
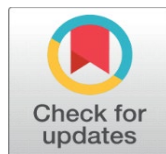


# THORACO-OMPHALOPAGUS CONJOINED TWINS: A CASE REPORT

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## ABSTRACT

Conjoined twinning is a rare congenital disorder with high mortality and morbidity rates. Thoracomphalopagus, a type of conjoined twins that involves the heart, is the most uncommon. We report a case in which a multigravida woman was admitted with a diagnosis of thoraco-omphalopagus conjoined twins by ultrasonography at 36 weeks of gestation. Conclusion birth planning and fetal separation of conjoined twins depend on prenatal identification.

**Keywords:** Prenatal, Conjoined Twins, Multigravida, Birth

## 1. INTRODUCTION

In monozygotic pregnancies, conjoined twins are an uncommon pregnancy problem. Conjoined twins occur in around 1 in 50,000 utero and 1 in 2,50,000 live births. The majority of conjoined twins do not survive: 35% of those born alive pass away during the first 24 hours of life, and 65% die at birth. Merely 25% of instances make it to the point when separation is a possibility. The location and extent of adhesions, the severity of the congenital defect associated with them, and the life of the attaching organ all affect the prognosis. Conjoined twins must be identified during pregnancy in order to schedule the birth and potentially separate them. Because of its rarity, this case has received extensive media coverage.

## 2. INQUIRY REPORT

Based on an ultrasound scan, a 29-year-old lady diagnosed with multiple pregnancy at 36 weeks gestation had thoraco-umbilical conjoined twins. Her last menstruation was on April 4 2020. The patient did not have a history of twins or a family history of twins. The two fetuses had two heads, two legs, and two arms, according to the ultrasound data. On the stomach and chest are twins. One viable fetal heart, a heart, and an umbilical cord are present (Figure 1). The arteries and veins of the umbilical cord are visible, and the placenta is situated laterally. Thoracoumbilical conjoined twins were diagnosed based on these results (Figure 1 (a) and Figure 1 (b)). The parents of the patient are notified of the malformation and the child's prognosis. His parents decided to quit. The following week, the patient's pregnancy was terminated with a planned cesarean section.

Figure 1

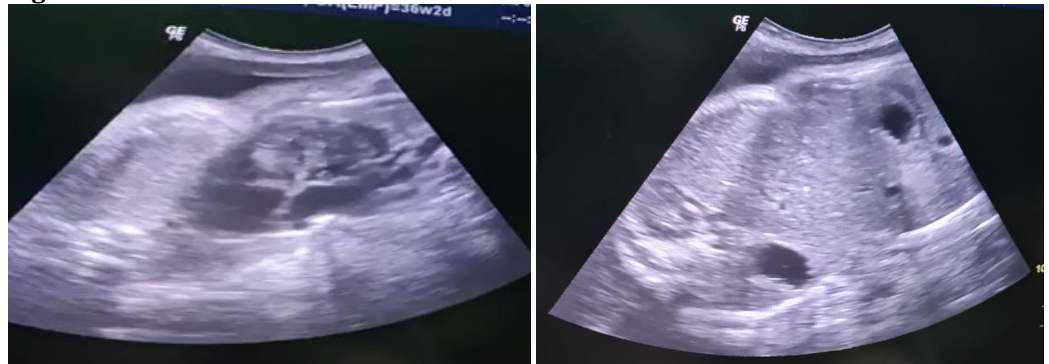


Figure 1a

Figure 1b

Figure 2

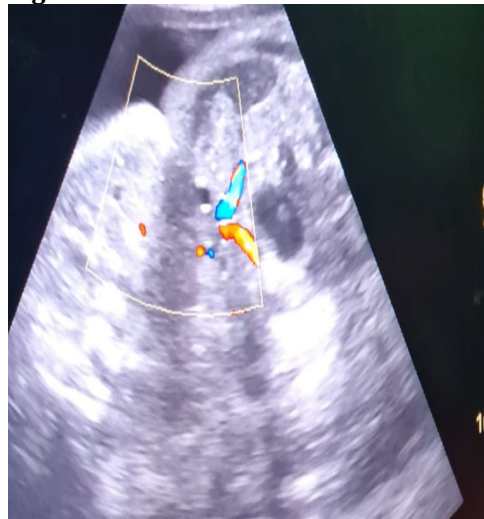


Figure 2

## 3. EXTERIOR VIEW

Babytwins are joined in the thoracic and abdominal areas (Figure 3). Closed palpebral fissure. Both show female external genitalia. Meconium was seen coming out of the twins' external genitalia (Figure 3). The face and limbs are well developed.

Figure 3



Figure 3

#### 4. ANALYSIS

The most noticeable point of the union determines the classification of conjoined twins. comprises the back (transaxial), sacrum (pyopagus), ischium (pyopagus), skull (transcephalus), and chest cavity. Thoracic complications (3) (19%) was the most prevalent category. Although the exact reason is uncertain, incomplete egg division between 13 and 15 days after fertilization is most likely to blame [Cunningham et al. \(2007\)](#). Conjoined twins have an overall survival rate of about 25% [Cunningham et al. \(2007\)](#). With a ratio of 3, this illness affects women more frequently [Osvaldo et al. \(2011\)](#). This happens more frequently in women for two reasons. According to the first theory, monozygotic twin formation is directly influenced by the process of X inactivation, which coincides with the timing of monozygotic twinning. The second theory is that the XX karyotype has a higher survival rate [Sadler \(2007\)](#).

Divergent ideas exist to explain how conjoined twins came to be. As of right now, it is understood that if the embryonic mass is not separated by the 12th day of fertilization, the fertilized egg may partially divide and give rise to conjoined twins. Fusion is the second theory. In this instance, the fertilized egg splits off entirely, but the mother cell finds a mother cell that resembles the other twin's and merges with it [Sadler \(2007\)](#). The chorion, placenta, and amniotic sac are shared by conjoined twins; however, asymmetric monozygotic twins also share same womb components, hence conjoined twins do not necessarily exhibit these traits. [Sadler \(2007\)](#).

Previous investigations have documented an early diagnosis of conjoined twins after 10 weeks of gestation [Sabih & Ahmad \(2004\)](#). Using transvaginal ultrasonography or serial scanning to differentiate different regions of the fetal anatomy is challenging. Following the diagnosis of conjoined twins, the kind and degree of the anomaly can be assessed by magnetic resonance imaging, computed tomography, ultrasound, or three-dimensional ultrasonography [Sabih & Ahmad \(2004\)](#). An abortion could be proposed to the family. Depending on the place of attachment, separating conjoined twins can be a very straightforward or extremely complicated process. The majority of separation situations are extremely risky and perhaps fatal [Oksuzoglu et al. \(2011\)](#).

The most crucial factor is a prenatal diagnosis so that a management plan alternative may be selected. The two primary options are MRIs and ultrasounds. Regretfully, in our instance, this check was not performed. Fetal ultrasound, fetal echocardiography, and fetal magnetic resonance imaging are crucial tests, particularly for conjoined twins. This is due to the fact that treatment decisions are heavily influenced by the location and degree of twin union as well as shared organs [Sabih & Ahmad \(2004\)](#), [Oksuzoglu et al. \(2011\)](#). High-frequency sound waves are used in fetal ultrasonography, a safe, non-invasive technique that produces detailed, high-resolution images, including 3D and 4D views [Sabih & Ahmad \(2004\)](#). A non-invasive ultrasound test called a fetal echocardiography assesses the fetus's heart's anatomy and function. The most crucial test for assessing conjoined twins is a fetal echocardiography, which can establish whether or whether the twins share a heart and, if so, how they are connected [Sabih & Ahmad \(2004\)](#). Another benefit of fetal MRI is that the fetus can get images without the need for muscle relaxants or maternal anesthesia. But it's challenging to tell the fetal body from the fixed position of the fetal head using MRI.

We provide a case study of conjoined twins with thoracoabdominal symphysis syndrome, which accounts for 75% of conjoined twin cases. In this case, both newborns are facing each other and share the same upper abdominal wall, diaphragm, and sternum. In this investigation, no instances survived when the heart was attached at the ventricular level. If you choose to carry the pregnancy to term, you could require an MRI or ultrasound to find birth abnormalities or congenital heart defects.

It is best to schedule births at tertiary hospitals with separate birth areas. The delivery technique is a caesarean section, ideally with an inverted T-shaped incision or a vertical incision in the uterus. The position and degree of the union, the presence of extra defects in the fetus, the division of essential organs, and the size of the uterus all affect the prognosis. Dividing or terminating a relationship based on the sharing of organs [Piaseczna-Piotrowska et al. \(2010\)](#).

## 5. CONCLUSION

The characteristics of an exceptionally unusual fetal abnormality are highlighted in this case. Conjoined twins must be diagnosed, and the family must be given all available information. The prognosis and outcome of the child, as well as the possibility of abortion, continuation, and postpartum separation, should be explained in detail to the patient.

## CONFLICT OF INTERESTS

None.

## ACKNOWLEDGMENTS

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