CHILDHOOD AUTISM: AN INVESTIGATION OF AETIOLOGICAL FACTORS IN TWENTY-FIVE CASES

DEAR SIR,

The paper by Lobascher *et al.*, in the November, 1970, issue (pp. 525–9) makes two suggestions about the causes of childhood autism which seem at first sight to be incompatible, namely that there is a strong (40 per cent) inherited element, more particularly from the father's side in this illness, and secondly that it is associated with overdue birth dates and prolonged parturition. These two statements could, however, be reconciled if the foetus triggered its own birth.

It is known (Comline, Silver and Silver, 1970) that in animals pregnancy can be indefinitely prolonged if either the pituitary or the adrenals of the foetus are removed, whence it is clear that it is the foetal adrenals which trigger the birth. That this is correct has been shown by injecting ACTH or cortisol into the foetal (as distinct from the maternal) circulation of a hypophysectomized foetus. This immediately precipitates labour. Is it not possible that the fault in autistic children resides in the adrenals (or alternatively in the pituitary)?

Incidentally it would not follow from this that the prolonged pre-natal period, with its risk of anoxia etc., was the *cause* of autism. The delayed birth might simply be one of the symptoms of a disorder of the adrenals which makes itself felt in other ways at a later date. The fact that autism tends not to develop till the age of two or three does suggest that it is not due to birth injury but rather to the fact that some system which ought to come into operation at this time fails to do so, perhaps because of the same deficiency which led to the prolonged pre-natal life.

It is claimed (Turnbull and Anderson, 1970) that the date of birth in man can be predicted from the levels of oestriol in the maternal urine at 34 weeks and that the higher the levels the earlier the birth. Also oestriol synthesis in pregancy is known to be due to the foetal-placental unit (Driscoll, 1969). Since the foetus can inherit autism from its father the fault cannot be in the placenta which performs the final stage of synthesis, the conversion of dehydroepiandrosterone sulphate to oestriol. The error must, therefore, lie in the route by which the foetal adrenals convert pregnenolone via 17OH pregnenolone and dehydroepiandrosterone to dehydroepiandrosterone sulphate. (It cannot be due to a fault in pregnenolone metabolism because this is the substrate for synthesis of all the adrenal cortical hormones and a failure here would lead to widespread and easily recognizable disorders).

If the condition persisted after birth one would expect oestriol levels to be abnormally low but not those of the other adrenal cortical hormones which are synthesized by a different route. Hence autism could be due to low levels of oestriol and of one, or more, of its precursors. It could not be due to abnormally high levels of one of the latter substances due to blockade at some point in the route because persons with adrenal carcinoma excrete prodigious quantities of these intermediates (Wilson, 1960) but they have no autistic symptoms.

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A LOCAL MENTAL HEALTH LIAISON COMMITTEE

DEAR SIR,

The Memorandum on 'Future Patterns of Care for the Mentally Subnormal' (*British Journal of Psychiatry*, November, 1970), emphasizes the need for co-ordination of the various services for the mentally subnormal. The Circular H.M. (65) 104 on 'Improving the Effectiveness of the Hospital Service for the Mentally Subnormal' mentions in paragraph 9 the need to strengthen links between hospitals for the mentally handicapped and the community, and suggests that one way of bringing this about is the local mental health liaison committee.

Such a local liaison committee has been established in an area of the West Riding of Yorkshire and is meeting at two- to three-monthly intervals at a hospital for the mentally handicapped. The members of the committee are drawn from the local health authority and the hospital service. They include the Principal County Medical Officer for Mental

Health, an administrative officer, and mental welfare officers of the local health department. The hospital representatives are the Consultant Psychiatrists, the hospital's Director of Rehabilitation, Psychiatric Social Worker and Senior Ward Nurses.

The meeting serves a number of purposes. Firstly, they bring together members of the local authority and hospital staffs to form a team to discuss patients' progress and placement. Secondly patients who are ready for accommodation outside hospital are brought to the notice of the local authority. Thirdly, there is the opportunity to consider the priorities of patients who may be awaiting admission. Fourthly, the need to renew and reinforce communications between home and patient is often revealed.

Unfortunately, not all the excellent recommendations in the Royal Medico-Psychological Association's Memorandum are likely to be implemented in the near future; but the mental health liaison committee provides one means of overcoming some of the inadequacies and differences which arise in the present arrangement for the care of the mentally handicapped.

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MIGRAINE, ANOREXIA NERVOSA AND SCHIZOPHRENIA

DEAR SIR,

Whilst I appreciate Dr. Gosling's interesting points (*Journal*, November, 1970), some doubt has been expressed about the use of oral contraceptives in migrainous subjects in view of the preliminary stage of cerebral arterial constriction, at which time it was thought that thrombus formation might be encouraged. No doubt this risk is less since the 'Scowen Scare', but should still be borne in mind.

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UNIPOLAR AND BIPOLAR AFFECTIVE PSYCHOSIS. THE PROBLEM OF CLASSIFICATION ILLUSTRATED BY A CASE HISTORY

DEAR SIR,

Leonhard (1) suggested that on purely clinical grounds affective psychosis could be classed as unipolar (attacks of depression only) or bipolar (attacks of depression and mania). Perris (2) compared the expectation of bipolar and unipolar psychosis in the relatives of a series of 138 patients with bipolar psychosis (patients who had had at least one attack of depression and one of mania) and 139 patients with unipolar psychosis (patients who had had three discrete attacks of depression), and produced evidence that these two classes might be genetically distinct. A difficulty with such studies is that until the patient's death there is no certain way of classifying his psychosis. Perris (3) later showed that attacks of mania were very uncommon after more than four depressive attacks. However, the present case history shows that typical mania may occur after as many as 13 distinct depressive attacks.

Case History

The patient was born in 1907. She was the second in a family of six and has had three daughters. There is no family history of mental illness. She married in 1935, and her husband, a boilerman, died in 1955. For many years she has worked as a laundry presser. She is described by her daughter as being energetic when well, but of a suspicious nature.

Her first depressive illness occurred in 1933 at the age of 26. This lasted a month, and a year later she had another lasting about the same period and requiring hospital admission. She had no further mental illness for over 20 years, but between the ages of 49 and 59 she had eleven hospital admissions for depression. These recurrences tended to develop acutely (in a week or two) and to be characterized by retardation, ideas of unworthiness, insomnia, anorexia, and (in the early attacks only) hostility towards her family. On five occasions she attempted suicide. Bouts of drenching perspiration heralded the onset of each attack, but no significant abnormality in her physical health has been found to account for this. The attacks each lasted 2 to 4 months and were variously treated with drugs and ECT. In between her psychotic episodes she kept at work and lived a normal active life.

At the age of 59, she had her twelfth hospital admission for depression, but after 26 days (and on antidepressant drugs) she became manic, elated, overactive and overtalkative and making amorous advances to male patients. This was an astonishing change in a patient so well known to the hospital staff. After two months she recovered her normal health. During the next 18 months she had two more attacks of depression, but during her fifteenth admission (age 61), again for depression, she had a further manic episode. Since then she has had two further admissions for depression only.

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