

not only the incidence of the immediate mortality (investigation of this has provided sufficient material for some papers already published) and the almost immediate morbidity (investigations sufficient for all other articles published so far), but it must also include investigations of the quite possible remote psychic affects causing various behaviour changes. Dr. Aserman is batting on a good wicket, as he is able to say that the results of anoxia "may possibly have been masked by surgical trauma." The surgeon also seems to be in an enviable position. But it seems somewhat unscientific that a brilliant operation may have been ruined by the anaesthetist or a brilliant anaesthetic may have been ruined by the surgeon and no one is quite sure of the real answer.

No doubt controlled hypotension has its place in surgery, and it would seem that in intracranial surgery its immediate advantages considerably outweigh its immediate dangers, but let us hope that somewhere someone is really investigating the very possible and quite likely horrific remote consequences of the cerebral anoxia caused by this technique.—I am, etc.,

Chesterfield.

H. E. POOLER.

SIR,—I have some experience of arteriotomy for hypotension in neurosurgery, and was therefore particularly interested to read Dr. David Aserman's article (*Journal*, May 2, p. 961) on the use of hexamethonium and procaine amide in this field.

Dr. Aserman mentions that during an operation for removal of a meningioma a big vessel was accidentally opened and a profuse and rapid loss of blood resulted. The condition of the patient was fairly satisfactorily maintained by rapid replacement of blood and levelling of the table. I have had a similar experience during arteriotomy, when severe haemorrhage accompanied the fractional removal of a meningioma in an otherwise bloodless field. Control of the blood pressure was easily retained by intra-arterial transfusion of the blood already removed from the patient, followed by stored blood. It seems probable in this type of case that permanent loss of blood pressure control may follow haemorrhage during methonium hypotension, in spite of a faultless technique; whereas the ease with which intra-arterial transfusion can be performed in arteriotomy is a safeguard, and surely one of the great advantages of this method. Is it Dr. Aserman's view that in the "failures" he mentions bleeding is more severe than if the methonium drugs had not been used?

Unless the "convenience" of the surgeon is regarded as an indication for hypotension, the technique is only occasionally required, for in the majority of neurosurgical cases cerebral congestion can be avoided by strict attention to the essentials of this branch of anaesthesia—a perfect airway, adequate spontaneous respiration, and correct posture.—I am, etc.,

London, E.C.1.

ROBERT I. W. BALLANTINE.

Modification of the Foley Catheter

SIR,—Mr. Paul Houghton (*Journal*, May 2, p. 994) may be interested to know that the three-way Foley catheter, for which he makes a plea in the final paragraph of his letter, already exists as Alcock's modification of the Foley catheter, and is marketed by William Warne & Co., Ltd.—I am, etc.,

Barnet.

V. J. DOWNIE.

Endemic Goitre

SIR,—Repetition does not make a statement true. Sir Charles Harington's quotation from a memorandum of the Medical Research Council and Kimball's retelling of the results of the Akron experiment referred to in your annotation (*Journal*, March 21, p. 665) do not nullify the criticisms of both of these that have been made by me and by others.¹ The facts are as follows.

Goitre has never been produced by simple deprivation of iodine: whenever purified foodstuffs were used, with the greatest possible exclusion of iodine, no goitre was pro-

duced.²⁻³ The postulated differences in the content of iodine in soils, water, and food between goitrous and non-goitrous regions have not been established. Noteworthy exceptions are to be found in South Africa⁴ and in Danzig.⁵ (Several authors have listed Danzig as goitre-poor, whereas it was precisely the high incidence of goitre in iodine-rich Danzig that led Liek to deny the "iodine-lack" hypothesis in the very paper from which his data have been erroneously copied.) Diminutions in the incidence of goitre more marked than those reported by Kimball, without any known change in iodine intake and without any reason for supposing that there had been any, have been reported.^{6,7,8,9} In many places there was complete disappearance of goitre, with, in some, reappearance after a lapse of 50 years or more. Epidemics of goitre have been observed repeatedly, and are still being reported.^{10,11} Goitre was not reported in England until the eighteenth century and in the Americas and in New Zealand until after the coming of white men, and in most of Africa, including Egypt, until quite recently.^{6,12} The information regarding all of these is sufficiently extensive to enable us to conclude that goitre was unreported because it was absent.

Anyone who studies the history of goitre with an open mind will, I believe, come to the conclusion that the disease is due to a biological agent, and that such prophylactic or curative effect as iodine may have is due to a pharmacological action and not to its making good a nutritional deficiency.—I am, etc.,

New York.

ISIDOR GREENWALD.

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Nicotinic-acid Deficiency

SIR,—I am greatly interested in Dr. Jonathan Gould's letter (*Journal*, April 25, p. 935), which followed Dr. G. H. Collins's case note (*Journal*, March 28, p. 731), and welcome the broader application of the use of vitamins in confusional states, a therapy used successfully since 1939.¹

Everyone will agree with Dr. Gould that the parenteral use of nicotinamide is to be preferred to nicotinic acid, not only because it is not associated with the unpleasant vasodilator effects of the latter, but also because of its quicker action. I am also in complete agreement with him that deficiency of one single member of the B group of vitamins is improbable even if the symptoms and signs are highly suggestive of nicotinic acid or another single vitamin deficiency. I find, however, some difficulty in accepting Dr. Gould's "mixed barrage of vitamins" and also in considering the vitamins "as metabolic reagents having metabolic cycles of their own."

Dr. Gould was most successful in using intravenously 1,000 mg. aneurin (better thiamin), 200 mg. nicotinamide, 200 mg. pyridoxin, and 1,500 mg. ascorbic acid in 10% dextrose solution, but it is interesting that Dr. V. P. Wordsworth (p. 935) had in a case of an admittedly mild alcoholic intoxication dramatic results within three minutes after intravenous use of only 100 mg. pyridoxin. Moreover, intravenous application of only 30 mg. of thiamin in a case of Wernicke's encephalopathy was found to be sufficient for the patient to regain consciousness and to abolish temporarily most of the neurological signs.² While intravenous application of high doses of vitamins are certainly advisable in severe cases at first, the continuation of the treatment by intramuscular route is not only more efficient owing to the slow excretion but also less fraught with danger.

It is to be expected that in the near future the advocated "mixed barrage of vitamins" will be used on a large scale in psychiatric practice. Whilst I would welcome this step, I may perhaps be allowed to make two comments. First,