Wessex Branch Association of Clinical Pathologists Autumn Meeting

Meeting held at Postgraduate Medical Centre, Musgrove Park Hospital, Taunton, Saturday 11 November, 1989

The winter meeting of the Wessex Branch of the Association of Clinical Pathologist was held at the Postgraduate Centre, Musgrove Park Hospital, Taunton on Saturday 11 November 1989.

Professor Peter Anthony, President of the Branch, took the chair for the business meeting. For the scientific meeting, which by tradition consists mainly of papers by junior members, the chair was taken by Dr A E Adams (Taunton) in the morning and Dr S C Smith (Taunton) in the afternoon. Nearly 40 pathologists attended.

MUCOSAL PROLAPSE — A POSSIBLE ORIGIN FOR METAPLASTIC POLyps
B F Warren, J D Davies
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The cause of metaplastic colonic polyps is unknown. In the past, their relationship to adenomas has been debated repeatedly. Cases of prolapsing rectal mucosa syndrome frequently show surface epithelial metaplasia. Examination of the base of metaplastic polyps often reveals muscular disruption. The mucin histochemistry of metaplastic polyps and prolapsing rectal mucosa syndrome is similar. We have described previously the occurrence of diamond shaped crypts and intramucosal elastic fibres in prolapsing rectal mucosa syndrome. The histological distinction between larger metaplastic polyps and smaller papilloid manifestations of the prolapsing rectal mucosa syndrome is often extremely difficult.

Twenty-five rectal metaplastic polyps of varying size were examined by light microscopy for the presence of muscular disruption, diamond shaped crypts, fibroplasia of the lamina propria, and intramucosal elastic fibres. The largest polyp examined was 5 mm. Nineteen polyps showed muscular disruption, 14 had muscle fibres within the lamina propria, 14 contained diamond shaped crypts, 14 fibroplasia of the lamina propria, and 18 had intramucosal elastic fibres. In view of these shared histological features, we suggest that rectal metaplastic polyps may be extremely localised forms of mucosal prolapse.

THE EFFECT OF VITAMIN E SUPPLEMENTATION UPON SOME INDICES OF FREE RADICAL ACTIVITY IN INSULIN-DEPENDENT DIABETES
A A McConnell
Southmead Hospital, Bristol

Excess free radical activity is thought to occur in diabetes and may contribute to the development of diabetic complications. This study was carried out to investigate the generation of free radicals, in particular the superoxide radical anion, and also to assess the defence against free radicals in the form of serum vitamin A and E concentrations and caeruloplasmin concentrations, both in a group of insulin-dependent diabetics (number 17) and in an age-matched group of normal control subjects (number 15).

Neutrophil suspensions were used to study the generations of superoxide radical anion, both in the resting state and following stimulation with phorbol myristate acetate, PMA. Superoxide dismutase inhibited these reactions, confirming their dependence on superoxide radical anion. The resting rate of radical production was similar in the diabetic and the control groups, but the production rate in response to PMA was significantly increased in the diabetic group. Supplementation with vitamin E had little effect on these measurements.

Baseline measurements revealed that the diabetic group had higher levels of vitamin E and of caeruloplasmin than the control group. Supplementation produced an increase in vitamin E levels, but a fall in caeruloplasmin levels in both groups. Baseline vitamin A levels were similar in the two groups but fell significantly only in the diabetic group.

A NEW GASTRIC SPIRAL BACTERIUM
Gastrospirillum hominis, gen. nov., sp. nov.
Clodina A M McNulty, Julie C Dent, A Curry*, J C Uff, G A Ford, S P Wilkinson, M W L Gear
Gloucester Public Health Laboratory and *Public Health Laboratory, Manchester

We describe a new spiral bacterium, distinct from C. Pylori, which we found in the gastric mucosa of 6 patients with gastrointestinal symptoms. The organisms were not merely contaminants from the mouth as they were found more than once in the same patients and were found beneath the mucus and within the necks of the pyloric glands. All patients had chronic active type B gastritis and four had oesophagitis. All the patients had another organic cause for their gastrointestinal symptoms. The organism is helical, 3–7µm long and 0.9 µm in diameter with truncated ends flattened at the tips. The organism has an electron dense thickening on the protoplasmic surface of the terminal region and up to 12 sheathed flagella 28 nm in diameter at each pole. The new spiral bacterium does not conform to any known genus but might reasonably be placed in the family Spirillaceae. We propose a new genus “Gastrospirillum” (Gr. n. gastr, pertaining to the stomach; Gr. n. spiri a spiral; M.L. dim. neut. N. spirillum a small spiral) which should include all the spiral bacterium other than C. pylori found in the gastric mucosa of animals. We suggest that the human spiral bacterium should be called “Gastrospirillum hominis”.

THE FARNSWORTH-MUNSELL TEST — ONE IN THE EYE FOR HISTOPATHOLOGY
H S Rigby
Bristol Royal Infirmary, Bristol

Tinctorial stains such as those used in the study of colonic mucins can be expensive, technically difficult, and time con-
west of Jennifer were specificity smear DIAGNOSIS OF CYTOLOGY AS reports techniques could cal vision colours, infection has centile for normals. These individuals may, varying experience performed important and children. In children in the mid-seventies. Of the tick bite. Other manifestations include cranial palsy, Like other disease is erythema rash, It was concluded that such colonization process. This is in contrast to some previous studies in which much higher percentages are quoted. Our method avoids contamination by cervical flora which may explain the lower isolation rate. In conclusion, the endometrium is not always sterile, a wide variety of organisms may colonize the site. Work is continuing in an attempt to define factors involved in the colonization process.

HIGH GRADE B-CELL LYMPHOMA ASSOCIATED WITH DIFFUSE ERYTHRODERMA B H Ramsahoye Bristol

This presentation of non-Hodgkin’s lymphoma with localised or diffuse skin infiltration is normally considered a phenomenon of T-cell lymphoma (Mycosis fungoides or Sezary syndrome). The infiltrate may be manifested by localised patches, plaques or a diffuse erythematous rash. Localised skin infiltration by B-cell lymphoma has been described, but usually as a late manifestation of pre-existing disease. B-cell lymphoma presenting as a diffuse skin rash has not, to our knowledge, been described.

We present a 79 year old man who presented five months prior to his first manifestation of centroblastic B-cell lymphoma (testicular disease) with a diffuse erythematous skin rash with areas of dermal thickening and induration. Treatment with topical steroids caused no improvement but within three days of systemic chemotherapy total resolution of the rash had occurred.

Skin biopsy was undertaken 24 hours post chemotherapy. Histology showed infiltration consistent with lymphoma but marker studies failed to show B-cell clonality. Definitive B-cell infiltration of the skin could therefore not be proved. The temporal association of a diffuse rash occurring for the first time in a 79 year old man with established lymphoma and complete resolution with chemotherapy tends to indicate an
association between the two conditions. We postulate that presentation of high grade B-cell lymphoma with diffuse dermal infiltration does occur, but definitive proof is still required.

A CASE OF AMEGAKARYOCYTIC THROMBOCYTOPENIA RESPONSIVE TO STEROID THERAPY

L Jones
Southmead Hospital, Bristol

Acquired thrombocytopenia due to aplasia of megakaryocytes without other haematopoietic abnormalities or relation to drugs is a rare condition. To our knowledge, only ten adult cases have been reported. The possible pathogenic mechanisms appear to be an intrinsic defect of megakaryocytic colony-forming units (M-CFUs). However, in some patients, a circulating cytotoxic autoantibody to M-CFUs has been described. Death due to thrombocytopenia or progression to aplastic anaemia or amelodysplastic syndrome is the rule.

We present a patient with acquired amegakaryocytic thrombocytopenia with low T8 (cytotoxic/suppression) cell numbers and a 30% infiltration by polyclonal lymphocytes. Response to antilymphocyte globulin and steroids (twice) and steroids alone (once) was seen. Relapse occurred after steroid withdrawal. This is the first recorded response to immuno-suppression by steroids in amegakaryocytic thrombocytopenia. We postulate that immune mechanisms are occasionally responsible for this condition.

South West Orthopaedic Club

Meeting held at Bristol Royal Infirmary, Saturday 4th November, 1989

The meeting consisted of clinical presentations in the morning and a Guest Lecture by Mr Ian Watt, Consultant Radiologist, Bristol Royal Infirmary, who talked about the place of Magnetic Resonance Imaging in Orthopaedics. The South West Orthopaedic Club Prize was presented to Mr M F Gargan for his Paper entitled “The Long Term Prognosis of Soft Tissue Injuries of the Neck”, which was work done when he was a Registrar at Southmead, although he presently is a Registrar in Oxford. There was a Proxime accessit award to Miss D M Eastwood of Bristol. Her Paper was entitled “Trigger Fingers—The Direct Approach”.

AUTOLOGOUS BLOOD TRANSFUSION AND TOTAL KNEE ARTHROPLASTY

R. S. Majkowski, I. Currie, J. H. Newman
Winford Orthopaedic Hospital

A prospective randomised trial was undertaken to evaluate autologous blood transfusion using the Solcotrans orthopaedic system to collect blood drained following total knee replacement. We were particularly interested in:

1) Savings in the use of bank blood.
2) The safety and practicality of this system.

Forty patients having unilateral total knee arthroplasty were entered into the trial (20 Solcotrans, 20 control). There were 28 women and 12 men (average age 70.8 yrs).

The mean total drainage in the two groups was 1138 mls (control) and 1020 mls (Socotrans) (P>0.1). Homologous blood was required in 19 out of 20 patients (95%) in the control group (mean 2.5 units per patient) but in only seven out of 20 (33%) in the Solcotrans group (mean 0.9 units per patient) (P<0.001), a saving of 1.6 units per patient. A mean of 470 mls per patient of autologous blood was reinfused in the Solcotrans group.

Haemoglobin was measured pre-operatively intra-operatively (prior to release of tourniquet), and at 1, 4 and 8 days post-operatively. Haemoglobin on admission was 12.7 in the control group and 13.2 in the Solcotrans group (P>0.1). At eight days it was 11.6 and 11.4 respectively (P>0.1). There were no complications arising specifically from the use of this system or reinfusing autologous blood. A significant reduction in the need for bank blood has been demonstrated.

“THE TECHNIQUE AND CLINICAL RESULTS OF A DOUBLE-OBlique PLANAR TIBIAL OSTEOTOMY”

T. P. Green
Gloucestershire Royal Hospital

The use of high tibial osteotomy in osteoarthritis of the knee is well described and a widely practiced operation. The procedure corrects progressive varus deformity and reduces pain in correctly selected cases. Various methods have been described, the commonest methods being either a closing wedge or a dome osteotomy.

We describe a different type of osteotomy, it being a planar cut that relies on it being oblique in 2 planes to produce its effect. No bone is removed and the osteotomy allows for tibial tuberosity elevation and the correction of tibial torsion where necessary.

The technique has been used successfully at Gloucester for the last 4 years. In terms of pain relief, range of movements and walking ability the double-oblique osteotomy is shown to be comparable in effect to the other more widely used techniques with the benefit of being a simpler procedure.

THE PALMAR CUTANEOUS BRANCH OF THE MEDIAN NERVE; THE RATIONALE FOR Volar WRIST INCISIONS BASED ON THE ANATOMY

P. A. Magnusen
Bristol Royal Infirmary
R. J. Hobbs, M. A. Tonkin
Royal North Shore Hospital, Sydney, Australia.

The palmar cutaneous branch of the median nerve was dissected in 25 fresh cadaveric forearms and hands. Previous