Intradural Tail gut Cyst: Rare Case Report and Review of the Literature

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Citation: Dr Blagia M. MD (2018), Intradural Tail gut Cyst: Rare Case Report and Review of the Literature: Nessa Journal of Neurology and Neurodisorders.

Received: 6th March 2018 Accepted: 11th March 2018 Published: 15th March 2018

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Introduction

Tail gut cyst, a rare congenital malformations (also known as retrorectal cystic hamartomas) usually presenting in the retrorectal space, is thought to be a remnant of the embryonic postanal primitive gut.

Generally, it locates retrorectal space, but it could be found in perirenal space, thigh, or around anus [1].

In literature only two cases of intradural tail gut cyst are described.

Case Report

The authors present the case of a 33 years old man from Bangladesh complaining low back pain and right leg hyposthenia.

Spine MRI showed conus medullar is cystic lesion of 16x10x15 mm filled by mucinous material without enhancement after gadolinium (Fig 1).
Neurologic examination showed a parahypostenia (MRC 3/5 at left leg, 4/5 at right), anesthesia in S1-S5, reduction of voluntary anal contraction and bladder disfunction.

The location and radiological aspect of the lesion suggested the diagnostic hypothesis of a mixopapillary ependimoma.

A laminectomy and flavectomy extended from L2 to L4 has been done. The Dura appeared thin at this level and after its opening a cystic lesion associated to a solid posterior nodule has been founded at conus level. The cystic portion contained a brownish fluid and the posterior whitish solid nodule appeared strictly adherent to neural tissue without a cleavage plane. A microscopic complete removal of the lesion has been done and from the histological examination a diagnosis of Tail gut cyst was done (Fig.2).
After the operation patient moved to a neuro-rehabilitation center with progressive neurologic improvement. Spine MRI done at 1 month follow-up showed a complete removal of the lesion.

**Discussion**

The tailgut is the distal most part of the embryonic gut, caudal to the cloacal membrane. It reaches its largest diameter on the 35th day of gestation, and the anus develops from the cloacal membrane on the 56th day of gestation. Normally, the tailgut completely regresses at or before the time of anal development. During its presence, the tailgut lies in proximity to the Hensen node, the distal notochord, and the terminal portion of the neural tube. Given the proximity of the tailgut to the neural structures, an intradural tailgut cyst arising from severe developmental nondisjunction is possible [3].

Tailgut cyst can be detected at any age, although it usually appears female, aging between 30s and 60s.

In gross examination, tailgut cyst is a multi-loculated cystic mass with a thin and glistening wall, which is filled with colored mucous-like material. In histopathologic feature, its inner lumen is lined by a variety of epithelial types. In literature only seven cases of tailgut cyst with aberrant location are described. As emerges in table 1 [2-7], two cases are perirenal, other two are located in subcutaneous tissue, in one case the cyst is prerectal and in only two subjects the cyst has an intradural location.
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<th>Authors</th>
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<td>Kemp J et al</td>
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<td>Niazi TN et al</td>
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The case described by the author presented a neurological examination similar to that described in the two cases of intradural lesion presented in literature with gate disturbances, lower extremities weakness and bladder disfunction.

**Conclusion**

Our case of an intradural tailgut cyst appears to be an extremely rare developmental aberration.

In light of what we know regarding traditional tailgut cyst formation in the retro rectal region, we hypothesize that this aberration must have occurred early in embryogenesis. Our patient did not harbor any bone defects within the anterior sacral column or any retro rectal extension of disease that could account for the possibility of a lesion within the typical location and with encroachment into the thecal sac. Future studies of more patients with this condition may help develop a more certain conclusion regarding the pathogenesis.
Bibliography


