ANENCEPHALIC FOETUS WITH SHOULDER DYSTOCIA

A Case Report

by

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The aetiology of anencephaly and hydrocephaly remain in doubt. Marcus and Brandt, 1960, stated that the question of whether anencephaly is due to heredity or genetic factor alone is no longer tenable. Experimental studies by Ingallis *et al.* 1952, demonstrated that various abnormalities could be produced in mice by maternal anoxia at various stages of gestation. Anencephaly was produced when maternal anoxia was induced on ninth day of gestation. Geographic variation, seasonal incidence and apparently increased risk in lower socio-economic group and higher age group, all suggest the implication of environmental factor. In 1959 Fraser summarised the cause of foetal malformations as: (1) minority of congenital malformations have a major genetic cause. (2) minority of congenital malformations have a major environmental cause. (3) most malformations have probably resulted from interaction between genetic predisposition and subtle factors of intrauterine environment. In 1961 Neel estimated that there was genetic basis for 20% of all malformations and chromosomal aberration for 10%, and known viral infections for another 10%. Genetic factor is suggested by peculiar sex ratio of male to female of 1:3 in anencephaly as compared to 1.7:1 in hydrocephaly. In the series of Pingyenwei, 1965, there were only 9 cases of females out of a total of 17 cases. Hydraminios was present in 58.8% of his cases coinciding with the figures of Labrium and Wood 1961.

Hellman, 1961, stated that predominence of anencephaly in the female may be due to the fact that a large number of male anencephalic foetuses die in early stage of pregnancy, as sex chromatin studies of placenta have shown the ratio of male to females as 165 to 100. Coffee and Jessop have pointed out that large number of anencephalic foetuses belonged to blood group '0' as is the case in our patient. Horne, 1958, reported occurrence of anencephaly in four successive pregnancies in one woman, whereas Walker and Smith pointed out that in 90% of cases anencephaly was an isolated phenomenon.

Carter, 1958, is of the view that increasing age has a special predisposition to anencephaly, whereas Chen and Chen, 1958, say that age has no influence whatsoever in this anomaly. Anencephaly in twins has been re-

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ported by Josephson 1939, Lewis 1960, and Symods 1965. Dumoulin, 1959, reports the incidence of anencephaly in one foetus of twins as, in 40.000. Using radio-chromium Cr. 51 Pritchard 1965, has conclusively demonstrated that anencephalic foetus has no power of deglutition and it is one of the main causes of hydromnios.

Another dramatic feature of anencephaly is shoulder dystocia and is not sufficiently covered in the literature, hence the following case is reported.

Case Report

Mrs. K. aged 20 years, IInd gravida, first full-term normal, died after six days; was admitted on 11-8-1965 with history of having pains since 2 days. She was anaemic and restless, B.P. 130/90 mm of Hg. pulse rate 130/m. respirations 30/m. Blood group 'O'. On inspection uterine contour could not be made out, and on palpation lower abdomen was tender and foetal parts were not made out; foetal heart was not heard. Per vaginam, cervix was fully dilated, congested face was presenting over the perineum and dark blood escaped from the uterus into the vagina. As rupture of the uterus was suspected laparotomy was done soon after. At laparotomy it was noticed that the uterus was lifted up by a large haematoma in the left broad ligament with intact pritoneal covering. On opening the utero-vesical fold of peritoneum there was a transverse rupture in the lower uterine segment; through the opening a large dead female foetus, weighing 8 lbs., was extracted and sub-total hysterectomy done. To our great surprise we found the foetus to be an anencephalic monster having a large shoulder girdle, 15 cm., and echymotic patches seen on both shoulders due to shoulder dystocia. (Fig. 1).

Comments

This case is reported for the rarity of anencephalic monster causing shoulder dystocia and incomplete rupture. The clinical features of anencephaly associated with hydramnios, twins, and its causative factors like age, enviornment, heredity and genetic factors are reviewed. Before discharging the patient x-ray pelvimetry showed contraction of the pelvis at the inlet and cavity. Diagonal conjugate clinically was only 6.5 cms.

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