- ⁴ Fazio, A. F., *Journal of Abnormal Psychology*, 1970, **76**, 211.
⁵ Baum, M., *Canadian Journal of Psychology*, 1969, **23**, 1.
⁶ Hussain, M. Z., *Canadian Medical Association Journal*, 1970, **103**, 768.
⁷ Hussain, M. Z., *American Journal of Psychiatry*, 1971, in press.

Alopecia and Levodopa

SIR,—The side effects of levodopa administration are well known (30 January, p. 267). We report here two cases in which alopecia developed during treatment with levodopa.

A 54-year-old woman with idiopathic Parkinson's disease of long standing was treated in November, 1970 with levodopa. The dose was increased to 3 g daily over the next month, with considerable improvement, but after a further three weeks she developed choreiform movements, mental agitation, and severe flushing of the face and neck. On stopping treatment these side-effects disappeared within three days. Levodopa was then given in a dose of 1 g daily with clinical improvement. Now, however, three months after first taking levodopa, she developed a severe diffuse alopecia. No other cause for this was found. Haemoglobin, leucocyte count, and blood film were normal and serum thyroxine iodine was 5.8 mg/100 ml with a free thyroxine index of 6.4.

The second patient was a 63-year-old woman with a 20-year history of idiopathic Parkinson's disease. In November 1970 she was treated with levodopa with considerable benefit. The dose was gradually increased to 2.5 g daily and maintained at this level when she complained of mild nausea. Six weeks after starting this treatment she complained of hair loss and moderately severe diffuse alopecia was confirmed. Again there was no apparent cause for the alopecia. She had no clinical evidence of hypothyroidism, and serum thyroxine iodine was 5.5 mg/100 ml with a free thyroxine index of 6.8. Haemoglobin, leucocyte count, and blood film were normal.

Both patients preferred to continue with levodopa although it was explained that their hair loss might be associated with this treatment. In both cases the partial alopecia persists.

Between them these cases demonstrated the well-known side effects of nausea, mental agitation, and involuntary choreiform movements. As far as we know severe flushing of the face and alopecia have not been described with levodopa administration. These symptoms may be no more than coincidental to the treatment, but we would be interested to know if a similar phenomenon has been noted by others.—We are, etc.,

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Amino-acids in Fetal Fluids

SIR,—I read with interest the paper by Dr. F. Cockburn and others (26 September, p. 747). Several comments might be made. The techniques of collection, storage, and speed of quantitation are such that their data are above question. However, their final conclusion that "Inborn errors which result in altered fetal urinary amino-acid excretion might thus be identified in utero" is quite doubtful. If the offending amino-acids are metabolizable by the mother fetal homeo-

stasis will be maintained, and it is highly unlikely that amniotic fluid will reflect any aberration. Our data from paired amniotic fluid and fetal urine at term suggest that very little of the amino-acid composition of amniotic fluid is derived from urine and in an affected fetus the branched chain amino-acid concentrations of amniotic fluid from a patient with proved maple syrup urine disease were normal.¹

The reason that I raise this point is to caution clinicians who are diagnosing potential amino-acid defects prenatally. Other methods of prenatal diagnosis such as direct enzyme analysis, quantitation of a non-metabolizable product, or analysis of cultured cells has been proved of value. By looking at amniotic fluid amino-acid concentration false negative results will be given to mothers at a time when termination of pregnancy could be accomplished if that particular course of therapy was desired.—I am, etc.,

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- ¹ O'Neill, R. T., Morrow, G., Hammel, D., Auerbach, V. H., and Barness, L. A., *Obstetrics and Gynecology*, in press.

Laparoscopy Hazard

SIR,—With reference to the laparoscopy hazard reported by Mr. Humphrey Arthure (21 November, p. 492), I should like to make a few comments.

Laparoscopy is an extremely safe procedure, and if the methods used for creation of the pneumoperitoneum are simple there is no risk of cardiac arrest, air emboli, or shock from "impaired respiration or circulation". I follow the simple method of air insufflation with a blood-pressure bulb, and stop when the abdomen is distended sufficiently for the creation of a space between the viscera and anterior-peritoneum or when the patient complains of discomfort. We have never found it necessary to use more complicated methods or manometers, and the only complication that we have found related to the pneumoperitoneum is on decompression following evacuation of large amounts of ascitic fluid—owing to dilatation of the mesenteric plexus and hypotension. This can be avoided by a tight binder and incomplete evacuation of liquid and air.

Laparoscopy is an extraordinarily useful procedure as well as a very safe, painless, and economical endoscopic method. By keeping it simple as it has been since Ruddock's instrument became available more than 35 years ago¹ it will continue to serve its purposes faithfully and safely.²—I am, etc.,

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- ¹ Ruddock, J. C., *Western Journal of Surgery, Obstetrics and Gynecology*, 1934, **42**, 392.
² Herrera-Llerandi, R., *British Medical Journal*, 1961, **2**, 661.

General Practitioners and Medical Television

SIR,—It is disappointing to find that Dr. C. M. Fletcher and Dr. R. Ll. Meyrick (13 March, p. 607) regard the content and conclusions of our paper "General Practitioners and Medical Television" (13 February, p. 392) as destructive criticism of this form of post-

graduate education. This was certainly not our intention as careful scrutiny of our results would have revealed.

In comparison with previous biased studies our (validated) random sample contained a very high proportion of regular viewers who appreciated the topics dealt with in the programmes and their relevance to general practice. We intentionally did not differentiate between Independent Television and the B.B.C. except so far as advance publicity was concerned. Drs. Fletcher and Meyrick have misread our findings in this section. We said that 67% of our sample knew of I.T.V. programmes only, 4% of B.B.C. only, but 26% of both—a total of 30% for the B.B.C.

Rather than ignoring other forms of post-graduate experience one of our major objectives was to relate individual patterns of more conventional education to medical televising. Our results show that the enthusiastic televiewer is likely to be equally enthusiastic about clinical assistantships, medical journals, refresher courses, and other forms of continuing education.

An obvious conclusion, therefore, is that medical television reaches those doctors already stimulated in other ways, and we suggested that programmes aimed at groups meeting in postgraduate centres might be more effective than when the solitary doctor at home is the target. We are delighted that 30 of these groups report regularly to A.S.M.E. but they cannot be regarded as unbiased for this very reason. Equally we are intrigued by the certainty of your correspondents' belief in the existence of groups of which they have not yet heard. (Is this statistically significant?)

Our ultimate question was whether available television time was being put to the most effective use. We proposed a national or regional curriculum of short provocative programmes directed towards doctors in postgraduate centres, and, in addition, because health education of the public might be more profitable, more programmes on smoking, obesity, accidents, exercise, and so on aimed at the patient rather than the profession.—We are, etc.,

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Heel Cushion on the Operating Table

SIR,—It may be as Dr. A. J. Jouhar suggests (23 January, p. 229) that the value of heel cushions in preventing thrombosis has not been proved statistically beyond all reasonable doubt, but I believe there is such strong evidence in favour of them that their use is essential. Many years ago, before the last war, I think, the late Professor Lambert Rogers advised the raising of the calf off the table by something under the heel, and since adopting the practice at that time, I have had no deaths from pulmonary embolism after abdominal surgery. I have tried to teach that the most important part of a gynaecological operation is the preventing of pressure on the calves and soles.

There is no need for a special pad which may be bulky and possibly expensive. Either a small flat sandbag or the Langton Hewer