

Rachipagus: A Rare Occurrence of Parasitic Twins

Sir,

Parasitic twins are a type of conjoined twin in which tissues of one incompletely formed twin are attached to a normal twin which may also have certain anomalies. The fusion of twins can occur at various sites, and when this fusion takes place above the sacrum level, specifically involving vertebral fusion, it is referred to as rachipagus.



Figure 1: Anomalous accessory limb attached to spine.



Figure 2: A 10x10 cm swelling at base, containing two structures resembling external genitalia.



Figure 3: Limb divided into two parts with joint and distal segment, bones within the accessory limb.

It is a rare condition, with a reported incidence of 1 in 1,000,000 live births.¹ A comprehensive literature review revealed almost 70 documented cases of rachipagus among parasitic twins.² The most common presentation of parasitic twins is the presence of an accessory limb and rudimentary genitalia.³

A male newborn delivered at 40 weeks of gestation presented with a congenital anomalous accessory limb attached to the spine, featuring a 10 × 10 cm swelling at the base, containing two structures resembling external genitalia, giving the appearance of a scrotum and phallus (Figure 1, 2). The radiographic evaluation confirmed the presence of bones within the accessory limb, divided into two parts, with a joint and a distal segment bearing four fingers oriented towards the caudal end (Figure 3). The limb was hypoplastic, and the baby was unable to support it against gravity. Manipulation of the accessory limb elicited pain responses, indicating intact pain sensation. No other dysmorphic features or musculoskeletal anomalies were observed. Neonatal reflexes were normal, with no weakness detected in the lower limbs. Systemic examination revealed no abnormalities. Since the baby was otherwise stable, it was decided in consultation with the paediatric surgical team to delay the surgery and keep the baby under close follow-up.

A multidisciplinary surgical team, comprising neurosurgeons, paediatric surgeons, plastic surgeons, and orthopaedic surgeons, is essential for successfully removing parasitic twin tissue. While separation of parasitic twins can be straightforward when no internal organs are shared, the presence of associated anomalies can complicate the procedure. The timing of surgery varies depending on the individual case. For stable children, it is recommended to delay surgery for up to three months due to anaesthesia-related complications. However, children with haemodynamic instability and neural tube defects benefit from earlier surgical intervention.⁴ One such case was successfully managed by Saaqi *et al.* in Pakistan.⁵

COMPETING INTEREST:

The authors declared no conflict of interest.

AUTHORS' CONTRIBUTION:

AK: Drafting, revision, and editing process of the manuscript.

SN: Data collection, analysis, and interpretation.

SM, MHUR: Data collection.

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REFERENCES

1. Navaei AA, Habibi Z, Moradi E, Nejat F. Parasitic rachipagus twins; report of two cases. *Childs Nerv Syst* 2015; **31(6)**:1001-3. doi: 10.1007/s00381-015-2664-z.
2. Zewdie K, Negash S, Bizuneh Y, Woldemichael F, Temesgen F. Rachipagus parasitic twins: A case series and review of literature. *Interdiscip Neurosurg* 2021; **24(6)**:101049. doi: 10.1016/j.inat.2020.101049.
3. Dejene B, Negash SA, Mammo TN, Tadesse A, Getachew H, Derbew M. Heteropagus (parasitic) twins. *J Pediatr Surg Case Rep* 2018; **37**:44-9. doi: 10.1016/j.epsc.2018.07.019.

4. Sahlu A, Mesfin B, Tirsit A, Debebe T, Wester K. Parasitic twin—a supernumerary limb associated with spinal malformations. A case report. *Acta Neurochir* 2016; **158(3)**:611-4. doi: 10.1007/s00701-016-2710-y.
5. Saaq M, Zimri FK, Zaman KU. Successful treatment of well-developed accessory lower limb associated with spinal dysraphism. *World J Plast Surg* 2020; **9(1)**:73-81. doi: 10.29252/wjps.9.1.73.

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