ACARDIAC MONSTER IN TRIPLETS

by

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The condition of acardiacus has only been substantiated in multiple pregnancies which has been suggested as a prerequisite for this anomaly to occur since the affected twin is thought to depend upon the functioning heart of a normal twin for its circulation and survival. This malformation is confined to one of monozygotic twins or triplets or even quintuplets and is of considerable theoretical interest.

Acardiac monsters have been variously classified into groups by various authors. Kaufmann and Walters (1957) recognise 3 classes.

1. Acardiacus omphalus in which the trunk and limbs are developed and the head absent.
2. Acardiacus acormus in which the head only is developed.
3. Acardiacus amorphus in which the foetus has not acquired external form but appears as an irregular skin covered mass.

Of these acardiacus acormus is exceedingly rare.

The following is the case report with autopsy of a acardiacus omphalus in which the trunk and limbs are developed and the head absent and characterized by the absence of a heart.

CASE REPORT

An elderly primigravida aged 30 years was admitted into maternity wards of King George Hospital on 12th July with History of 8 months' amenorrhea and odemea feet. She was diagnosed as a case of triplets with associated hydramnios, toxaemia and anaemia. X-Ray abdomen revealed triplets.

On 6-8-1974 she went into labour one month prematurely. Ist Baby—Maccerated female delivered as breech—Wt: 3 lbs 12 ozs. 2nd a live female baby by forceps. Wt: 4 lb 7 ozs. after delivery of the 2nd baby, the uterus was 28-30 weeks size. On vaginal examination an irregular mass from which on tracing highup revealed limbs without toes. As the presenting part was not descending and there was some bleeding a malformed female foetus was extracted by pulling on the feet. The foetus was without head or upper limbs, weighing 550 gms and was 45 cm length. The placenta was single monochorionic. Autopsy was done on 7-8-1974.

The malformed foetus appeared as a amorphous mass weighing about 2 lbs 13 ozs. The caudal part of the body resembled the normal structure. There were no structures recognisable as eyes, ears, nose or head. A small opening at the upper anterior part represented the oral cavity into which a probe could be

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ferred to as double Naegele pelvis, for both alae of the sacrum are ill developed or absent. The Robert pelvis is among the rarest of all types of contracted pelvis.

In true Robert pelvis there is a maldevelopment of the sacrum with absence of both alae and hence both innominate bones are found synostosed directly with the rudimentary sacrum. In the original pelvis described by Robert "the anterior surface of the sacrum was convex in both directions. Owing to the imperfect development of the sacrum, the pelvis was markedly contracted transversely and only slightly antero-posteriorly. The pelvis was symmetrical and the ileopectineal lines more or less straight. The inlet was rectangular in shape, being slightly narrow infront." The radiographs of this case show the typical characteristics of Robert pelvis. The ileum has firmly synostosed with the sides of the sacrum with no sign of joint space. The inlet of the pelvis is rectangular becoming narrow in front and is slightly oblique (Fig. 1). Pubic arch is narrow and also the transverse diameter is markedly reduced (Fig. 3).

Berry Hart (1917) thought this anomaly as a result of polar losses of the size elements of alae sacri and innominate bones due to maturation of the sperm and germ cell. As this is a germ plasm change and multiplication of reduced elements occurred it may be transmitted. Williams (1929) agreed to the embryonic origin of the defect. Little and Inglis (1958) have discussed extensively the anatomy and etiology of Robert pelvis. Little has classified the true Robert Pelvis into complete and incomplete varieties depending on abscence or presence of some form of joint space between the rudimentary sacrum and the innominate bone.

In our case there is no evidence of joint space (Fig. 1) and so it is a case of complete variety of true Robert pelvis, as there is no previous history of trauma or infection of the pelvis bones.

In the appearance of the patient with Robert pelvis, the chief characteristic is the narrowness of hips. The narrowness of the hip in our case is suggestive of Robert pelvis.

Summary

A case of true Robert pelvis, complete type, who was safely delivered of a living infant weighing 2.5 Kg. by lower segment caesarean section is reported.

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See Figs. on Art Paper VIII-IX