CORRESPONDENCE

Antenatal Diagnosis of Spina Bifida

SIR,—Further to your leading article (22 February, p. 414) we can add further reports of cases of spina bifida detected by amniotic α-fetoprotein (AFP) assay and, though serious closed lesion may be missed, the test is a good one. We also agree that maternal serum AFP assay is currently able to detect at 16-20 weeks about one-third of cases of spina bifida. You conclude that, in spina bifida, amniotic fluid specimens with at least 2% false positives, pregnant women with a risk of 1 in 20 of bearing a fetus with spina bifida can be identified, and general screening of all pregnancies by maternal serum AFP assay should now be considered. This is surprising since the assay technique is still subject to much inter-laboratory variation. It misses two-thirds of cases of spina bifida, and there are many practical and ethical problems still to be solved.

A minor revolution in obstetric practice would be necessary to obtain at 14-16 weeks serum from 800 000 pregnant women annually, especially in those areas where the majority do not book until later. Is it ethically justified to perform maternal serum assays on women who would never accept a termination of pregnancy, and should every woman undergoing this test be warned that amniocentesis would be indicated if the serum test is positive? Though unnecessary for the majority of anencephalics (detectable by ultrasound alone) 14 000 amniocenteses per year might be required, and it is doubtful whether sufficient equipment and trained technicians are available to allow preliminary ultrasound scan, without which the risks of amniocentesis may rise. Unwanted abortion currently results from amniocentesis in approximately 1-2% of cases and consequently each year 140-280 normal, wanted fetuses might be jeopardized. It is also generally agreed that chromosome studies should be carried out on specimens of amniotic fluid taken for AFP assay, but this is not always possible with the resources at present provided. It would be quite impossible on the few 14 000 amniotic fluid specimens a year and mongols would be missed.

Though the value to individual women of antenatal diagnosis is undisputed, population screening with a view to selective abortion is rather different and we must avoid the precipitate introduction of an unvalidated and costly screening programme based upon studies involving selected high-risk pregnancies which may not be representative of the general population of pregnant women. It is hoped that the enthusiasm created by your leading article will be channelled into well-controlled pilot studies of maternal serum assay and the establishment of regional teams providing specialized obstetric, radiological, genetic, and biochemical services directed to the improved antenatal detection of all birth defects.—We are, etc.,

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1 Harris, R., et al., Lancet, 1974, i, 429.