

unsuccessful. I succeeded, however, in producing porphyrin by cultivation of lingual scrapings in blood broth. The following procedure was applied: 5 ml. of broth (contained in test-tubes sealed with cotton-wool) to which a few drops of defibrinated blood were added was inoculated with a loopful of material from lingual scrapings, and the test-tubes were kept in an incubator (37° C.) for a few days. The method of extracting porphyrin was that described by Kämmerer<sup>2</sup> with slight modification. Red fluorescent substance, which on spectroscopic examination proved to be porphyrin, could be demonstrated in a considerable number of cases. Some vitamins (B<sub>12</sub>, thiamin, folic acid) added to the cultures increased the porphyrin production, while other members of the vitamin B group seemed to have no effect. I was unable, however, to isolate from the cultures containing a variety of bacteria the micro-organism responsible for the porphyrin production. It may be that the breaking down of haemoglobin and the porphyrin production require the combined action of a number of different types of bacteria. The result was not always positive in cases with fluorescent tongue. On the other hand, the result was often positive in cases without lingual fluorescence. This suggests strongly that the porphyrin responsible for the fluorescence of the tongue is not due to the bacterial decomposition of blood, but probably to bacterial synthesis. It is possible that the fluorescence seen sometimes in decayed teeth may be of haemogenic origin, especially when there is frequent bleeding from the gums. The experiments indicate that in the oral cavity there are usually bacteria which have the ability in certain conditions to produce porphyrin through decomposition of blood. Some intestinal bacteria also have this faculty of producing porphyrin by breaking down of haemoglobin. Fluorescence found in lochial and menstrual exudates is due to the same mechanism. There seems to be no doubt as to the bacterial origin of the fluorescence, for it can be invariably abolished by the destruction of bacterial flora by locally applied antibiotics, and it returns regularly with the re-establishment of the microflora on the tongue. As to the green fluorescence observed by Squires, this could well be of bacterial origin, as other fluorescent substances beside porphyrin can be produced by bacteria—for example, *B. pyocyaneus*.—I am, etc.,

Edinburgh.

W. TOMASZEWSKI.

## REFERENCES

- <sup>1</sup> *British Medical Journal*, 1951, 1, 117.  
<sup>2</sup> *Dtsch. Arch. klin. Med.*, 1924, 145, 257.

**Toxaemia of Pregnancy**

SIR,—My friend Dr. Joan Malleson (*Journal*, November 27, p. 1288) has misunderstood in an important respect the views expressed by Dr. Katharina Dalton and myself. She suggests that we have made the "assumption that premenstrual and therefore pre-eclamptic women merely lack progesterone" and that the assumption may be an over-simplification. She continues: "Clinical evidence is available which suggests that at any rate premenstrual tension may depend more upon the presence of some *special adverse ratio of the steroid hormones to one another* than upon any simple deficiency of progesterone." But in fact this is precisely what we were at some pains to point out in our first paper on the subject.<sup>1</sup> We produced ample evidence that progesterone deficiency would *not* explain all cases; produced ourselves, very tentatively, the concept of an abnormal ratio between oestradiol and progesterone; and hinted that we considered even this to be an over-simplification.

We cannot deny the statement that premenstrual tension and like syndromes may occasionally be relieved by "diametrically opposite" measures. All we can say is that we have never seen it except after the climacteric has begun. We have often seen them made worse by oestrogens, and Singh *et al.*<sup>2</sup> actually produced premenstrual symptoms in this way. I do not think there is any special mystery about the variability of the dosages of progesterone needed. My current series of diabetics vary in their demands for insulin from zero to 450 units daily.

I find Mr. Sophian's argument a most attractive one. A year or more ago he put to me the question, "Does a woman continue to have these cyclical symptoms after hysterectomy?" I was not then quite sure of the answer, but now I am. I have several patients who have continued to suffer premenstrual symptoms after hysterectomy and one who only began to have them then. They have responded to progesterone. Therefore, in these patients, progesterone cannot be acting simply as an inhibitor of endometrial adenose. If renal ischaemia is the cause of the premenstrual syndrome, the direct effects of excessive oestradiol, reported by Franklin,<sup>3</sup> would seem to be a more likely explanation.—I am, etc.,

London, W.1.

RAYMOND GREENE.

## REFERENCES

- <sup>1</sup> *British Medical Journal*, 1953, 1, 1007.  
<sup>2</sup> *Lancet*, 1947, 1, 745.  
<sup>3</sup> Reports of International Congress of Obstetrics, Geneva, 1954, p. 819.

**Record Number of Caesarean Sections**

SIR,—Your readers may be interested in the following case. Between the years 1930 and 1948 the patient had undergone three classical and six lower segment caesarean sections for disproportion. In 1950, when she was 43, an elective tenth repeat laparotomy was performed at 38 weeks' gestation. During extraction of the foetus through the usual lower segment incision an old classical scar split upwards. After division of stout adhesions between the parietal peritoneum and the anterior wall of the upper segment the uterus was removed at the level of the lower segment incision. The abdominal wall was scarred, but adequate. The patient made a good recovery. Examination of sections of the uterus taken from the upper and lower portions showed congested and oedematous fibrous tissue with an apparent deficiency of muscle. During an obstetrical life of 20 years the patient had enjoyed good health and had survived the ministrations of four successive Masters of the Coombe Lying-in Hospital: Healy, Corbet, Keelan, and the writer. In addition to ten pregnancies terminated by section, there had been two abortions. Nine of the children were living in 1950. The patient's pelvis was rachitic flat, measuring 7.6 by 13.4 cm. radiologically at the brim. It is considered that nine caesarean sections and one caesarean hysterectomy may constitute a record.—I am, etc.,

Dublin.

J. K. FEENEY.

**"Truth Drugs"**

SIR,—Newspapers reported recently a court case in which a neurologist had allegedly stated that thiopentone plus methylamphetamine hydrochloride unfailingly elicits the truth and that "no one can resist their effect." May it be said that psychiatric practice does not confirm this. The writer has observed four modes of experience to the contrary which may interest readers.

The patient concealed *intentionally* a few particulars in the course of 10 to 15 treatments with the drug combination in question. A few weeks or months later he disclosed them, without too much hesitation, to another psychotherapist during ordinary analytical discussions. A certain patient, subjected to the two drugs 10 consecutive times, told in detail of his bitter resentment against his tyrannical father, but expressed only concern and love for his "dear, suffering wife." At a later period the procedure was repeated by a psychotherapist who happened to know closely the analytical particulars, since he had treated him years earlier for an acute obsessional condition. During this second drug treatment the patient produced most violent outbursts against his spouse, and admitted his intentional concealment of these feelings when treated by the, to him, strange psychiatrist. A patient with atypical depression received the drug combination for diagnostic purposes; and, in spite of explicit questioning, he withheld an embarrassing obsession. Later, in the course of analytical treatment by the same specialist, he was able to speak about the problem in detail when questioned again in the same direction. A patient with severe insomnia felt only "pleasant relaxation" when given the