VENEREAL DISEASE

Venereal disease has been the cause of concern for health authorities in the Western world for many years. Legislation passed in the United Kingdom after publication of the report of the Royal Commission in 1916 and the Swedish law of 1918 are proof that much thought had been given by then to elucidating the epidemiology of venereal diseases and of deciding how the factors responsible for continued propagation of these maladies could be controlled.

The usefulness of venereal disease legislation is difficult to evaluate. It is certain, however, that it has not eliminated venereal disease. Prevalence trends in the late 1930s were said to be similar in different countries, irrespective of the methods by which control was attempted.¹

Hope rose again after the advent of effective chemotherapeutic agents and antibiotics. These have now been available for a quarter of a century. In spite of the well-documented decrease in the sensitivity of the gonococcus to penicillin, the situation as regards the availability of effective treatment routines has actually improved over this period, since not only are highly efficacious penicillin regimes still available, but the armamentarium has been enlarged with a number of new drugs. A single course of the latter will cure gonorrhoea in over 90% of cases, a rate which would be regarded as very high in the treatment of most other diseases. As regards syphilis, the uniform success of penicillin therapy has not decreased since its introduction. Gonorrhoea and syphilis are virtually unique among infective conditions as regards efficacy of treatment and the short time after its commencement before communicability ceases. There have also been marked and well-known advances in the laboratory diagnosis of both gonorrhoea and syphilis, aiding clinical management.

The therapeutic advances were followed by a decline in the prevalence of venereal disease in the 1950s, but the recent upsurge shows that high potential in the treatment is not the major factor concerned in the control of the problem at present.

¹ Wilcox, R. R., *Textbook of Venereal Diseases and Treponematoses*, 2nd Edition, Heinemann, London, 1964.

Venereal diseases are transmitted mostly, although not exclusively, by sexual contact, and their spread can be expected to be affected by changes in sexual mores and practices in any one society, and by differences in this respect between different cultures. Increase in permissiveness, in the availability of effective means of contraception and in the affluence (and consequently the independence) of the young are well known recent developments in our social environment; the ready availability of transport now provides much greater opportunities for short and long distance travel for recreational and other purposes than used to exist. It is commonly assumed that there has also been a lowering of the average age at which sexual activity is entered upon and an increase in promiscuity, possibly because of the social changes referred to; both these factors are, of course, highly significant in the epidemiology of any sexually transmitted disorder. The fear of social stigma and ignorance of the disease as well as of the availability of help tend to deter potential sufferers from presenting for examination. Prostitution has come to be regarded as less important in the spread of venereal disease than it was in the earlier years of this century.

What information is at our disposal on which to base future action with hopes of greater effectiveness than that hitherto experienced in this country?

The groups at the greatest risk are known. Gonorrhoea is, in the main, a heterosexually transmitted disease with the greatest incidence centred around the 15 to 24 years age group. In the male, the infective stage nearly always makes its presence known to the patient and induces him to seek treatment; infectiveness without symptoms is said to occur,² but is probably rare enough not to be epidemiologically significant. In women, however, asymptomatic but infective gonorrhoea is said to account for as much as 80% of the total prevalence.³ Syphilis tends to occur in an older age group; homosexual contact is thought to be involved in its transmission in many,

² Blount, J. H., *Amer. J. publ. Hth*, 1972, 62: 710.
³ U.S. Department of Health, Education and Welfare, *Current trend in gonorrhoea culture-screening (summary), Morbidity and Mortality, 1971*, 20: 443.
perhaps in the majority, of the males who acquire it. Early infective syphilis may be clinically inapparent in both sexes if the primary lesion is in a body cavity (vagina, rectum, mouth), but the female preponderance in the proportion of asymptomatic cases is much less marked than for gonorrhoea. The monitoring of incidence of gonorrhoea and syphilis is based on notification by doctors, which may be compulsory under venereal disease legislation; although it is known that perhaps as many as 90% of cases seen by doctors are not notified, the statistics may be regarded as a rough guide to major changes in trends. Although special surveys may have to be mounted from time to time to supplement intelligence, some areas have been identified where effective action appears possible but has not yet been taken.

Control measures fall into two categories: those associated with individual cases and those concerned with prevention in the community. The first set of activities comprises diagnosis, treatment and the follow up of contacts. Clinical management is the direct responsibility of doctors, whether in practice, in hospitals or in departmental agencies; wherever they are, they must be competent and up to date, and they must not adopt punitive or moralizing attitudes, which discourage the patients from returning for the completion of the treatment and from persuading their contacts to seek medical help. Clinical competence depends, in the first place, on adequate undergraduate tuition. In this regard it seems desirable to review and, if necessary, adjust late clinical year curricula. Knowledge may be kept up to date by appropriate journal articles such as the one by W. A. Lopez published on page 303 of this issue and by seminars. The interest of doctors in the subject was shown by the large attendance at an evening seminar held in Sydney last year. As far as the patients are concerned, medical help for suspected venereal disease not only must be available but must be available free of charge, if desired, and must be convenient to obtain as regards time and place.

While improvements could undoubtedly be made to the delivery and quality of clinical venereal disease services, the position in Australia may be regarded as generally satisfactory. Whatever improvements are considered desirable, their implementation should be relatively easy.

The same, however, cannot be said for the follow-up of contacts, which is an essential corollary to clinical management, and for the organization of educational prevention in the community.

The purpose of contact tracing is, of course, to bring to examination and, if necessary, to treatment those who appear to have passed on a venereal infection and those who may have contracted it from someone whose condition has been recently diagnosed. Theoretically, contact tracing should eliminate venereal disease from the community in a short time if a high proportion of fresh cases were followed up successfully. In practice, for gonorrhoea it is necessary to trace female infectors of male patients, since a large proportion of females infected with the disease are asymptomatic; but it is not essential to look for male infectors of females, as the infected male is likely to seek treatment anyway. All contacts of patients with early syphilis of either sex should be followed up. Contact tracing needs to be done both in the consulting room and in the field. It is time-consuming, emotionally exacting and often frustrating; but if it is carried out with the correct approach and perseverance, up to 50% success may be expected. However, it is usual to encounter difficulties with male passive homosexuals, who tend to have bouts of extreme promiscuity and may not be able to give any clues concerning their contacts.

The real problem, however, is that while contact tracing services may be provided by public health agencies and hospitals (subject only to funds), doctors in private practice who see patients with venereal disease do not employ personnel for this purpose and would probably be unwilling to utilize the services of contact tracing officers if such were offered to them by public health authorities; many would not have the time to perform the work themselves, although they could be expected to ask new patients to persuade their contacts to present themselves for examination. If, say, 80% of all patients with venereal disease are seen in private practice, and if contact tracing is applied to the 20% who attend public agencies with a success rate of 50%, then the contacts of only 10% of all new patients would be brought to surveillance. Such a rate could not be expected to reduce the overall incidence of venereal disease significantly.

There remains the area of prevention by education in the community. This, being the most difficult, has had less effort spent on it than administrative measures or the provision of clinical facilities. Gonorrhoea occurs in this country mainly in the promiscuous young of both sexes. These patients and, to a lesser extent, those in older age groups are very frequently ignorant of the manifestations and consequences of venereal diseases, of the likelihood of contracting them and of methods of prevention, and they may not know how to go about obtaining medical checks if exposure has occurred. Prevention by education has not yet been given a thorough trial; certainly it has not in this country. Although there is much to be gained by disseminating information among those already at risk, an educative approach is most likely to succeed if the knowledge imparted is mature in the mind of the recipients by the time its application may be required—that is, before puberty. Elementary facts about venereal disease would, therefore, have to be taught at late primary level if the matter were to be dealt with at school. Such tuition would not have to be a part of sex education, but the latter would form an essential prerequisite. Reinforcement would follow during the secondary years.

—Jefferys, F. J. G., Brit. J. vener. Dis., 1966, 42: 46.
The acceptability by our society of such a scheme would have to be explored. Some may mistakenly regard it as official condonation of something that should be opposed strongly, rather than as an attempt at solving a pressing problem in a realistic manner. It may be argued that this matter should be left to parents or religious bodies. Certainly, help from both those quarters would be more valuable; but they have appeared to be reluctant to tackle the job in the past, and they would be more difficult to train in delivering the tuition than educational personnel.

What is the role of doctors in the control of venereal disease? Clinical management and assisting the health authority in implementing the accepted administrative measures are clearly their duty, and the few seriously involved in health education have an important part in organizing the prevention. But it must be recognized that venereal disease is a social rather than a medical problem, related to customs, mores, attitudes and ways of life; the traditional administrative and clinical approaches are still needed, but they will not solve the problem.

COMMMENTS

HEPATIC SURGERY

A RECENT PAPER by M. Balasegaram on major hepatic resections illustrates the extent to which direct hepatic surgery has developed since the days when William Keen of Philadelphia reported the removal of an adenoma of the bile ducts "by the Paquelin cautery and enucleation by the fingernail". As Balasegaram has pointed out before, improved understanding of the anatomy of the liver and the availability of precise diagnostic techniques have done much to make effective liver surgery possible. Progress in diagnostic techniques in the last ten years or so has been spectacular. Needle biopsy of the liver, liver scanning, splenoportography and selective hepatic angiography have made preoperative diagnosis a much less haphazard process.

Surgery carried out for benign conditions (parasitic and congenital cysts, hamartomas, abscesses, trauma and benign tumours) generally produces acceptable results. Resection for primary and secondary malignant tumours has been much more disappointing. Although there are isolated reports of good survival after resection of "solitary" metastatic tumours, it is far more common to find that both liver lobes are involved by the metastases, and that anatomical resection will not cope with the problem. Carcinoma of the gallbladder also continues to have an appallingly bad prognosis. Only about 3% of the patients treated surgically survive for five years.

Primary liver cancers are most common in South-East Asia and Africa, and they are relatively rare elsewhere. In most parts of the world, hepatoma is most commonly seen late in the progress of cirrhosis. The generally disappointing results obtained in the treatment of hepatoma can be gauged from the paper by H. P. Curutchet and his colleagues, who reported experience with 65 patients in 1971 at the Medical College of Virginia. Sixty per cent of the carcinomas arose in cirrhotic livers. Only 33 of the 65 patients were considered candidates for exploration, and possible removal of the tumour. At exploration, only six were found to have tumours suitable for standard hepatic lobectomy. Of the six, there were only two long-term survivors. Reports from South-East Asia suggest that between 30% and 40% of hepatomas in that area are suitable for hepatic lobectomy. There is general agreement that the results of resection in cirrhotics are uniformly disappointing.

Direct hepatic surgery will achieve its best results in expert and experienced hands at large centres where skilled resuscitative and metabolic monitoring is possible. The impressive list of postoperative complications and metabolic derangements that may occur after hepatic resection have recently been documented by J. A. Pinkerton and his colleagues. The overall mortality amongst their 31 patients was 23%. Pneumonia and subphrenic abscess, stress ulceration of the stomach or duodenum, and coagulation disturbances were all recorded. There was some evidence that the incidence of stress ulceration may be higher when bile duct drainage is used as a routine measure after hepatic resection. Hypoglycaemia and hypoalbuminemia can both be prevented by infusions of glucose solutions and serum albumin preparations.

The technicalities of liver surgery are now reasonably well established. An understanding of the vascular anatomy of the liver is essential for any rational surgery.

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