

Herpes Virus and Psychiatric Disorders

Since Hippocrates taught that an abnormal mental state was a sign of disordered bodily function, doctors have searched for physical causes of mental disturbance. Skin lesions were described early, and among them herpes labialis was recognized in the nineteenth century as not uncommon in acute psychosis.¹

Interest in the relation of herpes virus to disease of the nervous system was stimulated when it was also reported in patients with lethargic encephalitis during the epidemic after the first world war.² Attempts to prove the virus was the cause of the disease^{3 4} were subsequently not confirmed,^{5 6} but by then more was known about it. Three-quarters of the population showed evidence of infection,⁷ but in the majority this was either asymptomatic or shown by "cold sores" developing whenever the balance between host and parasite was upset—as, for instance, by fever or exposure to sunlight.⁸ At the same time the concept of virus disease of the nervous system was enlarged to include not only those infections which occur once only with the establishment of permanent immunity, like poliomyelitis, but also recurrent attacks as well as progressive neurological disablement, of which Parkinsonism became the classical example.⁹

Recent work on so-called slow virus diseases affecting the nervous system of animals and man has given renewed impetus to the study of the herpes virus in this role and how it may become pathogenic.¹⁰ At the same time it has been realized that acute herpetic encephalitis producing convulsions, coma, and paralysis is not the invariably fatal condition it was believed to be. Recovery with varying degrees of defect is well authenticated,¹¹ and often these defects are mental rather than motor—that is, psychiatric rather than neurological. This may reflect the virus's predilection for the fronto-temporal regions of the brain.¹²

Cases have also been reported in which the infection presented chiefly with mental symptoms, in association with recurrent herpes of the lips,¹³ with rising herpes-antibody titres in the blood,¹⁴ and with skin lesions in conjunction with increases of protein in the cerebrospinal fluid.¹⁵ It now appears from the findings of Dr. J. F. Cleobury and his colleagues reported at page 438 of the *B.M.J.* this week that even these mild infections may pass unrecognized and come to notice only from their sequelae. Patients with aggressive outbursts like those they investigated commonly have abnormalities in their electroencephalogram pointing in particular to temporal-lobe dysfunction,^{16 17} which is the most likely site of herpes infection. Minimal brain damage may cause the most disruptive behaviour, especially in younger patients.¹⁸ A search for neurological signs in such cases is therefore important. Social background may also be important, since there is a relationship between herpes virus antibody and living standards.¹⁹ Sharper clinical definition will add greatly to the value of this promising line of research. The term psychopath is more epithetic than descriptive, and in an age of investigative medicine carries no diagnostic weight.

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Bleeding from Oesophageal Varices

The control of haemorrhage from oesophageal varices in patients with parenchymal liver disease is a difficult problem. Whatever method of management is employed, the reported results are uniformly depressing, with mortality rates ranging from 30 to 80%.^{1 2} Though a variety of operations have been used over the past 20 years, there is still no general agreement as to their timing and effectiveness. In fact, in some units operation is almost never recommended.

There have been two main types of surgical treatment of bleeding varices. Firstly are those operations which try to occlude the varices directly. A left thoracotomy may be used to obtain direct surgical access to the lower oesophagus and the varices may be under-run or transected.^{3 4} An alternative approach is to occlude the varices by injecting sclerosants through an oesophagoscope.⁵ The latter method is attractive because it avoids a major operation in a desperately ill patient, but its relative effectiveness compared with the other method is not generally agreed. After both kinds of treatment, however, there is a definite incidence of rebleeding.

The second main surgical approach is to lower the portal pressure by a portacaval shunt. This has the virtue of giving permanent protection against further bleeding, but when applied to all patients the mortality rate is formidable, being at least 50%.¹ A review of one series showed that if a patient had no ascites, no encephalopathy, a serum albumin level of more than 3 g per 100 ml, and a serum bilirubin of less than 3 mg per 100 ml, then an emergency shunt operation produced good results (no deaths in 18 patients); on the other hand, of 19 patients with more than one of these unfavourable criteria there were 13 deaths.⁶

A temporary reduction of portal pressure has been attempted by dilating the obliterated umbilical vein and either anastomosing it to the inferior vena cava⁷ or connecting it by an external shunt to a systemic vein.⁸ The small calibre of such makeshift shunts makes them prone to thrombosis, and the reduction in portal pressure is almost certainly incomplete. Moreover, attempts to dilate the obliterated umbilical vein are not without risk.⁹ A thoracic duct fistula has been claimed to lower the portal pressure and stop bleeding from varices.¹⁰ This effect is probably achieved more by lowering the blood volume than by a reduction in intrahepatic congestion, as was

first suggested.¹¹ Furthermore, a thoracic duct fistula is difficult to keep draining for more than a few days, and once it becomes occluded bleeding is likely to recur.

In summary the control of oesophageal haemorrhage remains an unsolved problem, while the prognosis is determined largely by the patient's liver function. The desirability, timing, and nature of any of the possible surgical procedures are still not established.

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Prevention of Suicide

Attempted suicide has long reached epidemic proportions, with an incidence of about 1 per 1,000 population per annum in our cities. It accounts for up to 15% of acute medical admissions, entails at least 50,000 psychiatric consultations per annum, and continues to increase at a rate of nearly 10% per annum.^{1 2} Viewed as attempts at self-destruction, many of these episodes appear to be half-hearted or histrionic, and the medical staff who have to deal with them sometimes feel a sense of irritation which they find difficult to conceal.

The acute risk to life often bears no relationship to the seriousness with which the attempt is made. A trivial overdose may be taken with more serious intent than a poisonous dose which nearly results in death. Any suicidal gesture carries a high risk of repetition and, owing to the inherent danger of the methods commonly adopted, a subsequent death rate of 1-2% per annum.^{3 4} It is still commonly held that people who talk about it never kill themselves, but several studies have shown that a high proportion of persons committing or attempting suicide give notice of their intent, and as many as half of them have recently consulted their doctor.^{4 5} Indeed, W. Ironside has put forward evidence to suggest that failure of the doctor to recognize and respond to the patient's needs may have been a factor in the precipitation of some suicides.^{6 7}

Suicide and attempted suicide are distinct but overlapping patterns of behaviour. Probably most people who commit suicide intend to die but some will survive and be labelled attempted suicide. But the great majority of those labelled attempted suicide are not addressing themselves to death: they are seeking, for a variety of motives, suspension of consciousness by methods so dangerous as sometimes to end in death. N. Kessel⁸ has advocated the terms self-poisoning or self-injury for this form of behaviour, while N. Kreitman⁹ and colleagues preferred the description "parasuicide" to escape the constraints on thinking resulting from the implications of the term attempted suicide. Though the proportion of unintended deaths among people who attempt only self-poisoning may remain fairly constant, they continue by their increase in number to add to the total of people killing themselves and so further blur the distinction between suicide and self-injury.

Early recognition and prompt treatment of serious psychiatric disorder, particularly depression and alcoholism, are of prime importance in the prevention of suicide. In both suicide and self-poisoning the act is often impulsive and dependent on the ready availability of a suitable poison. Difficulty in obtaining large quantities of drugs on prescription or over the counter might deter many victims. The contribution of formal psychiatric disorder to self-poisoning or parasuicide is more difficult to estimate. The act is often an incident of crisis in a psychological disturbance or social predicament rather than the symptom of a disease treatable by pharmacological means. Faced with a situation calling for skills in which he may lack training, the doctor is often tempted to refer such patients to psychiatric clinics, frequently with a delay which ensures that the crisis has resolved (perhaps inappropriately) by the time help is offered. Crisis intervention techniques¹⁰ may be more suitable in these circumstances than more orthodox forms of treatment and may account for the apparent success of emergency counselling services such as the Samaritans.¹¹ In a study of deliberate self-poisoning or self-injury presenting to the casualty department of a London teaching hospital S. Greer and C. Bagley¹² reported that despite injunctions from the Ministry of Health¹³ 22% of the patients presenting were not referred for psychiatric opinion; for a further 36% psychiatric contact was limited to one or two interviews; and only 42% received prolonged treatment. In these circumstances it is encouraging to find that the patients offered treatment were less likely to make a further attempt or actually to commit suicide than the others, while the group not seen by a psychiatrist carried the highest morbidity. Thus it does appear that help offered at the time can bring real benefit.

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Dull in Tooth and Mind

Defects in teeth, particularly crown defects, are more common among mentally retarded children.¹ Both the teeth and the nervous system are derived from the embryonic ectoderm. In a recent survey H. J. Cohen and H. Diner² investigated the significance of developmental dental enamel defects in three groups of children: 215 suspected of a neurological or mental disorder, 139 children of a similar low-income background attending a day centre, and 150 from middle class backgrounds attending nurseries or kindergartens. All three groups were comparable in age, 2-14 years, and all had known dental data. Developmental enamel defects were most common in group 1, and particularly in those with neurological deficit. Enamel defects were least common in the children in group 3. Cohen and Diner also noted a definite correlation between enamel defects and low intelligence quotient, where neurological defects, unspecified, were also noted.