

SYNCEPHALUS THORACOPAGUS

(A Case Report)

by

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Few obstetricians get opportunity to conduct a delivery of double monsters diagnosed either in the antenatal or intrapartum period. Even obstetric specialists of considerable experience may come across not more than one or two such cases in their life time. Nevertheless, obstetricians have to get acquainted themselves with the types of double monsters and the difficulties encountered during their delivery.

There are two primary groups of united twins. In the symmetrical disomata group, the two fetuses are of almost equal size and are symmetrically disposed and united while in the asymmetrical disomata group, the two fetuses are of different sizes and asymmetrically disposed and united by unlike parts. (Munro Kerr)

This case report is of Syncephalus Thoracopagus belonging to the first group. It is very interesting because of its rarity and its diagnosis during pregnancy by radiological means.

Case Report

Mrs. R. B., age 27 years, had attended

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antenatal clinic on 19th July, 1971 with eight months' amenorrhoea and difficulty in breathing since three days. She had four normal full term deliveries. The last delivery was two years ago. There was no significant past obstetric history. There was no history of multiple pregnancy in the family.

On examination, she was of average built and nourishment. The pulse was 88 per minute and the blood pressure was 110/70 mm. of mercury. There was slight oedema of feet. Haemoglobin was 10 gm.%. Urine, albumin and sugar were absent. Systemic examination did not show any abnormality.

Abdominal examination revealed a tense abdomen, uterus size of about 36 weeks gestation. Hydramnios was present and it was difficult to palpate the foetal parts. Foetal heart sounds were located only with the help of sonicaid and were at two distinct sites with a difference of more than ten beats per minute. Presumptive diagnosis of hydramnios was made. Straight skiagram of the abdomen showed only outline of the head. The rest of the film was hazy due to excess liquor amnii. The lateral x-ray was taken with the advice of the radiologists. It showed twin pregnancy, both presenting by breech, fusion of the two heads, the vertebral columns were separate but very close to each other in the thoracic region. There were four upper and lower extremities. (Fig. 1).

She was admitted on 20th July for termination of pregnancy, but before we could do it, she went into spontaneous labor. Vaginal examination revealed cervix three fingers dilated. The membranes were tense and bulging. Artificial rupture of forewaters

was done. The fundal height came down to size of 26 weeks' pregnancy and the foetal heart sounds were easily heard due to escape of excess liquor amnii. On vaginal examination the presentation was head. As the uterine contractions were feeble and infrequent, 2.5 units of pitocin was commenced in one pint of 5% glucose solution. The delivery was smooth and without any interference or complication. Methergin 0.2 mg. was given intravenously. The uterus was firmly retracted and there was no postpartum haemorrhage. The foetuses were alive for 10 minutes after birth.

In the postpartum period, lactation was suppressed by oral stilboestrol. Tube ligation was done and the patient left the hospital on the 7th day of the operation.

External Appearance of the Twins

Both the babies were males. Their combined weight was 1400 gms. The foetuses were fused in the region of the heads and along the ventral aspect of the trunks. There were two pairs of normal and equal length of upper and lower extremities. The monster had one face, and four ears. (Fig. 2). A single umbilical cord was running from the placenta to the joined trunks.

Placenta was single with a battledore attachment of the cord. There was a single amniotic cavity. Placenta weighed 250 gms. The umbilical cord contained two umbilical arteries and one umbilical vein.

Internal Anatomy

The following observations were made on opening the thorax and abdomen:

1. Single bony thoracic cage, two hearts, four lungs, one trachea, one oesophagus.
 2. There was only one alimentary canal from the oral cavity to the stomach while from duodenum to anus it was in duplicate.
 3. Liver and spleen were common to both the foetuses.
 4. There were two separate urinary systems, each consisting of a pair of kidneys, a pair of ureters and a bladder.
 5. Internal genital organs were in duplicate.
1. Cerebellum, pons, medulla and spinal cord were in duplicate while about cerebrum nothing could be decided as it was not possible to dissect.

Discussion

Incidence of conjoined twins is difficult to ascertain as it is a very infrequent anomaly. The incidence reported by Feldman (1963) is about 1 : 50,000 deliveries and that reported by Mortimer and Kirstbaum (1962) is about 1 : 283,000 deliveries. They are more frequent in multiparae. Syncephalus double monsters are comparatively very rare among conjoined twins.

Corner (1955) described how uniovular twins occur by separation of the early blastomere into two embryos, each with its own chorion. If separation occurs later by duplication of the inner cell mass of the blastocyst, the embryos have their own amnion but a single chorion. Should separation occur still later the germinal disc duplicates and two embryos develop in one amniotic sac with a common yolk sac and have a greater likelihood of being conjoined.

Different terminology has been employed for double monsters depending upon the site of the union. Syncephalus is the type where there is separation of the caudal ends of the foetuses leaving fused or partly fused heads. In thoracopagus, there is separation of both ends of the foetuses which are united by the trunks. The present case resembles that described by Gough. It is an example of syncephalus thoracopagus variety of conjoined twins.

Shaw stated "Double monsters have never been diagnosed before labor". That was true prior to the employment of radiography. Nowadays radiography can give us some clue to the diagnosis, if the films are studied carefully in all twin pregnancies. They should be studied for their positions, the number and position of the limbs and possible osseous union. Gupta and Wakhloo (1968) and Melin (1967) reported the cases where the diagnosis was made in the antenatal period

by radiology. More commonly, however, these malformations are diagnosed late in labour when a delayed second stage prompts an internal examination.

If the condition is recognised early and if the foetuses are small and premature, induction is satisfactory. Fortunately, most of these deliveries are premature and spontaneous. Bhattacharya (1970) also reported spontaneous vaginal delivery in a syncephalus thoracopagus monster. If on the other hand, the monster is large and presents by the head, perforation and breaking of the head is the treatment. If the lower extremities present first, the bodies may be born but the after coming head may remain at the brim of the pelvis and may require perforation. Sometimes, caesarean section is far safer than a difficult operative vaginal delivery.

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See Figs. on Art Paper V