ANEURYSM AND LEUKAEMIA

A meeting of the Medical Society of the L.C.C. Service was held at St. Mary Islington Hospital on Sept. 3. Mr. I. I. PRICE demonstrated a case of popliteal aneurysm in a man of 42 who had had treatment by extraperitoneal lumbar sympathectomy, followed a week later by excision of the aneurysm. In discussing the treatment of this case, Mr. Price remarked on the value of preliminary sympathectomy in increasing collateral circulation. He had, after excising the aneurysm, cooled the limb by the use of an electric fan, but after a few hours found that the cooling was being overdone and that the foot was becoming cyanosed. The fan was therefore discarded, with a speedy improvement of the circulation in the leg.

Dr. A. L. JACOBS considered that there was little to gain from comparing the results of popliteal ligation after gunshot wounds with an operation of election such as Mr. Price had done. He said that he could not understand how cooling the limb could have any desired effect, for while undoubtedly metabolism was reduced by cooling so also was the circulation in the smaller vessels on which the collateral circulation depended. Mr. G. C. DORLING referred to a case of aneurysm of the femoral artery in which, after operation, the affected limb was not cooled but the other limbs were warmed up. The result had been good.

Mr. PRICE discussed a case of embolism in the brachial artery of a woman of 75 upon whom he had operated under brachial-plexus block analgesia. To remove the clot the artery had had to be opened in two places, but was repaired. There was never any danger of gangrene, but the radial pulse did not return for four weeks. He asked whether other members had had experience of brachial embolism, and what happened in cases where no operation was done. He considered that the ideal treatment was embolectomy and sympathectomy. Dr. A. L. JACOBS said that he had seen six cases of embolism in the brachial artery treated without surgery and without gangrene resulting, but he thought it probably best to give a dose of papaverine and observe the result. Arteriotomy was often the best operation in that it abolished the reflex spasm in the other arteries of the limb. Mr. G. C. DORLING pointed out that there was a danger of pneumothorax in the administration of the analgesic.

Mr. J. GABE said that he had always found the collateral circulation in the upper limb ample, and referred to a case in which he had tied the innominate, subclavian, and common carotid arteries without any gangrene resulting.

Urethane for Leukaemia

Dr. T. ST. M. NORRIS demonstrated two cases of leukaemia treated with urethane. He had had them under observation for about 10 months, and, while pointing out that it was much too early to draw definite conclusions from the use of urethane, said that the results seemed to be as good as those obtained by deep x-ray therapy. The danger of agranulocytosis was always present, and it was very difficult to know when the maximum benefit had been received from urethane and to stop the use of the drug before agranulocytosis appeared.

Dr. B. GOTTLIEB said that urethane appeared to be quite useless in acute leukaemia; there might be a temporary improvement in subacute cases, but in chronic cases he had had an excellent response followed by relapse after the end of the treatment. A second course of treatment resulted in less marked improvement, and eventually the cases became resistant. However, urethane was at least as beneficial as deep x-ray treatment. He referred to a case of Hodgkin's disease in a girl of 16 who as a result of treatment with urethane now appeared perfectly well, and he suggested that it was well worth trying urethane in such cases.

Dr. G. SLOT thought the risk of agranulocytosis was very real, one of the great difficulties being that it might start at any moment without warning. With regard to the use of deep x-ray treatment for myelocytic leukaemia, he had investigated the results in a series of cases, and on comparing them with a similar series untreated found that there was no lengthening of life.

Correspondence

International Society of Surgery

TRÈS HONORÉ CONFRÈRE,

Le Comité Organisateur du XII^e Congrès de la Société Internationale de Chirurgie qui s'est tenu à Londres du 14 au 20 septembre dernier comprenait les noms de la plupart des dirigeants des grands hôpitaux d'Angleterre, d'Ecosse, et d'Irlande. Ces confrères non seulement ont comblé les chirurgiens étrangers très nombreux à Londres de prévenances, mais leur ont encore ouvert largement leurs services hospitaliers pour leur permettre de se rendre compte des progrès considérables réalisés depuis la guerre dans l'installation de vos hôpitaux et dans les techniques chirurgicales.

Au nom des quelques 700 congressistes, nous vous prions de transmettre à tous les chirurgiens britanniques l'expression de toute notre reconnaissance.

Veuillez agréer, très Honoré Confrère, l'assurance de nos sentiments les plus distingués.

L. MAYER,
Président.

L. DEJARDIN,
Secrétaire-Général.

Acute Porphyria

SIR,—We have read with particular interest the letter on this subject by Dr. Leo Rau (Sept. 13, p. 433), since many of his observations are of the greatest significance to our conceptions of the disease. The isolation of uroporphyrin from cases of any of the diseases cited by Dr. Rau—viz., meningitis, encephalitis, meningo-encephalitis, generalized herpes zoster, disseminated sclerosis, poliomyelitis, and subacute combined degeneration—is of such fundamental importance that we hope that Dr. Rau will publish his findings in greater detail as soon as possible. That coproporphyrinuria—i.e., an increase above the normal in the quantity of coproporphyrin isomers I and III excreted daily in the urine—may occur in a variety of pathological conditions including lead poisoning and hepatic diseases is well known. The appearance of uroporphyrin, however, is much rarer. In fact, indisputable evidence for the presence of uroporphyrin in the urine has only been forthcoming in the conditions of congenital porphyria (mainly isomer I, some isomer III) and acute porphyria (mainly isomer III). If Dr. Rau's claim can be substantiated, clearly our present viewpoint must be reconsidered. We very much hope that when Dr. Rau presents his findings in detail he will indicate whether the observed excretions were of type I or type III porphyrins.

We cannot, however, agree that porphyrin must be neurotoxic, since Klüber¹ has claimed that the normal central nervous system contains numerous microscopical granules which exhibit a red fluorescence in ultra-violet light and which possess some of the properties of porphyrins. The excretion of porphyrins in degenerative diseases of the central nervous system might equally well be the result of the degeneration rather than that the degeneration should be a result of the formation of porphyrins.

Lastly, we are surprised that Dr. Rau finds an excretion of uroporphyrin or an excessive excretion of coproporphyrin in the faeces in haemorrhage from the gut, as we should have expected any such excess of porphyrin to be limited to protoporphyrin and its near derivatives, mesoporphyrin and deuteroporphyrin.—We are, etc.,

C. RIMINGTON.
CHARLES H. GRAY.

London.

REFERENCE

Klüber, H. (1944). *Science*, 99, 482.

Sudden Death after Intravenous Injection

SIR,—I was interested by Dr. A. G. Oettlé's article (Oct. 4, p. 530), as I had a sudden death from this cause some years ago. The patient was a man of 83 who had auricular fibrillation and congestive heart failure. He was fully digitalized, and I gave him one dose of "salyrgan" intramuscularly, but it acted very slowly and the diuresis kept him awake all night. So two

days later I gave him a dose intravenously. Shortly after the needle had been withdrawn his breathing became stertorous, and he died very quickly.

Another patient to whom I gave a great many intravenous injections of salyrgan died suddenly on hearing an air raid warning. I mention this to show that there is an element of chance in these cases, and possibly the minute shock of the injection may be the real cause. At one time I thought that venipuncture might cause more shock than one ordinarily credits, and to test it I became a blood donor; but I never noticed the slightest effect myself.

Sudden death can occur from injections of a more simple kind. In 1942 I was called to see a man of 40 who had severe substernal pain of a few hours' duration, which I diagnosed as coronary thrombosis. I decided to give morphine and had to wait several minutes for some water to be boiled, during which I talked to the patient. I then gave him 1/3 gr. (22 mg.) of morphine subcutaneously, but "as I plucked my cursed steel away" his breathing became stertorous, and he died in a few minutes. There was not time for the drug to have acted, even if it had been given intravenously. Was it the slight shock of the injection added to the already desperate condition of the heart, or was death at that moment pure chance? It did not seem so to his wife, who was present all the time.—I am, etc.,

Norwich.

FREWEN MOOR.

Poliomyelitis

SIR.—Mr. Chapman Pincher (Sept. 6, p. 396) states: "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." One aspect of our investigation into the spread of poliomyelitis at the Hospital for Sick Children, Toronto, Canada, has been a study of the conditions that exist in the homes, and especially in homes remote from large centres. At the beginning of our field work this year we were getting cases from small isolated rural centres. In the field studies in these places our most isolated cases were in close proximity to railway tracks, often a very short distance, a matter of yards, from the railway tracks.

In a spot map the bulk of cases in the first group reported from the Province of Ontario were distributed along railway lines or along main routes of travel. One very suggestive study was in a farmhouse where there were seven people in the family. Two children developed poliomyelitis; one died with the bulbar type. None of the others in the family had been ill or had differed in their eating or visiting habits over the preceding month from the two children with poliomyelitis, except that within the incubation period of the disease the two children had eaten wild strawberries along the railway track, which easily could have been directly contaminated from the train or by flies.

This observation of the proximity to railways in our early rural series certainly makes us believe that such possible source of virus should be seriously considered and attempts made to confirm or disprove the possibility that this may be a very real source of dissemination of the poliomyelitis virus. Our observation may be possibly interpreted on the basis of chance, but in view of our experiences it would be interesting to know whether other medical men have made similar observations respecting the localization of cases in the vicinity of railway communications. We are fully appreciative of the limitations of the observations we have made, and our investigations are still in course of progress. But in view of Mr. Pincher's letter we thought it might be of interest to record these observations.—I am, etc.,

Toronto, Canada.

NELLES SILVERTHORNE.

SIR.—Dr. John Mills's letter (Sept. 27, p. 507) on the use of "prostigmin" in cases of poliomyelitis suffering from paralytic ileus is a reminder that disturbances of the autonomic nervous system occur not infrequently in that disease.

It is well known that a high proportion of adult patients suffer from retention of urine, but the fact that the bladder can be made to empty by an intramuscular injection of 0.25 mg. of

carbachol seems to have been ignored. I have records of three cases in which catheterization was avoided by this means, though in one it was necessary to administer the drug twice daily for four days before normal function returned. In a fourth case with intercostal paralysis carbachol was tried, but, doubtless owing to the simultaneous administration of atropine in an attempt to keep the respiratory tract dry, it failed.

I note that the only patient whose age Dr. Mills gives was a woman of 50. It would be interesting to know whether, as in retention of urine, paralytic ileus is commoner in the higher age groups.—I am, etc.,

Bristol.

D. S. SHORT.

Spasm in Poliomyelitis

SIR.—Is it possible that controversy on the existence of spasm in poliomyelitis may arise from differing conceptions of the meaning of the word? I have been able to follow a number of cases of the disease during the present epidemic from the early stages well into convalescence. I have not observed any true spasm in the sense that affected muscles have developed a pull without voluntary action on the part of the patient. I have, however, seen many muscles which had lost their extensibility from the earliest days of the disease, and these were tender and painful, particularly on attempted passive stretching.

Apart from the erector spinae those most often affected have been the biceps, hamstrings, and calf muscles, which are notoriously prone to develop contractions. They have usually been only partly paralysed from the outset, and have regained power well, though extensibility has only been recovered by the most careful physiotherapy. In one case in which this was handicapped by seven weeks in a respirator shortening of the biceps remains after 4½ months, though their power is sufficient to flex the elbows against gravity and some resistance.—I am, etc.,

Luton, Beds.

H. B. LEE.

Treatment of Varicose Veins

SIR.—My friend Mr. W. D. Park's reference to me (Oct. 4, p. 547) is my excuse for attempting rather late to enter this discussion. He has perhaps too sparingly reported me and so missed my point, which is that varicose veins thrombosed apparently solidly and hard by sclerosants seldom fail to be recanalized completely even after many months. I have removed by biopsy a short length of varicose vein, to sight and touch a hard cord, ten months after sclerosant injection, and found it only partly occluded by thrombus and with blood flowing through it. The thrombus firmly adherent to one side of the vein would, presumably, have been digested in due time, and the varicosity become plainly "recurrent." If "injected" cases, with or without concurrent or subsequent ligation, had been followed up for periods over ten months, "injections," however little harmful, would long ago have been abandoned as useless.

I submit that attention has been wrongly fixed on "thrombosis"—an incidental concomitant of the phlebitis and periphlebitis. In a series of biopsies I observed that recanalization always occurred unless the vein wall became necrosed, and with necrosis the injected vein was soft, not hard. The vein cannot be permanently occluded by firm hard clot undergoing a complete fibrosis, converting the vein into some sort of solid cord to be slowly absorbed. "Sclerosing" injection fails to obliterate the vein. These biopsies revealed that phlebitis and periphlebitis must be severe and extensive enough to destroy the vein's nutrient vessels. "Necrosing" injection will obliterate the vein, in the end without trace, by causing its death *in situ*. This necrosis in severity, extent, and possible harmfulness is not within the injector's control (while a scalpel is).

Many patients have varicose veins on both legs. This opportunity to try a different method (there have been more than one of fair surgical repute) on each leg in the same man, a perfect control, was seized. My cases at this hospital have been nearly all seamen, who were medically examined before signing on for each voyage, recurrences of varicose veins being sent back to hospital. My follow-up has therefore been adequate. Several years' observation made it clear that the least unsatisfactory method (none in my hands was 100% satisfactory) and the one with fewest recurrences, and of which the men made no complaints on score of pain, discomfort, loss of voyage and wages, was the rather slowly arrived-at method of multiple resections—