Sonological Appearance of a Tailgut Duplication Cyst (Retrorectal Cystic Hamartoma) in a Neonate

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Dear Editor,

A 3-day-old female preterm neonate born at 35 weeks of gestation presented with swelling in the region of the perineum since birth. There were no genitourinary symptoms, mucus discharge, or rectal bleeding encountered in the neonate. Digital rectal examination on the newborn revealed a well-defined nontender extraluminal mass measuring approximate size of 2.0 cm × 3.0 cm in the perineal region. Perineal ultrasonography using a high-resolution linear probe showed a 2.5 cm × 3.0 cm lobulated multilocular cystic lesion with septations and internal echoes in the retrorectal space [Figure 1]. The neonate was assessed by the surgery department and excision was planned. Histologically, a 2.5 cm × 3.0 cm multilocular cyst was demonstrated with stratified columnar epithelium and scattered smooth muscle fibers [Figure 2]. Histopathological findings were consistent with the diagnosis of tailgut duplication cyst with no malignant transformation. Tailgut duplication cysts or retrorectal cystic hamartomas are congenital developmental lesions with varied clinical presentation due to their anatomical position and have a very rare incidence.[1] Embryologically, tailgut duplication cyst represents a blind extension of the hindgut into the tail fold distal to the cloacal membrane. Tailgut duplication cysts arise from the remnants of regressing primitive gut in the postanal region. Most common incidence is in middle-aged women who present with a retrorectal multicystic mass lesion.[2] Common symptoms include pressure symptoms from local mass effect such as pain, constipation with rectal fullness, and genitourinary symptoms, such as difficulty in passing urine. Tailgut duplication cysts are occasionally prone to malignant transformation and are to be considered in the differential diagnosis of presacral or retrorectal mass lesions. Complications such as secondary fistulization with the adjacent structures due to infection of the cyst and occasional malignant degeneration are notable.[3] The diagnosis is usually delayed as the pressure symptoms from the tailgut duplication cyst do not manifest until the size is large enough and probably because the incidence is very rare. Differential diagnoses of tailgut duplication cysts include dermoid cysts, epidermoid cysts, chordomas, teratomas, anterior sacral meningoceles, and enteric duplication cyst, which is of developmental origin.[4] For good prognosis, complete surgical excision is the gold standard treatment for a tailgut duplication cyst. The uniqueness of the current case is the incidence of tailgut duplication cyst in a neonate which was detected on ultrasonography on the 3rd postnatal day, and mostly, in the literature, tailgut duplication cysts are commonly diagnosed on magnetic resonance imaging. Early detection using high-resolution ultrasonography can provide prompt diagnosis and surgical access.

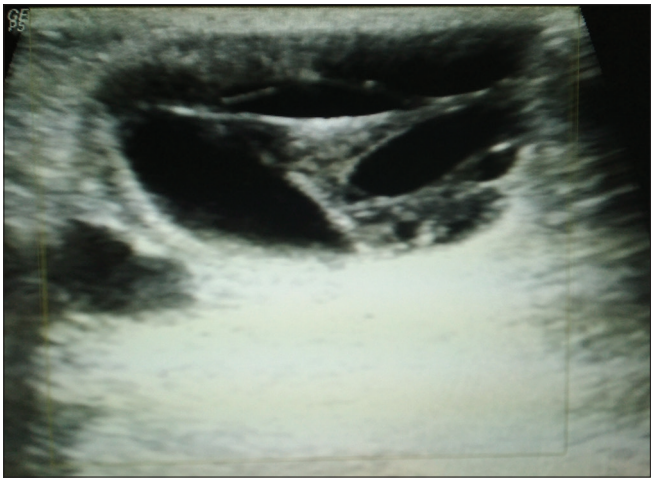

Figure 1: A multiloculated cystic lesion in the retrorectal space with internal septations and internal echoes

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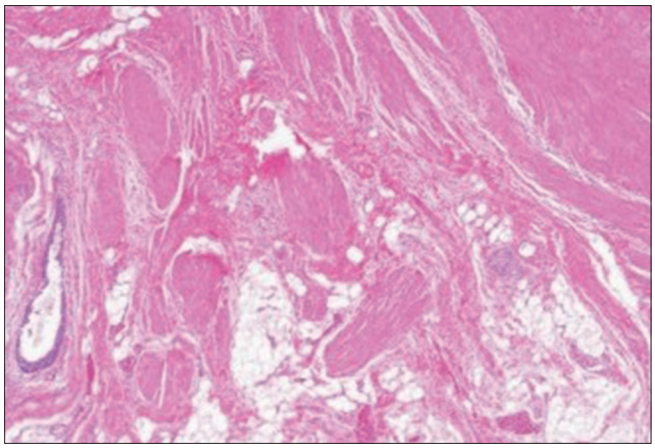

Figure 2: Histopathological image showing smooth muscle proliferation and abundant mucoid material lined by both squamous and glandular mucinous epithelium (H and E, ×100)

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient's parents have given their consent to their child's images and other clinical information to be reported in the journal. The parents understand that their child's name and initials will not be published and due efforts will be made to conceal the identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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