In a recent survey of 890 Maltese skulls I came across four atlanto-paramastoid articulations, one complete synostosis of the atlanto-paramastoid joint, and one skull (see Fig.) which showed a right paramastoid process partially fused with but still distinct from the transverse process of the atlas, and a left one in complete synostosis with the atlantal transverse process.

Atlanto-paramastoid articulations and synostoses, though relatively rare, may be the cause of mechanical torticollis with chronic pain in the neck and limitation of movement, particularly of nodding of the head at the atlanto-occipital joints.—I am, etc.,

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Psychiatry Courses for G.P.s

SIR,—Dr. R. I. Muir (26 July, p. 241) must be misinformed. The Oxford Institute of Psychiatry has no connexion with the University of Oxford, with the Oxford Regional Hospital Board, or indeed with any other professional body, and its name has perhaps misled him. It is the title under which Dr. R. R. Tilheard-Cole, an able and energetic man and a good teacher, has for several years organized privately a series of fee-paying courses in neuro-anatomy and psychiatry. If any of these courses are stopping it can hardly be for the reason Dr. Muir advances, since the institute is quite independent, and in any case a good deal is already done in this region to encourage general-practitioner interest in and knowledge of psychiatry. Under the guidance and financial aid of the university's committee for postgraduate medical studies free courses of lectures and opportunities for practical instruction are offered, and more is being actively planned in conjunction with representatives of the Royal College of General Practitioners.

My own hospital (which I think is typical of the Oxford region) welcomes general practitioners to its case conferences and special lectures, and in addition offers posts as salaried clinical assistants for one or two sessions per week to do outpatient work under guidance. There are also opportunities for training in inpatient work. Perhaps with so much now available free there is less demand for tuition for which one has to pay.—I am, etc.,

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SIR,—I was startled by the letter from Dr. R. I. Muir (26 July, p. 241) in which he reports that the Oxford Institute of Psychiatry is in danger of having its refresher courses for general practitioners stopped on the grounds that psychiatry is a specialized knowledge and not in the province of the general practitioner. Dr. Muir does not state who is intending to stop these courses, but whoever the authority it is apparent it is out of touch with current medical practice.

In this general practice it is the exception to refer cases for psychiatric specialist outpatient consultation. Recourse to specialist opinion is made only if the patient requires hospitalization except in a very small number of cases. If all general practitioners accepted the statement that psychiatry was not in his province the psychiatric outpatient departments would be swamped by a deluge of thousands of cases at present being treated successfully by their own family doctor.

I have not attended the institute at Oxford, but earlier this year I attended a course in psychiatry for general practitioners at St. George's and St. Thomas's Hospitals. From the practice viewpoint it was quite the most valuable course I have attended since entering general practice 16 years ago. More courses in psychiatry for general practitioners should be organized. For anyone to suggest that there should be fewer indicates complete ignorance of the facts.—I am, etc.,

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Disturbed Subnormal Patients

SIR,—I was pleased to see in the report (*Supplement*, 5 July, p. 2) of the General Medical Services Committee on "Overcrowded Mental Hospitals" that the Department of Health and Social Security point out that "mental hospitals should be willing to admit disturbed subnormal patients."

These patients are often a great problem in hospitals for the mentally subnormal, which do not have the accommodation, the staff, or equipment to care for them adequately.—I am, etc.,

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Anorexia Nervosa and Chronic Alcoholism

SIR,—Wallace *et al.*¹ and Wolff *et al.*² recently described cases of metabolic alkalosis associated with severe hypokalaemia due to various combinations of anorexia nervosa, vomiting, self-administration of oral diuretics and purgatives. The following case is of interest as the main symptom of vomiting

due to anorexia nervosa was complicated by chronic alcoholism.

The patient was a woman, 43 years old, who lived with her husband and two children. She had been admitted to different hospitals on several occasions over the preceding 10 years for the treatment of anorexia nervosa. At the age of 18 when she weighed about 9 stones (60 kg.) she developed the habit of vomiting after meals in order to avoid gaining weight because of the fear of becoming obese. In spite of weighing only 7 stones (45 kg.) when she married at the age of 27 her habit of vomiting after food continued. As a teenager she lived with her parents in Barbados and was a heavy social drinker. Her father died when she was 30, and at that time, following a difficult second pregnancy, she developed a depressive illness with associated overindulgence in alcohol with subsequent addiction and consumption of up to half a bottle of spirits daily for prolonged periods. Menstruation ceased at the age of 38, although for several years previously the periods had been scanty and irregular.

On three different occasions over a nine months' period in 1968 she required admission to hospital with symptoms of extreme weakness, vomiting, loss of appetite, and on one occasion tetanic spasms of her hands which were not associated with hyperventilation. The clinical signs showed a similar pattern during each admission: she looked pale and cachectic and was markedly dehydrated and lethargic. Blood pressure was 80/60 mm. Hg, with normal heart rate. There was generalized muscle weakness in the limbs with hypotonia, the tendon reflexes were sluggish but symmetrical, all forms of sensory examination were intact. Routine blood examination was normal.

Serum electrolytes and blood acid-base status before and after treatment during each of the three admissions are summarized in the Table.

Treatment consisted of intravenous infusions of saline and dextrose with potassium supplements, and a potent multivitamin preparation. During each admission initial treatment was instituted without resistance by the patient, with rapid improvement in three to four days. However, as her general condition improved she became increasingly uncooperative with regard to both medical and psychiatric management.

The main causes of potassium deficiency in patients with vomiting are usually considered to be reduced potassium intake^{3,4} and loss of gastric juice.⁵

The case is reported because it is likely that this type of metabolic disturbance is more common than is generally recognized, and misdiagnosis due to lack of co-operation by the patient resulted in inappropriate surgery in one of the two patients reported by Wallace *et al.*¹—I am, etc.,

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Blood Acid-base Status

	Urea	Na	K	Cl	HCO ₃	pH	PCO ₂	Base excess	Buffer base	Standard bicarbonate
24/4/68	54	132	1.5	46	46	7.54	77	+25	85	52
29/4/68	25	132	2.4	87	31	7.5	43.5	+9	61	32
29/11/68	112	125	2.0	42	56	7.56	67	> +20	80	51
4/12/68	25	131	5.1	100	23.5	7.42	40	+1	45	25
18/12/68	55	110	1.6	41	50.6	7.57	45	+14	73	37.5
23/12/68	23	134	3.0	84	37	7.43	57.5	+12.5	56	35