three weeks' history of pain and swelling in the epigastrium, dysphagia, anorexia, and loss of weight. His liver surface was palpable and unevenly nodular. Investigations showed serum bilirubin 4·3 mg/100 ml, alkaline phosphatase 1170 I.U., aspartate transaminase 192 I.U., total serum protein 6·3 g/100 ml, albumin 3·3 g/100 ml. A liver scan, using radioactive technetium (^{99}TC), showed many cold areas throughout the organ. The patient's serum gave a positive reaction for alpha-fetoprotein using crossed immunoelectrophoresis. This reaction was confirmed using three different commercial sources of antisera. Postmortem examination showed a poorly-differentiated adenocarcinoma of the cardia of the stomach. Metastases were present in the lymph nodes along the lesser curvature of the stomach and in both left and right lobes of the grossly enlarged liver (4450 g). The hepatic tissue, though distorted by the metastases, retained its lobular architecture and gave no indication of cirrhosis or hepatoma. No testicular or extragonadal teratoma was found.

This case emphasizes that the presence of circulating alpha-fetoprotein can no longer be regarded as diagnostic of hepatocellular carcinoma. A recent report by Gitlin[4] may indicate the histogenetic connexion between tumours of the liver, gonads, and stomach. He found that synthesis of alpha-fetoprotein occurs not only in human fetal liver but also in human yolk sac and the human embryonic and fetal gastrointestinal tract. Clearly this raises the possibility that gastric tumours may share the resumption of embryonic potential that is shown by hepatomas. Furthermore, it is possible that the functional elements in teratomas may be hepatic, gastrointestinal, or possibly endodermal sinus tumour, which Teilum[5] has postulated to be analogous with yolk sac.

So far as we know there has been no study to show how common is the association between alpha-fetoprotein and carcinoma of the stomach. This merits further investigation.

We are grateful to Dr. D. J. Galton for permission to report the clinical details of this case and to Dr. J. C. E. Fenton for his help in the laboratory estimations.

—We are, etc.,

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Footballer's Migraine

SIR,—We were interested in Professor W. B. Matthews's description of this syndrome (6 May, p. 326). This seems to explain the similar features of the following case which we found puzzling when the patient consulted us in 1965.

A part-time professional footballer aged 22 complained of disturbances of vision, frequently precipitated by heading a ball. The first episode had occurred in 1959 when he went to head a ball but hit his head against an opponent. He fell to the ground, dazed but not knocked out, and was attended to by the trainer. Almost immediately he noticed flashes of light and speckles, shimmering like the after-effects of looking at a bright light, affecting both eyes, and this lasted for about 30 minutes. During this time he could not focus properly or see to either side, and this was followed by bifrontal and vertical throbbing headache for 2-3 hours, without sickness. He played football again about two weeks later, headed the ball, and had no further attacks until some months later. The same visual disturbance, usually followed by headache, would then recur about twice a year, sometimes but not invariably related to heading a ball, especially if it was wet and heavy.

On examination he appeared healthy and there were no abnormal signs. Ophthalmic examination showed no appreciable refractive error or other ocular cause to account for his symptoms. *X*-rays of his skull, cervical spine, and chest were normal. It was considered that more elaborate investigations were not necessary, and that the best advice for him was to avoid heading a football.

When his condition was reviewed he was still playing football, but now as an amateur. He said that he was able to head the ball without any ill effects from a deliberate frontal impact, and although an accidental glancing blow could daze him momentarily this did not reproduce his former symptoms.

Professor Matthews wondered whether an isolated attack of classical migraine in young boys following a blow on the head at football was the forerunner of ordinary migraine or confined to minor injuries in football. In our case, the first attack was precipitated by his head injury, and subsequent attacks followed heading the ball although some occurred without such provocation, and he did not have to give up the game.—We are, etc.,

MICHAEL L. E. ESPIR
Nottingham

I. L. D. HODGE
P. H. N. MATTHEWS
Leicester

Gallows Traction

SIR,—In his contribution on the subject of gallows traction in the home, Mr. H. D. W. Powell (8 July, p. 108) has unfortunately omitted two important facts: when does he regard children as being too old (or too heavy) for this method, and what was the height of the frame that had the approval of the ambulancemen?—I am, etc.,

P. S. LONDON

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Anaesthesia by Acupuncture

SIR,—We were members of a party of ten British doctors who visited the mainland of China at our own expense between 19 March and 3 April. We visited hospitals, health centres, factories, and communes in Shanghai, Canton, Peking, Nanking, Wusih, and their neighbourhoods.

We were greatly impressed with the standard of medical care, but above all, we were astounded by the use of acupuncture anaesthesia in major surgery. As examples, we saw among others the following operations performed under acupuncture anaesthesia. In all cases the patients were conscious, fully co-operative, and appeared to suffer no pain. Their pulse and blood pressure remained normal throughout. Some patients received a very small dose of phenobarbitone or pethidine, if at all apprehensive, but many had no premedication. Alternative methods of anaesthesia were available, but not used.

In Canton, at the Sun Yat-sen Memorial Hospital, we saw an operation for a cerebral tumour, and another for a large ovarian cyst. In Peking, at the Maternity Hospital, we saw a caesarian section. This patient had had no premedication or previous experience of treatment by acupuncture. Eight needles were inserted into the abdominal wall and thighs, and were vibrated by a small electrical current. During the 30-minute operation the patient showed delight when shown her baby boy immediately on delivery. We spoke to her (with her husband and daughter) within 15 minutes and she showed no signs of stress at all.

In Nanking, at the General (Drum Tower) Hospital, we saw a Caldwell-Luc operation, and pneumonectomy. In the latter case, anaesthesia was induced and maintained by manual vibration of only one needle inserted into the deltoid muscle.

Chinese anaesthetists started using this method in about 1958, at first for minor operations. Today, with much experience behind them, acupuncture is used extensively. It is claimed that over 400 pneumonectomies have been performed successfully under acupuncture at the Peking Tuberculosis Research Institute alone. They do not claim to understand or explain the phenomenon yet.

Considering the great advantages to the patient and surgeon, should not this method be investigated fully in Britain? However, it is important to warn readers that acupuncture for anaesthesia must not be confused with its possible use and abuse for treating all and sundry medical conditions.—We are, etc.,

SIDNEY HAMILTON
PERCY BROWN
MARY HOLLINGTON
KATHLEEN RUTHERFORD

Thornton Heath,
Surrey

Nitrazepam in Chronic Obstructive Bronchitis

SIR,—I have found similar worsening of respiratory failure with nitrazepam (17 June, p. 688) in five patients already in respiratory failure. Nitrazepam was given as 5-10 mg by mouth at night as sedation. Three of the five patients were in coma next day and the remaining two were reaching that stage. The mean capillary P_{CO_2} (Astrupp) rose from 53 mm Hg to 79 mm Hg. All five were successfully resuscitated.

As Dr. J. Gaddie and others remark, no other sedative or tranquillizing drug is completely safe in these patients. My own preference is for promethazine hydrochloride (Phenergan) 25-50 mg, which seems to cause less respiratory depression.—I am, etc.,

A. PINES

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