We were interested to read the comments made by Dr. D. J. S. Hunter (27 January, p. 229) and by Drs. D. J. S. Hunter and K. C. Vaughton (2 June, p. 552) concerning placental bed retraction, especially regarding the timing of the pH fall in the second stage. We accept that placental bed retraction may well be important in the development of fetal anoxia, but whatever the cause, the result is the same, so early detection must be the main objective.

Drs. P. Donnai and A. D. G. Nicholas (27 January, p. 229) are concerned that compression of the buttock and the associated venous stasis may contribute to a falling buttock pH and, therefore, not reliably reflect the fetal condition. In our experience there is a very good correlation between the buttock pH and the subsequent fetal condition, provided a free flow of blood is obtained. As we pointed out in our paper, oedema gives a falsely high reading.

We are aware of the work of Drs. T. Wheeler and K. R. Greene (30 March, p. 802) and we have already discussed with them the relative merits of fetal blood sampling as against continuous heart monitoring. With further experience we have no reason to change our opinion that fetal blood sampling gives an earlier warning of fetal anoxia. Later and gross changes are detected by the cardiotocograph recordings, but as our aim is to expedite delivery in those infants which are found to be anoxic *early* in the second stage, we feel that fetal blood sampling is of greater value.—We are, etc.,

B. W. ELIOT
J. G. HILL

Tunbridge Wells, Kent

Metabolic Effects of Oral Contraceptives

SIR,—The report by Drs. P. G. T. Bye and M. Elstein (19 May, p. 389) on the efficacy and side-effects of a combined-type oral contraceptive containing a daily dose of 0·03 mg ethinyloestradiol appears to show no significant differences between this product and formulations containing the same amount of progestogen plus 0·05 mg ethinylestradiol. As they do not report on comparative metabolic effects, we feel our findings on the dose-related effects of oral contraceptive components on plasma proteins may be relevant.[1-3]

We have administered the two components (ethinyloestradiol and norgestrel) separately and together at various doses and measured changes in the concentrations in the plasma of proteins known to be sensitive to exogenous oestrogen. A summary of our results is given in the table. Each woman received 21 consecutive oral doses of a particular steroid formulation. Blood was collected immediately before treatment and again 21 days later. Plasma proteins were determined on each specimen. Methodological details are given elsewhere.[3]

It will be seen from the table that concentrations of each protein were not significantly different (as judged by Student's *t* test) at the 0·03 and 0·05-mg ethinyloestradiol doses in the presence or absence of norgestrel. It should be noted, however, that the presence of norgestrel has a highly significant effect ($P < 0·001$) in each case on the oestrogen-induced changes.[2]

As the clinical and biochemical effects of 0·03 mg ethinyloestradiol daily in oral contraceptives appears to be no different from those of 0·05 mg daily, it will be interesting to see from epidemiological studies whether the use of low-oestrogen oral contraceptives has any effect on the incidence of thromboembolic disease.—We are, etc.,

M. H. BRIGGS

Biochemistry Department,
Alfred Hospital,
Prahran, Victoria

MAXINE BRIGGS

Kingston Centre,
Cheltenham, Victoria,
Australia

1 Briggs, M. H., and Briggs, M., *Contraception*, 1971, 3, 381.
2 Briggs, M. H., and Briggs, M., *Life Sciences*, 1972, 11, (1) 949.
3 Briggs, M. H., and Briggs, M., *Biochemistry Pharmacology*. In press.

Effect of Oral Contraceptive Steroids on Plasma Proteins

Steroid Administered	No. of Women	Dose of Ethinyloestradiol (mg/day)	Change in Protein Concentration (% pretreatment value after 21 oral doses)		
			A	B	C
Ethinyloestradiol alone ..	11	0·05	195 ± 21	76 ± 24	70 ± 23
	9	0·03	185 ± 31	78 ± 17	71 ± 25
Ethinyloestradiol + *d* (–)-norgestrel (0·25 mg/day)	15	0·05	138 ± 38	94 ± 10	81 ± 23
Ethinyloestradiol + *d* (–)-norgestrel (0·25 mg/day)	10	0·03	130 ± 46	96 ± 13	84 ± 26

Protein A = caeruloplasmin, B = haptoglobin, C = orosomucoid.
Values given are means ± 1 S.D. *d* (–)-Norgestrel has twice the progestogenic activity of *dl*-norgestrel.

Copper Absorption from I.U.C.D.s

SIR,—While the use of an intrauterine contraceptive device in a nulligravida (Mr. D. G. Bluett, 9 June, p. 615) might be debated, we do not agree with the author's statement that "the degree of copper absorption is unknown" in women using the Gravigard copper 7 I.U.D.

Significant changes in serum levels of copper in women using copper I.U.D.s have not been detected; Hagenfeldt[1] has reported that the average loss of copper from the copper I.U.D. was 45 μg/day and that only the endometrial copper levels were elevated and these returned to normal within the first cycle following the removal of the copper I.U.D.

We have made a comparison of serum levels of copper caeruloplasmin (the main copper-carrying protein) and caeruloplasmin oxidase activity in three groups of women in their active reproductive years. Two groups of women were using I.U.D.s—a copper-releasing I.U.D. (i.e., Gravigard copper 7) or a Dalkon Shield which contains copper within its matrix as a support for the plastic but which is not released to any extent. The third group of women were taking combined oral contraceptives, either 1.0 mg norethisterone + 50 μg ethinyl oestradiol or 0.5 mg norethisterone + 50 μg ethinyl oestradiol. There was no statistically significant difference in the serum levels of copper, caeruloplasmin, and caeruloplasmin oxidase activity in those women who used the two different I.U.D.s. However, in the women taking the oral contraceptive preparations these parameters were markedly elevated, the biological significance of which remains to be elucidated.

Further studies of copper and copper-bearing proteins in the menstrual cycle and in different endocrine states and at intervals after the continued use of a copper-releasing I.U.D. are in progress.—We are, etc.,

MAX ELSTEIN
B. DAUNTER

Department of Human Reproduction and Obstetrics,
University of Southampton,
Southampton

1 Daunter, B., and Elstein, M., *Journal of Obstetrics and Gynaecology of the British Commonwealth*. In press.
2 Hagenfeldt, K., *Contraception*, 1972, 6, 191.

Contraceptives on the N.H.S.

SIR,—Perhaps some heat might be taken out of this debate if we distinguish between contraceptive equipment and contraceptive advice.

The unquestioning dishing out on demand of condoms, or pills for that matter, may or may not be an expedient social service. It is not conscientious clinical medicine. Doctors may properly resent being expected to do it, by either patient or state.

In contrast, skilful contraceptive advice-giving can be constructive whole-patient medicine indeed. It offers the opportunity to discuss the patient's attitude to sexuality and to personal relationships. It can be used to aid the stability of those relationships and thus of the family and of society. Unfortunately this is rarely part of the crowded medical school curriculum. Despite the availability of Family Planning Association post-graduate seminars, few doctors have the time, the training or even the taste for this minor specialty. The Act will soon be upon us and we must do what we can. But perhaps we should aim to work in future towards a situation where only doctors so trained should do this work, as with the obstetric list? Behind its trendy public facade, the F.P.A. has in its doctors and nurses a fund of conscientious professional expertise which would make training programmes perfectly feasible.—I am, etc.,

PRUDENCE TUNNADINE

London W.1

SIR,—Surely the answer to the condom controversy is for G.P.s to prescribe condoms one at a time. In this way many patients will be discouraged from wasting their doctor's time, for 20p is a high price for one condom.—I am, etc.,

VERNON COLEMAN

Inkpen, Berks

Renal Failure in Combined Gentamicin and Cephalothin Therapy

SIR,—We would like to make the following comments about the paper by Professor J. P. Fillastre and others (19 May, p. 396) describing acute renal failure during treatment with high doses of gentamicin and cephalothin.