THE deadline for the tattooing requirement of specially controlled dogs has been extended until February 29, 1992. The deadline for neutering, implanting and third party insurance has NOT been altered and remain as November 30, 1991.

This means that those owners who have not yet returned their application forms to the Wood Green Animal Shelters Index of Exempted Dogs should do so now provided they have complied with the neutering, implanting and third party insurance elements.

For further information contact: Isobel Grant, Wood Green Animal Shelters, Chishill Road, Heydon, Royston, Herts. SG8 8PN, telephone 0763 838329.
Warnings

For equipment permanently installed in an X-ray room, at each entrance to the X-ray room there should be a warning sign incorporating the radiation warning symbol and an automatic warning signal, usually a red light, indicating when the tube is emitting X-rays.

For portable or mobile equipment used elsewhere, the warning can take the form of a sign incorporating the radiation symbol and a legend ‘Radiography in progress – Do not enter’, or similar.

Equipment

There are specific parameters laid down for X-ray machines, of which the main features relate to main beam measurements, timer accuracy, leakage radiation, and beam filtration.

Points to note are:
- Interchangeable cones should not be used if animals ever have to be manually restrained.
- Electronic timers should replace clockwork ones as soon as possible.
- Unless a purpose built X-ray table is used a 1 mm thick sheet of lead should be used on the table under the film.

The fastest film and intensifying screen combination compatible with good radiography should be used.

The processing solutions should be maintained at the proper temperature and changed with the frequency recommended by the manufacturer, as persistent underdevelopment leads to compensatory overexposure. Optimal radiographic technique is needed to avoid the need for repeat exposures.

Protective clothing

Body aprons, gloves and sheets of lead rubber suitable for hand and forearm drapes should be available for all persons likely to be in the controlled area during radiography. These are only intended for protection against scatter radiation. Gloves of 0.35 mm lead equivalence are strongly recommended. No protective clothing provides adequate shielding against the useful beam.

Protective clothing should be stored on hangers or bars and should never be folded. Protective clothing should be replaced if cracks appear.

Procedures for radiography

Among the general guidance notes are the following:
- Only essential persons should remain in the room during the examination.
- The useful beam should be the minimum size needed and in no case should extend beyond the limits of the film.
- Grids should not be used for parts less than 100 mm thick.
- Beware horizontal beams.

Animal restraint

No animal should be held unless there is a good clinical reason why it cannot be kept still by other means, and manual restraint should not be permitted unless a light beam diaphragm is operating.

No part of the holder’s person, even if covered by protective clothing, should be within the area of the beam.

When manual restraint is unavoidable, the veterinary surgeon requesting the X-ray, or another trained member of staff, must hold the animal.

Further details of the regulations can be found in the ‘Guidance notes for the protection of persons against ionising radiations arising from veterinary use’, available from branches of Her Majesty’s Stationery Office, or from the National Radiological Protection Board, price £4.00. ISBN 0 85951 300 9.

Members Services Committee

‘Clean up after your dog’

THE National Canine Defence League has produced two new cartoons to encourage dog owners to clean up after their pets. Posters are available to dog clubs and veterinary surgeries from the NCDL, 1 Pratt Mews, London NW1 0AD, telephone (071) 388 0137
I think I must be one of the very few people in the British Isles who has never been to Spain and it was with a considerable degree of excitement that I booked the daily flight to Valencia from Heathrow. Manchester apparently does not realise the merits of flying to the attractive orange growing town on the east coast of the Iberian Peninsula! The ‘overseas stand’ packs into two 4ft by 3ft boxes, and with these precariously perched on an airport trolley we bulldozed our way through a crowded travel lounge to meet the Herrtages and Andrew Edney. The flight was uneventful and as the weather got better with each passing minute, it was easy to see from a height of 30,000 feet why CAP means so much to the French farmers, and that most of the inhabitants of Spain are concentrated in a narrow coastal strip.

It was the day of the Festival of the dead when we arrived and the taxi driver helpfully informed me that everybody would be down at the local cemeteries with their ancestors! A consequently swift (and safe) drive through the city brought us to the congress hotel conveniently situated close to the Palau de la Musica, the site of the Spanish small animal veterinary association’s (AVEPA [Asociacion Veterinaria Española de Especialista en Pequeños Animales]) congress. These are on the fringe of the old city overlooking a dried river bed (are there any other sort in Spain?) which had been transformed into a park, much frequented by the locals during their evening perambulations. For the ornithologists there were resident black redstarts, cirl buntings and cattle egrets to add to the local colour.

Scientific programme

The congress was well organised with three simultaneous lecture sessions taking place within the ‘crystal building’ which also, as its name would suggest, featured regular live music concerts during the period that we were there. An interesting point during congress was the availability of simultaneous translation, not as I assumed with my parochial Englishness, to assist foreigners, but to translate the foreign speakers into Spanish! It’s certainly worth noting that many European congresses feature programmes involving English speaking lecturers and a few days in a warm clime (with a spot of learning thrown in) could be just the tonic that you need on a grim November day in the UK.

The commercial exhibition was smaller than BSAVA with only 24 stands, although the major BSAVA exhibitors were represented via their Spanish agencies. The Spaniards were charming and did everything they possibly could to help make our stay as enjoyable as possible. Coffee and croissants were provided free of charge each morning by the same company which sponsored the drinks throughout the day. These included the most delightful fresh orange juice from locally grown oranges.

BSAVA stand

There was a great deal of interest in our continuing education courses which are voted excellent value as were, not surprisingly, the BSAVA manuals which even in a foreign language were rated as a ‘good buy’. AVEPA members do attend our congress each year and with frontiers ‘coming down’ it’s to be hoped that this trend will increase.

There was one main evening function, the annual dinner, on the Saturday night, which was a very different ‘do’ from our President’s evening. Very low key and high spirited, there wasn’t a black tie in sight and the AVEPA membership set about the celebration with gusto, dancing their way through the night to the strains of ‘Viva Espana!’
evenings are very different in Spain; the reception commenced at 9.30 pm and we sat down to eat an hour later.

Things were a little quieter on the Sunday morning (as you would expect) though this was enhanced by the fact that the whole of the ruling AVEPA junta had resigned. This interesting Latin phenomenon had been brought about because they did not feel they were getting the full support of the membership in their opposition to a local company setting up veterinary surgeries, who were then in direct competition with the local veterinary practices. A problem which could never happen in England!

I unfortunately did not see any local practices but the staggering fact is that Spain is training vast numbers of veterinary students. The population is about 40 million and there are nine veterinary schools with 13,000 students currently in training. This contrasts directly with the state of affairs in 1963/64 when there were only 506 students at college. Can it be any wonder that not all veterinary surgeons are in employment?

Having said that, AVEPA was a delightful experience, the company was excellent, the natives were extremely friendly, English was spoken and the temperature was between 70 and 80°F. Why not make a note to broaden your horizons and lengthen the summer next year when the congress will be in Barcelona?

DAVID F. WADSWORTH

**BVNA Congress**

**Nursing the American Way**

VETERINARY nurses in the USA are referred to by one of several terms according to the state: animal health technicians/registered veterinary technicians/certified veterinary technicians. Speaking on 'Nursing in the USA' at the recent British Veterinary Nursing Congress, John Gibson, himself a certified veterinary technician from Gainesville, Florida, explained that the majority of veterinary nurses in the USA undergo a two year course at one of 36 colleges, before sitting the certification/registration examinations.

**Varied courses**

Telephone etiquette and dealing with ‘crisis’ situations were two of the subjects taught on the nursing course but emphasis varied according to the location of the training school. Those students attending mid-west area schools concentrated on large animal disease and procedures, whereas the far-west such as Arizona and California where the hot climate was conducive to keeping exotic pets, the students received extensive training in the handling of those species. As a result, students could select a school according to their interest.

Mr John Gibson explains the role of the veterinary nurse in the USA

Opportunities were also available for lay staff. If they had worked in a veterinary hospital for over five years they became eligible for sitting the certification/registration examinations, Mr Gibson explained, but for such students the pass rate was only 25 per cent compared with the 85 per cent achieved by school-trained technicians.

**Responsibilities**

Veterinary technicians could, once certified/registered, legally perform all duties and aspects of clinical procedures except for the opening of a body cavity with surgery and the writing of prescriptions. These were only allowed ‘under veterinary supervision’ Mr Gibson pointed out. Certified technicians would generally be regarded as the practice radiologist and pharmacist within a veterinary hospital. Following a change in legislation 12 years ago, duties could include the induction and monitoring of anaesthesia throughout all surgical procedures. The technician could also, Mr Gibson said, provide client education on matters such as vaccinations, dietary considerations and exercise. They provided a useful link between the hospital...
and public by visiting local schools on career option days and ‘pet awareness days’.

Career options for technicians had changed dramatically over the past few years, Mr Gibson said. This was attributed to two reasons. First, practice management had converted practices to schools on career option days the past few years, Mr Gibson had changed dramatically over business entities, he explained, most suited to their needs. The technicians provided a vital role in client contact and often made the best hospital managers. Second, a four year veterinary technology degree was instituted two years ago which comprised a two year general technicians course followed by two years of specialised training in either anaesthesiology, radiology, general laboratory procedures or histopathology. Technicians holding such a degree were then entitled to enter a university and teach their specialist practical skills to veterinary students.

The history of dog legislation in Britain

BRITAIN has a tradition of being a nation of animal lovers, and indeed was one of the first countries to introduce a law to protect animals used in scientific experiments. The Cruelty to Animals Act 1876 has been widely used as a model for such legislation, and remained in force for 110 years, until 1986 when it was replaced by the Animals (Scientific Procedures) Act. The only earlier piece of animal control legislation in this country was the Town Police Clauses Act 1847, which made it an offence to allow a dog to attack or threaten to attack any person or animal.

Animal legislation can be roughly divided into three categories; those laws which are intended to protect the creatures from abuse, those which aim to protect the public from the nuisance of stray and irresponsibly owned beasts, and those for the control of notifiable diseases, particularly rabies.

In the first half of this century several Acts of Parliament laid the groundwork for the controls over dogs that we now take for granted. The police became required to seize, detain and dispose of strays (Dogs Act 1906) and magistrates were empowered to order the destruction or control of dangerous dogs (Dogs Act 1871). The Control of Dogs Order 1930 required that dogs wear identity discs in public places, a neglected provision which local authorities will soon be obliged to enforce under the new Environmental Health Act 1991.

Further Acts

Over a similar time period, further Acts also controlled the use and abuse of animals. The Protection of Animals Act 1911 made it an offence to cause unnecessary suffering to any domestic or captive animal, a protection only recently extended to wild animals. The Performing Animals Regulation 1925 covered the registration of animals used in circuses and other public entertainments, and the current procedures for the registration and inspection of pet shops by local authorities were laid down in the Pet Animals Act 1951.

More recent legislation to control dogs includes the Dogs (Protection of Livestock) Act 1953 making it an offence to allow dogs to worry livestock, and the Animals Act 1971 (not applicable to Scotland) which made the protection of livestock a defence in civil proceedings for injuring or killing a dog. The Road Traffic Act 1972 makes it an offence for a dog to be on a designated road other than on a lead.

The seventies also saw the introduction of the Breeding of Dogs Act 1973, a much neglected piece of legislation which has the major flaw that registration as a breeder is optional, with the consequence that very few bother.

Registration

An important more recent law was the Dogs (Northern Ireland) Order 1983, which introduced dog registration and licensing to the province together with provisions for the control of strays. This law, seen by many as a ‘trial run’ for the mainland, is said by the Government to have failed as less than half of dogs are registered. Local practitioners, however, count it a success as there has been a marked reduction in the numbers of complaints made about strays, particularly regarding the worrying of livestock.

The veterinary profession was extensively consulted over the drafting of the Animals (Scientific Procedures) Act 1986. This replaced the Cruelty to Animals Act 1876, introducing a system of licensing of specific projects involving scientific experiments on animals, the places where such work is done, the people responsible for the projects and the technicians who actually do the work. Each project licence must name a veterinary surgeon who is responsible for ensuring the welfare of the animals used.

The most recent and topical dog law is of course the Dangerous Dogs Act 1991. The reasonable provisions of this Act must be counted a major success for the BVA, whose intensive lobbying and consultation helped to tone down the Home Secretary’s original plans to destroy all pit bull terriers.

Members Services Committee
The Harry Steele-Bodger memorial scholarship

THE Harry Steele-Bodger Memorial Fund was established in September 1953 to honour the memory of Henry W. Steele-Bodger, president of the British Veterinary Association from 1939 to 1941, and chairman of the Survey Committee from 1939 to 1946. The fund recognises his great services to the veterinary profession and agriculture; particularly during the war years of 1939 to 1945.

The fund was sponsored by the BVA and contributed to by organised bodies of the university veterinary schools, by agricultural organisations and societies interested in farm stock, horses, dogs and cats, by veterinary surgeons both in the UK and abroad and by many friends and associates of the late Harry Steele-Bodger.

The object of the memorial is to further the aims and aspirations of the late Harry Steele-Bodger and to this end a travelling scholarship or contribution to a tour of study abroad will be awarded at least once in every four years.

Particulars of the award are as follows:

- Those eligible are graduates of the veterinary schools in the United Kingdom and Ireland who have been qualified not more than three years, and penultimate and final year students who would expect to take up the award in their final year.
- Travel scholarships are awarded to assist a visit to a veterinary, agricultural or research institute in Europe, or some other course of study approved by the governing committee.
- The sum available for the 1992 award is about £1100 (to be confirmed).
- Applications must be submitted in the form required by the governing committee, to Mrs H. Cotton, BVA, 7 Mansfield Street, London W1M 0AT (from whom application forms may be obtained), not later than 16 April 1992.

- The successful applicant will be expected to take up the award by January 1, 1993, and will have completed the work by December 31, 1993. If the award is not taken up within 12 months of being accepted, it shall be forfeited.
- Acceptance of an award carries an obligation to provide a report of the tour of study within six months of its completion, and the committee reserves the right to publish the report in The Veterinary Record if it so wishes. The recipient will also be required to provide a report of approximately 500 words for publication should the full report not be published.
- The committee reserves the right to withdraw any award prior to the commencement of the tour.

Vets' own charity

THE Friends of the Veterinary Benevolent Fund (VBF) is a charity and is the fund raising section of the Veterinary Benevolent Fund; last year they donated £17,000 to the VBF for distribution.

Why in the 1990s are they still needed?

ONE of the most frequent comments directed at members of the VBF is ‘Why the need?’ It is appreciated that many insurance policies exist, but none seems to cater for the requests directed to the funds. These are generally the results of extreme old age, long term illness, breakdown in personal relationships, suicide, fatal accidents and extreme hardship in an inflationary world. The welfare state does not encompass everyone and everything. In this age of intense economic pressures, who knows who may be next. The sudden death of the breadwinner may leave a widow or widower who is unable to work because of young children at home, or unable to find a job because of the increasing level of unemployment. One parent families may manage with pride, but have nothing extra to provide for replacement of large items such as a cooker or fridge or car.

Support is often directed to the housebound, supplementing their state benefits by assistance with telephones, television sets, television licenses and supplies of coal.

All requests are investigated carefully, thoughtfully and confidentially by an appointed VBF committee member, to enable the funds to be apportioned justly to those in need. During the past year £32,538 was distributed by the VBF to 50 beneficiaries in the form of regular grants, and £23,390 to 59 beneficiaries as special gifts.

The work of the friends must continue. More assistance is required, especially from the younger generation. Times, attitudes and outlook change but the demand on the funds will inevitably increase.

This is the Vets’ own charity. Any assistance that can be given would be greatly appreciated.

Forthcoming events

ANYONE wishing to publicise forthcoming events should send details to: Simon Wolfensohn, Archway Veterinary Surgery, 21 High Street, Highworth, Wiltshire SN6 7AG, at least two months in advance.
Continuing Education Courses

Imaging in Cardiology

A ONE-day course will be held in Manchester on Sunday January 19, 1992. This will include ‘hands-on’ ultrasonography and X-ray reading sessions and will illustrate contrast study and non-invasive surgical techniques.

Spinal Surgery

A ONE-day course will be held in Manchester on Sunday January 26, 1992. There will be an emphasis on practical ‘hands-on’ experience in disc surgery, decompressive techniques and stabilisation methods. Numbers are strictly limited.

Details of both courses from Pip Boydell, Animal Medical Centre, 511 Wilbraham Road, Chorlton, Manchester M21 1UF, telephone (061) 881 3329.

Pharmacology meeting

A ONE day meeting of the Association for Veterinary Clinical Pharmacology and Therapeutics will be held on January 10, 1992, at the Royal Society of Medicine, 1 Wimpole Street, London. The meeting will discuss the comparative aspects of chemotherapy of tumours in man and animals and use of medicines in fish and zoological species.

For further details contact: Miss S. Wilkins, 3 Austcliffe Cottages, Green Lane, Cookley, Kidderminster, Worcestershire, telephone (0562) 851069.

BSAVA/C-Vet Continuing Education Courses

Spring 1992

WEEKEND COURSES

92/1 Medical Emergencies and Intensive Care

Stafford, January 19-12. Tutors: J. Elliott and A. J. Torrance. THE speakers will describe, in very practical terms, the setting up of an intensive care facility in small animal practice, and will discuss the diagnosis, emergency therapy and therapeutic monitoring of critically ill patients. A wide range of medical emergencies will be considered using a systems based approach. Particular attention will be given to those conditions causing life threatening problems from which complete recovery can be expected given the appropriate intensive care, monitoring and treatment. Aspects of fluid replacement therapy will feature in many of the areas covered and parenteral and enteral nutrition will also be discussed. Case histories will be used to illustrate many of the principles discussed in the lectures.

BSAVA members: Residential £225, non-residential £160. Non-members: Residential £290, non-residential £225.

92/2 Control of Pain and Inflammation

London, January 24. Tutors: P. Lees and A. M. Nolan. THIS course involves a comprehensive overview of the drugs available for the control of pain in small animals. The pharmacology of these drugs and their relevance will be discussed, and their use will be considered in different clinical situations (e.g., the trauma case, perioperative analgesia etc). The problems presented by small animals suffering chronic pain will also be addressed.

BSAVA members: £70, non-members £95.

Further details of these courses and bookings can be made by contacting BSAVA Registrations Office, Kingsley House, Church Lane, Shurdington, Cheltenham, Gloucestershire, GL51 5TQ, telephone (0242) 862994.
Front cover picture shows a 'scout' view of a dog's head during computed tomography. See 'Introduction to computed tomography of the canine brain' on page 2

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Notes for contributors

The Journal of Small Animal Practice publishes original research, review articles and clinical case histories on all aspects of small animal medicine and surgery. Papers submitted to, or published in, other refereed journals will not be considered for publication.

Papers submitted for publication are subject to peer review. If accepted for publication, the copyright becomes the property of the British Small Animal Veterinary Association.

Manuscripts and all communications should be sent to the editor, Journal of Small Animal Practice, 7 Mansfield Street, London W1M 0AT. Manuscripts should be submitted in duplicate in English, typewritten (double spaced) on one side of A4 paper with wide margins.

Format. Papers should be headed with the full title, which should describe accurately the subject matter, up to 15 words. The initials and surnames of the authors, full postal address should follow. Each paper should have a self contained summary (150 words) which embodies the main conclusions, followed by Introduction, Methods, Results and Discussion. Abbreviations should be avoided. Where they must be used, the word or phrase must be given on the first occasion, eg, haemagglutination inhibition (HI). All units of measurement should be given in the metric system or in SI units and temperatures in °C. Medicines should be referred to by generic name, followed by proprietary name and manufacturer in brackets when first mentioned, eg, fenbendazole (Panacur; Hoechst). Anatomical terminology should conform to the nomenclature published in the Nomina Anatomica Veterinaria (1983) 3rd edn. Eds R. E. Habel, J. Frewein, W. O. Sack, World Association of Veterinary Anatomists, Ithaca, New York.

Length of papers. Papers should be concise. The maximum length for general and commissioned articles is 3000 words; for review articles up to 4000 words; for clinical case reports 2000 words.

Tables and illustrations. The minimum necessary to clarify the text should be included and should contain only essential data. Tables should be typewritten on separate sheets and numbered. Illustrations should be drawn in black ink on white paper and should be suitable for direct photographic reproduction. Legends should be typed on a separate sheet. Photomicrographs must state magnification and stain technique. Colour illustrations will be accepted when found necessary by the editor and can be printed only at the author’s expense. (Transparencies should be accompanied by prints.) Each illustration or photograph should bear the author’s name and figure number in pencil on the back with the top marked with an arrow.

References. Only papers closely related to the author’s work should be mentioned. In the text the name of the author and the year should be in brackets, eg (Smith 1980). If the author’s name is an integral part of the sentence, the date only is placed in brackets, eg . . . as reported by Smith (1980). For more than two authors, (Smith and others 1980) should be used. Where several references are quoted together, they should be placed in chronological order. At the end of the paper the references should be listed in alphabetical order of the first author’s name and set out as follows: Author’s name(s) and initials, year of publication in brackets, full title of paper, full title of the journal, volume number and first and last page, eg, Howard, D. R., Schumers, R. G., Mostosky, U. V. & Michiel, R. S. (1973) Adenocarcinoma of the ileum in a young dog, Journal of the American Veterinary Medical Association 162, 956-958. References to books should be as follows: author’s name(s) and initials, date of publication in brackets, name of chapter or section where appropriate, full title of book, edition, publishers and place of publication, pages referred to, eg, Asdell, S. A. (1984) Patterns of Mammalian Reproduction 2nd edn. Constable, London. pp 15-19.

Proofs and reprint forms will be sent to the first named author. Papers describing experimental procedures on animals will be published only if they conform to British legal requirements and contain full details of measures taken to control pain and suffering.

The Journal is covered by Current Contents and Biological Abstracts.