cyclines were "so far removed from mammalian gestation as to require no further comment."

If it will in any way balance the picture, we might mention that we both have our own personal cautionary lists, which include all antibiotics, except where an antibiotic is necessary to preserve maternal life or to treat a severe illness, and including, as we have said before, some of the phenothiazine derivatives.

Details of the millions of mothers who have taken tetracycline during their pregnancy without harmful effects on the children, mentioned by Dr. A. T. Mennie in his letter of August 18 (p. 480), would be of great statistical interest. This group, existing, we take it, without any case of birth deformity, must differ markedly from the expected incidence of congenital abnormalities (Professor Arneil puts it as high as about 3%, or 30,000 per million) in the population taken at large.

The right of the general practitioner to mention his suspicions to his professional journal by letter, however slight they are, and provided they are offered in good faith, is something which we believe the profession will wish to guard very jealously. "Flimsy scraps of evidence," if intelligently marshalled and correlated, may in themselves eventually clear the tetracyclines, and at the same time point to an unexpected source of toxicity.

As Professor Arneil himself concludes, the avoidance of all drugs or harmful influences in the first trimester is the first step; avoiding them specifically and with purpose, however, can alone bring about the knowledge which all seek, and which will eventually break wide open the problem of congenital birth deformity. The voluntary registration of any known case of deformity with a central authority, such as the toxicity and side-effects register of the College of General Practitioners (August 11, p. 408)—in its present "caretaker" role—may provide the proof for which so many of us look. We believe that only voluntary registration will achieve the depth of inquiry necessary in each case.—We are, etc.,

Nottingham.

FREDERICK WILSON.

Lowestoft.

MICHAEL P. CARTER.

REFERENCE

- ¹ Bevelander, G., Nakahara, H., and Rolle, G. K., *Nature (Lond.)*, 1959, **184** (Suppl. 10), 728.

Drugs and the Capitation System

SIR,—The recommendations of Professor H. W. Rodgers at the Belfast Meeting on the supervision of new drugs (July 28, *Supplement*, p. 44) are extremely important, but surely it is equally important to analyse the causes (the *vis a tergo*) for the prescription of the multiplicity of tablets by the thousand whose therapeutic necessity is questionable and whose toxic potentialities are immense.

The G.P. is subject to two pressures: (1) the pressure of the patient; (2) the pressure of competition with fellow G.P.s—he must produce something new to show that he is more alert and up to date, etc. As the method of payment is on a capitation basis, the G.P. is influenced a good deal by the above factors. There are some of us who have consistently issued warnings (even before 1948) on the dangers of abuse of drug prescription under a capitation system. While no one could have foreseen a tragedy such as faces the community at present, the

disturbing amphetamine situation exposed by Drs. L. G. Kiloh and S. Brandon in the *B.M.J.* recently (July 7, p. 40), which has revealed that these tablets are being prescribed by the hundred thousand, is something that one could foresee. There will be others of a similar nature, so long as the B.M.A. insists on a capitation system in a State health service.—I am, etc.,

Middleton, Lancs.

B. HIRSH.

Thalidomide and Congenital Deformities

SIR,—In view of the recent discoveries about thalidomide these two cases may be worth publishing.

Case 1.—A 20-year-old rhesus-negative primipara with a previous history of treated pulmonary tuberculosis developed a small fibroma of breast. The fibroma was removed when a period was 12 days overdue. The operation was performed under general anaesthetic (thiopentone, nitrous oxide, and trilene). A single dose (100 mg.) of thalidomide was given the night before and pethidine 100 mg. with scopolamine 1/150 gr. was given pre-operatively. The patient did not tell anyone that her period was overdue until later. According to the patient (and her records) no other medication was taken in the first three months of pregnancy. Tests for rhesus antibodies were negative. The pregnancy continued normally till the 36th week, when she was delivered prematurely of a male child with multiple deformities: both thumbs are missing and there is considerable deformity of both forearms; both legs are twisted and shortened and will almost certainly require bilateral above-knee amputations. There were no deformities of trunk or head.

Case 2.—A 40-year-old rhesus-positive multipara, whose first two babies had been stillborn after premature delivery at 28 and 33 weeks, had then had five normal pregnancies and one possible miscarriage. She did not report her eighth pregnancy until the 24th week. This proceeded normally, apart from a slightly raised blood-pressure in the last six weeks (rhesus antibodies were not detected at 36 weeks). At the 38th week she was delivered prematurely of a female child with multiple deformities. These included gross shortening (? absence) of both humeri; a finger and a thumb were absent from each hand; the left leg was grossly twisted and abnormal; the anus was imperforate, and the baby died on the seventh day.

Specific questions about thalidomide seven months later revealed the following information:

The mother had obtained a sample packet of "tensival" (of the type issued to the medical profession) from a non-medical friend. The packet—subsequently produced for inspection—originally contained 25 tablets, of which 20 were missing. Each tablet contained thalidomide 12.5 mg. and hydrochlorothiazide 12.5 mg. According to the mother she suffered from premenstrual tension and had taken between 6 and 10 tablets on two occasions, the first before a normal period and the second was four weeks later when her period was two days overdue—this was the onset of her eighth pregnancy.

There are certain points of interest about these patients:

(1) They suggest that the possible danger point for thalidomide was between the 28th and 40th day of pregnancy.

(2) The total dosage of thalidomide was less than 125 mg. in both cases.

(3) In both cases the patient's family doctor was unaware that thalidomide had been taken.—We are, etc.,

HAROLD SAUNDERS.

RALPH WRIGHT.

KEITH HODGKIN.

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