Intravenous Ergometrine for Retained Placenta

SIR,—Prof. J. Chassar Moir in his letter (Aug. 23, p. 309) states that "it is a matter of opinion whether severe third-stage haemorrhage is best dealt with by injection of an oxytocic drug, or by prompt manual removal of the placenta when simpler manipulative measures have failed." He then goes on to say that his own preference, if the uterus is relaxed, is for an oxytocic drug.

I feel that the treatment of all severe third-stage haemorrhages should not be along any such line of routine therapy. There are the well-known physical predisposing causes of third-stage haemorrhage, such as multiple pregnancy, exhaustion after a long labour, encroachment of the placenta on the lower uterine segment, etc., in which the giving of an oxytocic drug may be the most convenient and best treatment, but there is a group of cases in which third-stage disordered action of the uterus is due to psychogenic causes. These cases may follow a primary uterine inertia, or other evidence of functional uterine disorder, in the previous stages of labour. There may have been openly expressed morbid fears, or, more often, these may have been suppressed. These cases exhibit a degree of collapse out of all proportion to the amount of blood lost. In my opinion they are best treated by giving an anaesthetic (I prefer open ether) and manual removal of the placenta, followed by an oxytocic drug and morphine. It is a feature of these cases that the condition of the patient improves rapidly during induction of anaesthesia, and their condition tends to deteriorate with the return of consciousness unless morphine has been given.

With the remainder of Prof. Chassar Moir's letter I am in complete agreement, and he has done a valuable service in pointing out the certainty of undesirable side-effects being produced if a dose of ergometrine 0.5 mg. is given intravenously, as advised in "Any Questions?" (Aug. 2, p. 195).

Finally he criticizes, by inference, the routine administration of ergometrine in the third stage. This practice appears to be an attempt to improve on normality, and will be looked upon by future generations in the same light as we view to-day the routine (ritualistic?) purging of children every Friday night.—I am, etc.,

South Shields.

TERENCE ROBINSON.

Oxygen Poisoning in Man

SIR,—Prof. J. B. S. Haldane is wrong in stating (Aug. 9, p. 226) that I attribute oxygen poisoning to carbon dioxide accumulation. I take the same view as he does that it enhances oxygen poisoning, and that is why Dr. Donald observed oxygen poisoning with exceptionally low pressures, particularly in the case of a diver tested under water in a dock basin. In this case anxiety may have caused rapid shallow breathing and consequent accumulation of the dead-space carbon dioxide. I think that "nitrogen" poisoning may really be due to accumulation of carbon dioxide.—I am, etc.,

Chalfont St. Peter, Bucks.

LEONARD HILL.

The Extent of Neurosis

SIR,—The leading article entitled "Neurosis and Industry" (Aug. 16, p. 257) has tempted me to inform you of the result of a survey I undertook in June in an endeavour to estimate the proportion of 'psychic disturbances in a general practice. I did this for my own interest, but the result was surprising even to myself.

The survey was undertaken at a time when the surgeries were not heavy, when there was time to discuss complaints, conduct examinations, and assess the situation more fully than usual. It occupied 17 days and concerned 100 consecutive new patients coming to the surgery between the age of 5 and decrepitude; 46% were frequent attenders whose general physical and emotional backgrounds were well known. Each patient was given ten units of illness, and these ten units were apportioned to psychopathic or rationally physical disorders as best I could judge. A middle-aged woman stating that her nerves were out of order, complaining of irritability, ready fear, and insomnia, and demanding a tonic would be given a bromide mixture and rated as ten units of emotional anxiety, *nil* physical.

A man exhibiting a follicular tonsillitis, with a temperature of 100° F. (37.8° C.), wanting a gargle, and stating he would like to continue at work would be sent home to bed, given appropriate treatment, and assessed as ten units of rationally physical disorder. Many cases were intermediate, with anxiety enlarging a normal ailment. Of the total 1,000 units 453 were attributable to psychic causation and 547 to adequately physical disorder—a proportion which indicated that of every twenty patients coming to the surgery nine were more emotionally ill than actually so.

While the assessment must be regarded as subjective on my part it was not undertaken lightly, and almost four years of completely psychological work has given me fair ground for carrying out such an investigation with accuracy. There must be many experienced general practitioners who could carry out such an estimation, and their figures would be most interesting to know and of value in calculating the neurotic element in illness—I am, etc.,

Stockton-on-Tees.

L. F. DONNAN.

A Giant Naevus

SIR,—Miss X, aged 21, consulted me in June, 1940. Her history was that she was born with a small port-wine stain on the margin of her lower jaw, that it had grown steadily, and that she wanted to be rid of it as it precluded her admission into a convent. She said it had not caused her any trouble, that her general health had always been good, and her complaint was more of a nuisance and disfigurement than anything else.

On examination I found a tumour, port-wine in colour, with large veins coursing over a coarse and roughened surface, hanging over her left breast and completely occluding it. Its boundaries were as follows:—From the mid-point on the chin it extended along the border of the lower jaw, skirting the lobe of the ear to the middle of the nape of the neck, just below the occipital protuberance; medially down along the midline of the neck, and half-way down the sternum; laterally, from the occipital protuberance obliquely across the back of the neck to the top of the shoulder, and curving inwards to meet the opposite side at the mid-sternal level.

The excision of the tumour appeared a formidable task owing to its vascularity. A dose of 16,000 mg.-hours was given superficially with radium needles distributed over Columbia paste plaque, screened by lead sheeting 1 mm. thick. Three weeks later, with circumferential local analgesia, the whole of the tumour was excised. It consisted of the thickened skin and platysma. The bleeding was not troublesome. The weight of the tumour had dragged upon and loosened the surrounding skin, and it was quite easy to close the gap left by the base of the tumour. The wound did quite well, except for a small area the size of a florin, which healed by granulation. I heard from the patient a few weeks ago that she was quite pleased with the result of the operation.—I am, etc.,

Newtown, Waterford.

A. J. D'ABREU.

Poliomyelitis

SIR,—According to your report¹ of a recent meeting at the Central Public Health Laboratory, Colindale, there is no evidence that flies are helping to spread infection in the present outbreak of poliomyelitis. This is so opposed to American experience that I was not surprised to learn from the Ministry of Health that it is essentially an assumption. The statement is not based on specific investigations, for none has been attempted.

American research² has shown that the virus can be recovered from house-flies and blow-flies trapped in urban and rural areas during poliomyelitis outbreaks. Food contaminated by such flies was found to produce the disease when fed to chimpanzees.³ The flies almost certainly acquire the virus from the stools of poliomyelitis patients or carriers. The virus has been recovered from the stools of a child 123 days after an abortive attack,⁴ though three weeks appears to be the average time of persistence.⁵ Such an experienced researcher as Sabin⁶ inclines to the view that flies are a more important vector than droplets during poliomyelitis epidemics.

One objection to applying the fly-carrier theory to the present epidemic is the apparent lack of opportunity for flies to settle on infected stools. Though the virus has been detected in

sewage,⁷ the dilutions involved would seem to be too great for sewage farms and rivers to be important centres of virus pick-up. Earth closets are obvious sources, but they are mainly restricted to rural areas, and most of the cases are reported from towns.

There is, however, one persistent source of fresh human stools, open to visitation by flies, embracing every town. I refer to our vast network of railway lines. Because of the primitive sanitation on our trains and the large number of apparently healthy people who may be poliomyelitis carriers, railway tracks may be an important source of the virus. From it flies may contaminate food in near-by warehouses, restaurants, and homes. This might account for the widely scattered outbreaks of the disease and the speed with which it travels both here and in America.

The fact that few cases are reported from country districts, where there are earth closets as well as railway lines, does not oppose this theory. In those countries like China and the Philippine Islands,⁸ where sanitation is primitive, the native populations do not suffer from epidemics of poliomyelitis. Yet the virus is there, for British and American troops quickly acquire it and go down badly with the disease. It is also a fact that poliomyelitis is most widespread in those countries with the most efficient sanitation and that the disease has increased there progressively during the last fifty years.

All this suggests that under conditions of bad sanitation the bulk of a population somehow acquires immunity to poliomyelitis. The disease is rare in children under one year of age and it may be that they tolerate the virus. Sabin⁹ has in fact suggested that, with a widespread source of the virus and many flies, children may normally suffer a symptomless attack during their first year, acquiring immunity in the process. This would explain the comparative rarity of outbreaks in rural areas where there are still earth closets. It would explain why poliomyelitis increases in countries where improvements in sanitation reduce the chances of acquiring natural immunity. It would support my contention that raw stools on railway tracks running through towns are a menace.

It is difficult to see, since so many factors are involved, how this theory could be tested adequately. I would suggest that the possibility that it may be right should be sufficient incentive for the Government to order the fitting of properly serviced chemical toilets on trains as early as the present situation permits. Now that we have had one epidemic of poliomyelitis, American experience suggests we can expect more.—I am, etc.,

London, E.C.4.

CHAPMAN PINCHER.

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SIR,—I have read with much interest recent remarks appearing in the *B.M.J.* anent precautionary measures against the spread of poliomyelitis. The present extensive outbreak, the greatest yet experienced in this country, is naturally causing grave concern, and there is reason to believe from a study of statistics of past years that the height and extension of the infection have not yet been reached; in fact, any marked subsidence is not likely to occur until October. The widespread nature of the present epidemic calls for every effort to limit extension and to bring about its reduction as quickly and as far as possible.

While there is no doubt that the virus of the disease is largely communicated from one person to another by secretions of the oropharynx, either by direct personal contact with actively infected individuals or with healthy carriers, there is also definite evidence that the virus commonly appears for some days and even weeks in the faeces of typical and of abortive cases. The virus, which withstands drying for considerable periods, has further been demonstrated on flies and on exposed food in the homes of poliomyelitis cases. This is strongly suggestive that the infection can be disseminated in much the same manner as the enteric infections, such as paratyphoid, epidemic diarrhoea, dysentery, and typhoid. Unfortunately, owing to the nature of the virus of poliomyelitis, it is not possible as yet readily to detect contamination of food, water, fomites, etc.,

as is the case with these other infections caused by easily demonstrable micro-organisms.

Statistical evidence, however, shows so close a correspondence between the seasonal incidence of poliomyelitis and that of the enteric infections as very strongly to suggest that analogous factors operate in dissemination. For example, allowing for slight lag between time of infection and death (actual morbidity figures not being available), the incidence of deaths from enteritis presents a very remarkable correspondence with that of poliomyelitis. Taking the five years between the two wars 1924 to 1928, a period covering the mid-high epidemic poliomyelitis year 1926, and one which was comparatively little disturbed by fluctuations or geographical migrations of population, almost perfect correspondence existed in the incidence of poliomyelitis and deaths from enteritis; in fact, for the whole period I have found the coefficient of correlation to be no less than 0.95. During these years, moreover, the annual relative magnitude of the two infections also closely corresponds. In several other years an almost equally close correlation appears, the incidence commencing to rise in the same week and reaching maximum and minimum in a not very dissimilar manner. Somewhat similar though less well sustained correlations also obtain in respect of typhoid and paratyphoid fevers.

The notable fact that the initial rise of poliomyelitis and of the enteric infections almost invariably occurs at identically the same period of the year and that the gradients in the respective curves of incidence closely resemble one another throughout the remainder of the year is, I suggest, strongly indicative that, apart from climatic conditions, common disseminating factors are in operation. Moreover, the fact that the incidence of poliomyelitis has in general predominated more in rural than in urban areas is a point in itself somewhat significant.

While unquestionably attention must necessarily largely be concentrated upon the well-recognized dissemination of poliomyelitis through direct personal contact with infected cases and with carriers, I think, at all events until far more is known of the epidemiology of poliomyelitis than is at present the case, it is highly desirable that all those precautions and measures commonly carried out in respect to the prevention of the enteric infections should similarly rigidly be applied to the prevention of poliomyelitis.—I am, etc.,

Christchurch, Hants.

C. CONYERS MORRELL.

Penicillin in the Treatment of Diphtheria

SIR,—We have read with considerable interest Dr. David Long's article on "Penicillin in the Treatment of Diphtheria" (June 21, p. 884). We are glad to find that our article has roused some interest among scientific men abroad. Being a lecturer on bacteriology in a famous school he can certainly comment on our bacteriological findings. Ours was mainly a clinical study, but such bacteriological examinations as were relevant to our study were undertaken to implement our diagnosis and assess the effects of penicillin therapy.

The clinical diagnosis of all our 27 cases was beyond dispute, and the presence or absence of secondary invaders, which are mainly β -haemolytic streptococci and pneumococci in our place, would not alter it. The classification of our cases as early or otherwise was made on the gravity of the general symptoms and the size and extent of the membrane and not by the fever alone. The clinical reports, though brief, contain all the salient features. After all, brevity is essential in writing anything for journals in these days. "Patch" is the common expression for the pseudomembrane in diphtheria, and we wonder why it should not be used in clinical description. If Dr. Long would read the case reports he would find that not only did we see the disappearance of the patch from the throat but daily swab examinations were undertaken, and the dates when the throat swabs became negative were also mentioned. These swabs were cultured and reported only after a full study by the most competent bacteriologist, and we did not depend on morphological study alone as assumed by our friend. The typing could not be undertaken for non-availability of culture media at the time.

Treatment of diphtheria with penicillin alone is no doubt risky and adventurous, but one must be prepared to take some risk if he wants to cover a new field of therapeutics. Dr. Long will find in the case reported by Dr. A. D. Symons in the *Medical Officer*, 75, 224, that a fairly severe case of diphtheria was cured by him with penicillin alone without any antitoxic serum. In fact, he should rightly claim the priority in this new adventure. We are