Congenital Defects Due to Thalidomide

SIR,—We were interested to read Dr. M. A. Lécutier's case report (December 1, p. 1447) of a baby with multiple congenital deformities which were attributed to thalidomide. Similar features were observed at a necropsy recently performed on a baby born in this hospital. In this case, however, the date of prescription of thalidomide has been checked from the original prescription.

Case History.—A woman aged 29 was delivered normally of a 6½ lb. (2.9 kg.) female infant at 41 weeks' gestation. She has one other live normal child aged 8. The mother was prescribed "triptizol" (amitriptyline) 25 mg. t.d.s. on September 14, 1961, for depression, and thalidomide ("distaval") was added on October 10, 1961, 25 mg. daily. One hundred tablets were prescribed. She returned to her general practitioner on January 11, 1962, and reported that she was pregnant (L.M.P. November 26, 1961). Pregnancy was normal throughout. At birth the baby was noted to have gross upper limb deformities and an abnormal, flattened face. On the tenth day of life a systolic murmur was heard for the first time. Her general condition was otherwise good and she was discharged. She returned to the routine follow-up clinic aged 6 weeks in cardiac failure and was admitted to the Royal Hospital for Sick Children, where she died on November 19.

Necropsy.—There was gross shortening of both forearms with absence of ulnar bones and flexural deformities of both wrists. There were only four fusiform digits on both hands and a vestigial thumb had been amputated from the left hand on September 19. The heart was enlarged and showed truncus arteriosus and a high interventricular septal defect. The lungs showed terminal congestion but were otherwise normal. There was a deficiency of the left diaphragm. The gut was normal apart from the absence of the appendix. The left kidney was absent and the right kidney 1½ times normal size. The uterus was unicornuate, the one horn on the right side. All other organs were examined but found normal.

It appears that this woman became pregnant whilst taking thalidomide and continued to take it for four to five weeks after conception. In a recent article in this journal (October 13, p. 944) Drs. C. Lutwak-Mann and M. F. Hay, working on rats, suggest that thalidomide affects the preimplantation embryo, in addition to the toxic effect on limb buds. The generalized abnormalities in this baby are in keeping with this suggestion, and this case re-emphasizes the potential dangers of prescribing any drugs to females of child-bearing age whether pregnant or not.

I am grateful to Dr. J. W. Farquhar for permission to report this case.

—I am, etc., ANNE STEWART.

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Exposure to Asbestos Dust and Diffuse Pleural Mesotheliomas

SIR,—The letters of Dr. W. J. Smithers and his colleagues (November 3, p. 1194) and of Dr. W. T. E. McCaughey and his colleagues (November 24, p. 1397) draw attention to the association between malignant mesothelioma of the pleura and exposure to asbestos dust. In the first letter it is mentioned that the degree of pulmonary asbestosis in these cases of pleural mesothelioma may be variable, and in the second that the duration of the exposure to asbestos dust may be intermittent. It would appear that they have not noticed a recent article in which I describe a new pulmonary condition, basal asbestosis, and stress its association not only with malignant mesothelioma of the pleura but also of the peritoneum.[1]

Briefly, the following points were made:

(1) There is a condition, limited or basal asbestosis, where the lesion is more or less confined to the lung bases, presumably due to the downward movement of the sharp asbestos fibres, before they become asbestos bodies. This produces no pulmonary signs or symptoms, is not evident clinically, and is usually overlooked at necropsy. It will be missed even microscopically, unless sections are examined from the lung bases.

(2) While this basal asbestosis is unlike classical asbestosis in most particulars, it appears to attain locally a carcinogenic concentration, and as this lesion does not shorten the patient's life the carcinogenic action of asbestos can presumably act for a longer period. Indeed, this basal asbestosis may be found later to produce more malignant tumours than classical asbestosis.

(3) In three years in the necropsy service of a teaching hospital six cases of malignant mesothelioma were encountered, three pleural and three peritoneal, and in five of these the basal asbestosis was demonstrated. The lung bases are only a few millimetres distant from the peritoneum over the diaphragm, and the occurrence of peritoneal mesothelioma in basal asbestosis is not unexpected.

(4) In 1961 in four centres in the United States I found nine examples of basal asbestosis out of 15 cases of pleural and peritoneal mesotheliomas in which adequate lung was available for study. In all but two of them the basal asbestosis had been overlooked.

(5) In very few of these cases was an industrial or occupational exposure to asbestos mentioned, but this is of no significance unless direct questions are put to patients or their relatives. What is more important is that the world's annual consumption of asbestos has increased from 500,000 tons in 1942 to 2,400,000 tons in 1961, and that asbestos is to-day used in such a wide variety of manufactured products that, theoretically at least, the number of people who may be exposed to asbestos is enormous, and few of those thus exposed work in factories which are designated asbestos factories.

In January, 1963, will appear an article[2] in which I draw attention to asbestos as a modern urban hazard. Asbestos is virtually indestructible, and while strontium-90 has a half-life of 28 years asbestos has a half-life of an infinity of years. The article demonstrates on evidence from necropsies that a large and increasing percentage of the population are inhaling asbestos fibres. As these tend to gravitate to the lung bases there will be a cumulative effect, and one wonders if in 20 years' time asbestos-induced mesothelioma may not be as common as cancer of the lung is to-day.—I am, etc.,

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REFERENCES

1 Thomson, J. G., *S. Afr. med. J.*, 1962, 36, 759.
2 —— Kaschula, R. O. C., and MacDonald, R. R., ibid., in press.

Risks of Primary Vaccination

SIR,—Professor G. W. A. Dick (November 17, p. 1275) reprints a table (I) on "Mortality per Million Primary Vaccinations" which seems to me to mislead. There is no mention of the number at risk in each separate age