Tailgut cyst:

**Introduction**

Tailgut cysts, also named retro-rectal cystic hamartomas, are rare congenital lesions that develop from the remnant of the post-anal primitive gut, most common in the retro-rectal space (1,2). In the embryonic period, the caudal extension of the hindgut is the tailgut cyst, that normally regresses by the sixth week of gestation. So, if the embryonic hindgut failures in regression, the tailgut cyst is formed (3, 4).

However, have evidence of a tailgut cyst associated with thyroid tissue and meningothelial proliferation with prominent psammoma bodies, which is rare, because the elements that are normally anecdotally identified in association with tailgut cyst are pancreatic acini, islets of Langerhans and glomus bodies. So, there is no consensus of the etiology of tailgut cysts (5).

The retro-rectal space is found in front of the sacrum and behind the rectum, and the lateral walls is surrounded with the ureters, iliac blood vessels, sacral nerves, and lateral stalks of the rectum, which make difficult a surgical approach of the space since important structures are located there (6).

The incidence is estimated 1 in 40,000, and it can be diagnosed in all ages, but a predominance in middle-aged women is described in the literature (7, 8, 9). The proportion of female to male patients is 3:1, but needs to be considered that the females go more often in gynecological consultations, so probably some cases in the male population goes misdiagnosed or undiagnosed (8).

Most patients are asymptomatic, and rectal and lower back pain plus constipation and urinary symptoms are the most common clinical manifestations (10). The symptoms are atypical and are cause either by the local pressure of the cyst in the surrounding structures or by infection or malignant transformation.

The cyst can result in complications such as infection, bleeding and rarely malignant degeneration like adenocarcinoma and carcinoid tumors (11). The pathogenesis of the malignant transformation of tailgut cysts remains unknow, but some evidence shows that hormones like estrogen and ghrelin have some responsibility in the origination of the cancer (12). The majority of tailgut cysts are benign, and about 30% of the reported cases in the literature were malignant (13).