CASE REPORT

Thoraco-omphalopagus conjoined twin: A case report

Nabanita Deka[1], Aushima Vijay[2]

[1]Assistant Professor, Department of Obstetrics and Gynecology, Gauhati Medical College, Guwahati, Assam. [2]Post graduate student, Department of Obstetrics and Gynecology, Gauhati Medical College, Guwahati, Assam.

Correspondence: Nabanita Deka, Assistant Professor, Department of Obstetrics and Gynecology, Gauhati Medical College, Guwahati, Assam.

ABSTRACT

One of the most enthralling congenital malformations which always remain a curiosity for the general public is conjoined twins. More commonly called as Siamese twins, they are veiled in mystery right from their conception and genesis to prognosis of severe morbidity and mortality. A primigravida at 32 weeks gestation with thoraco-omphalopagus twins was delivered at our hospital by elective lower segment caesarian section (LSCS). Making an early diagnosis by ultrasound will help the parents to opt for pregnancy termination.

Keywords: Primigravida, monochorionic monoamniotic, thoraco-omphalophagus, LSCS.
Conflict of interest: None. **Disclaimer:** Nil.

An interesting anomaly unique to multiple pregnancies is conjoined twins. This is a rare disorder affecting 1 out of every 200 monozygotic twin pregnancies, 1 out of every 900 twin pregnancies, and one out of every 25,000-100,000 birth. The most common type being thoraco-omphalopagus whose incidence is 28% of all the conjoint twin.

It results from the incomplete fission of the inner cell mass rather than a partial fusion of two separate centers of growth [1]. The overall survival rate is 5-25% so early diagnosis and intervention remains the bottom line of managing such a case.

Case Report: A 20 year old primigravida was referred to our hospital from a civil hospital as a case of thoraco-omphalopagus conjoined twin. Her last menstrual period (LMP) as 24th April 2014 and her period of gestation at the time of hospital visit was 32 weeks 5 days. There was no history of twin pregnancy in the family. On general examination, she was of an average build and well nourished. Her physical and systemic examination was normal. Per abdomen findings - fundal height corresponds to 36 weeks of gestation. Lie and presentation could not be made out. Uterus was full of fetal parts. Only one fetal heart sound could be localized which was regular. Blood group - B +ve, Hb-9.6gm/dl, viral markers- negative. Obstetric scan was performed and revealed- twin pregnancy, monochorionic monoamniotic conjoined twins of 32 weeks gestation. 4 arms, 4 legs and 2 heads were visualized. Fusion was seen at thorax and abdomen. Only 1 heart and 1 abdomen was visualized. Placenta was posterior. Liquor was adequate.

Received: 26th March 2015. **Accepted:** 28th April 2015.
Deka N, Vijay A. Thoraco-omphalopagus conjoined twin: A case report. The New Indian Journal of OBGYN. 2015; 2(1):60-62

Patient and her husband were counseled regarding the incompatibility of life for the baby and need of termination. Patient was planned for elective caesarean section. She delivered conjoined twin male babies on 13th December 2014 by LSCS. 1st baby was delivered as vertex while there was a delay in delivery of the 2nd baby, who was then delivered by forceps application after 3 minutes. Twin weighed 3 kg. Ultrasonographic findings were confirmed (2 head, 4 arms and 4 legs) and placenta on inspection was monochorionic monoamniotic. 1st baby cried after stimulation but 2nd baby did not cry and was stillborn. 2nd baby did not have vertebral column and was attached by thorax and abdomen to the first baby. They were immediately shifted to neonatal intensive care unit (ICU) where intubation was done but the baby condition deteriorated and expired after 2 hours. Immediate post partum period was uneventful for the mother. She was given tablet cabergolin 0.5mg for lactation suppression and discharged after 4 days with the advice for early antenatal check up in the next pregnancy.

Discussion

Conjoint twin occurs at the frequency of approximately 1 in 50-60,000 births. The etiology remains obscure but the most accepted theory is incomplete division of the monozygotic embryo occurs at 13-15 days post ovulation. The condition is more common in females with the ratio being 3:1[2]. Many of the infants are delivered prematurely and are either stillborn or die after few hours of birth. The suffix pagus is used which means fastened. They are classified according to their site of union eg. (a)Thoracopagus- shared thorax, (b) Omphalopagus- shared abdomen (c) Thoraco-omphalopagus- shared both thorax and abdomen (most common), (d) Ileopagus- connected at the iliac bones (e) Cranipagus- joined at head, (f) Rachipagus- dorsal union of head and trunk and (g) Pyopagus- joined at the buttocks [3].

Regardless of the site of union variation occur with regard to the internal organs. Major congenital anomaly of one or both the twins is almost always associated. Polyhydramnios may be seen in 50% of the cases.

The antepartum diagnosis can be ascertained by the use of ultrasonography. The following findings increases probability of conjoined twins: a) twins face each other, b) heads are at same level and plane, c) the thoracic cages are in unusual proximity, d) both fetal heads are hyperextended, e) there is no change in the relative position of the fetuses with movement, manipulations, or in repeat examinations obtained hours or days later [4].

Early diagnosis of conjoint twins is not reported prior to 10 weeks [5]. Once the conjoined twin has been diagnosed characterization of the type and severity of abnormality can be performed with Ultrasound, 3-dimensional ultrasound, computed tomography and magnetic resonance imaging. Termination of the pregnancy can be offered to the family. Caesarean section near term is preferred to minimize maternal injury though there are many reports of vaginal deliveries of conjoined twins [6, 7]. If the twins are small and have fewer chances of survival vaginal mode of delivery might be considered.

Separation of conjoined twins is extremely complicated procedure. Multidisciplinary approach is required (surgical, anesthetic and nursing). The prognosis is often predetermined by underlying anatomy which may preclude successful separation but careful planning and organization is quintessential [8].

Conclusion

Inspite of the technological and surgical advancements, mortality of conjoined twins remain high. Also the separation techniques are too intricate and survival of the babies becomes difficult. Early diagnosis and precise characterization of the conjoint twins can ease the management plans for the obstetricians and can also attenuate psychological trauma to the parents.

References

1. Fernando A, Daftary S, Bhinde A, editors. Practical Guide to High Risk Pregnancy and Delivery. 3rd ed. New York: Elsevier; 2012.

2. Abossolo T, Dancoisne P, Tuailon J, Orvain E, Sommer JC, Riviere JP. Early prenatal diagnosis of

asymmetric cephalothoracopagus twins. 1994; 23(1): 79-84.

3. Gerlis LM, Seo JW, Ho SY, Chi JG. Morphology of the cardiovascular system in conjoined twins: spatial and sequential segmental arrangements in 36 cases. Teratology. 1993; 47: 91-108

4. Kalchbrener M, Weiner S, Templeton J, Losure T.A. Prenatal ultrasound diagnosis of thoracopagus conjoined twins. J Clin ultrasound. 1987; 15: 59-63.

5. Hubinont C, Kollmann P, Malvaux V, Donnez J, Bernard P. First trimester diagnosis of conjoined twins. Fetal diagnosis and therepy. 1997; 12(3): 185-87.

6. NR Rajkhowa, Devi S. Vaginal Delivery of conjoined twins: A case report. The Journal of Obstetrics and Gynaecology Barpeta. 2014; 1(2): 114-16.

7. Agarwal U, Dahiya P, Khosla A. Vaginal birth of conjoined thoracopagus-a rare event. Arch. Gynaecol Obstet. 2003; 269: 66-77.

8. Miller D, Colobani P, Buck JR, Dudgeon DL, Haller JA. J Ped surg. 1983; 18: 373-76.