Case Pictorial

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Parasitic Twin: A Case Report

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Parasitic twin occurs when a developing monozygotic twin embryo does not fully separate, and one embryo maintains dominant development at the expense of the other which becomes vestigial. It occurs in 10% of all conjoined twins.[1] The underdeveloped twin is defined as parasitic because it is wholly dependent on the body functions of the completely formed fetus which called the autosite.[2] The parasitic twin is so malformed and incomplete that it typically consists entirely of extra limbs or organs. Although the vestigial limbs may have bones, muscles and nerve endings, they are not under control of the host.[3]

A 29 years male with a huge mass in left temporal region since birth reported to the department (Figures 1-3). The mass grossly looked like a fetus and was painless having mixed consistency (soft to hard) and slightly movable in all directions. The person belonged to the tea garden community of Assam and was born of a non- consanguineous marriage without any suggestive family or antenatal history. Computed tomography scan revealed (Figures 4 and 5). An incompletely formed parasitic twin communicating with the left petrous and squamous temporal bones of the patient; the host. Hypoplastic phalanges, tarsal bones, tibia, femur, and pelvic

Figure 1: Clinical picture showing the parasitic twin in situ, lateral view

Figure 2: Clinical picture showing the parasitic twin in situ, posterior view

Figure 3: Clinical picture showing the parasitic twin in situ, anterior view

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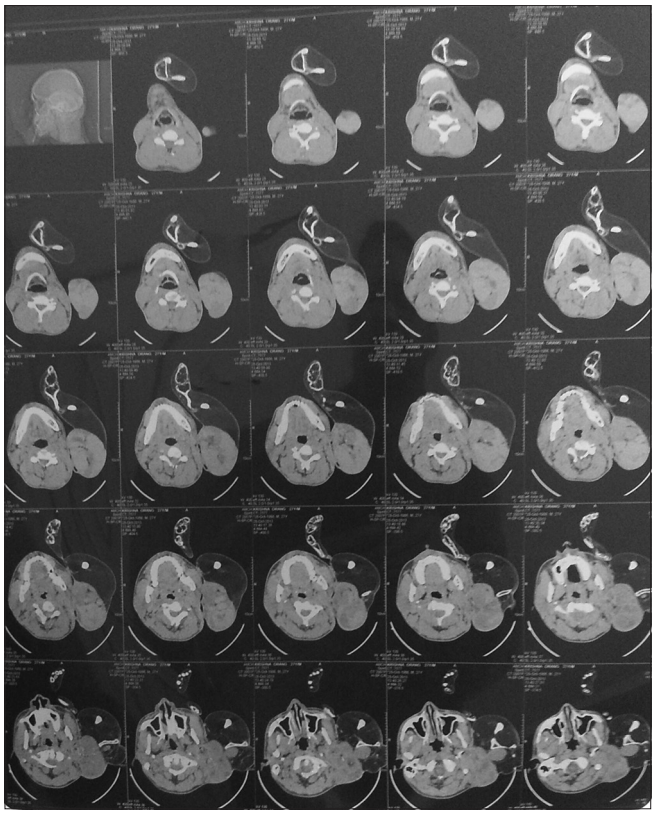

Figure 4: Computed tomography scan showing coronal sections at various levels

bones of the parasitic twin were noted. A cystic component measuring 6.7 cm × 4.2 cm × 7.5 cm was also noted.

- A bony defect in the greater wing of the sphenoid and squamous temporal bones with sclerosis and hypertrophy of left side of the sphenoid, squamous temporal and left petromastoid bones of the host.
- The bilateral cerebral parenchyma of the host appeared normal with non-visualization of a basitemporal lobe in the left side with evidence of fatty components of the parasitic twin.
- Left mastoid air cells and the middle ear cavity were hypoplastic, and the ossicles were absent. Excision was planned as separation was possible, but the patient had refused to undergo surgery.

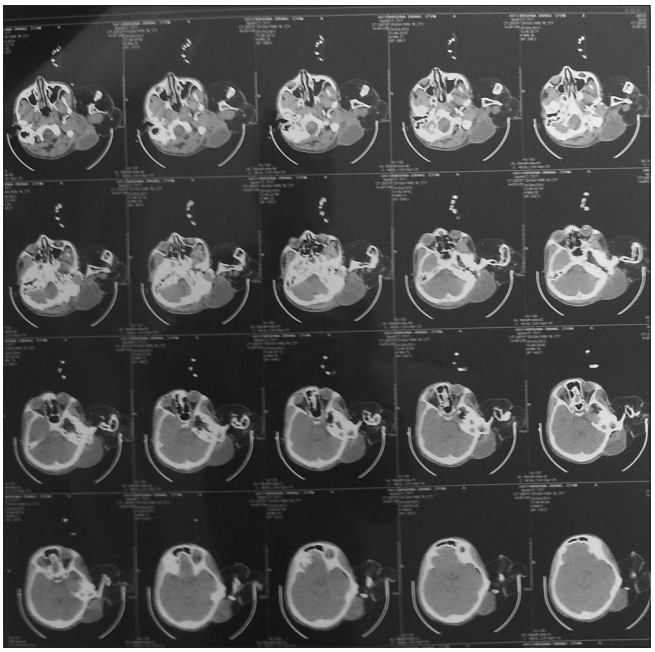

Figure 5: Computed tomography scan showing coronal sections at various levels

Points to Ponder

1. The parasitic twin is a rare condition occurring in 10% of all conjoint twins; the incidence of which is 1.58 per 100,000 live births.
2. The parasitic twin is anencephalic and lacks some internal organs for survival on its own.

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