Picture Story

Parapagus conjoined Twins: A Sri Lankan case report

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Introduction

Conjoined twins are a very rare occurrence where twins are born physically connected. There are 7 known subcategories1, one of which is ‘parapagus’ meaning lateral sides of the lower halves of the body are connected to varying degrees.

A 24 year old mother in her 5th pregnancy with 3 previous miscarriages, was referred as she was diagnosed to have conjoined twins at 33 weeks of gestation, confirmed by fetal magnetic resonance imaging (MRI). Her 1st pregnancy resulted in spontaneous vaginal delivery of a healthy term neonate.

In this pregnancy fetal echocardiogram revealed a single heart with a single atrium, two well-formed ventricles with a large ventricular septal defect (VSD).

Elective lower segment caesarean section was planned at 34+4 weeks of gestation and babies were born with 2 heads, 4 upper limbs, single chest wall, single abdomen with a single umbilical cord containing 2 arteries and 1 vein, single anus, female genitalia and 2 lower limbs (Figure 1). No dysmorphic facial features, urine passed and bowel opened.

Figure 1 – Physical appearance of the parapagus conjoined twins.

(Photograph reproduced with permission)
Right side twin not cried at birth, cyanosed, floppy, no spontaneous breathing, heart rate around 60-80 and APGAR score was 2,4,6 respectively at 1,5,10 minutes.

The left twin had a weak cry at birth, cyanosed, no tone, spontaneous breathing was present but not effective, heart rate around 60-80 and APGAR score was 3,4,6 respectively at 1,5,10 minutes.

5 inflation breaths given and ventilation breaths continued in both. Their colour improved, saturation around 70%, heart rate>100, weak cry in both, spontaneous breathing achieved but not effective.

Again condition deteriorated and despite resuscitation, they died after 1 hour of birth.

X-rays showed 2 rib cages which were fused medially, underdeveloped lungs and 2 vertebral columns (Figures 2, 3).

Figure 2 – Medially fused rib cages and underdeveloped lungs.
Figure 3 – Separate vertebral columns.
Discussion

Conjoined twins are rare, with the incidence being approximately 1:50,000 in utero to 1:250,000 live births. 65% of cases are stillborn, while 35% out of live births, babies die within the first 24 hours. Although the exact aetiology is uncertain the probable aetiology is incomplete division of the zygote between 13 to 15 days after fertilization resulting in 7 subcategories according to the site of conjunction: craniopagus, pyopagus, thoracopagus, cephalopagus, parapagus, ischiopagus, and omphalopagus. Male to female ratio is 1:3. Conjoined twinning has no associated risk found with race, parity, maternal age or heredity.

Above discussed babies are female parapagus conjoined twins.

Early diagnosis will be crucial as this condition leads to physical implications to the mother as well as psychological and social implications to both parents. Prenatal ultrasound scan, fetal echocardiogram and fetal MRI are useful investigations in diagnosing and determining the extent of the condition.

It will help to decide on the postnatal treatment plan for the conjoined twins medically and surgically as early as possible.

References


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