



A case of heterophagus twin pregnancy

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Objective

To report a case of a heterophagus twin pregnancy with an abnormal limb-like structure attached to the autosite.

Methods

This is a case report.

Results

A 26-year-old patient in the 36th week of her second pregnancy was transferred from her local hospital for further management due to footling breech presentation discovered during labour. She had an uncomplicated antenatal period, however, she had not undergone any ultrasound screening except her dating scan at 12 weeks of gestation. An emergency caesarean section was performed to deliver the baby, who was found to have an abnormal limb-like structure attached to the back. Further investigations followed and MRI of the brain and spine revealed an open spinal dysraphism (myelomeningocele) of the lower thoracic and upper lumbar segments. Heterophagus twinning is an extremely rare condition with an estimated incidence of less than 0.1 in 100,000 live births. It is considered to be a type of conjoined twinning, where one twin of the pair presents with a malformation. The affected twin is called the “parasite” and the intact twin is called the “autosite”. Other terms used to describe this condition are “asymmetric conjoined twinning” “partial or incomplete conjoined twinning” and “parasitic/exoparasitic” twins. The pathophysiology of conjoined twinning and heterophagus twinning is not clearly understood. One of the two possible mechanism is an embryonic incomplete fission of the blastocyst’s inner cell mass during the primitive streak stage (13 to 15 days postfertilization) resulting in two separate centers of axial growth that retain their connection. The second possible mechanism is the fusion of two originally distinct inner cell masses. It is assumed that due to a vascular compromise tissues of the parasitic twin become dependent on collaterals derived from the autosite. Compromised portion of the parasite undergoes selective ischaemic atrophy. Depending on the type of connection between the twins, different types of heterophagus twins are described. The most frequent type, involving connection between the thorax and umbilical area, is called “epigastric” or “omphalophagus”. Fusion at the hip and spine is termed “ischiophagus” and “rachiphagus” respectively. The less likely type, called “craniophagus”, represents with a fusion of fetal heads.

Conclusion

Due to the rare nature of heterophagus twinning, epidemiological and pathophysiological data is limited. Reporting of such cases may help further understanding of the pathophysiology and will also aid the early detection of this abnormality, making it possible to refer these cases to a perinatal center with a multidisciplinary team experienced in managing the condition.