Possible clinical and imaging diagnosis

Case 353

4. Tail gut

【Progress】

Because full-time gynecologist does not work in our hospital, she introduced to a local hospital where gynecologists and gastrointestinal surgeon usually serve patients with pelvic disease.

【Discussion】

Tailgut is termed as cystic hamartoma or duplication cyst. Tailgut is a remnant of original tail gut that should disappear or be absorbed at fetal periods of 8 weeks (1, 2). It remains as a multi-cystic lesion at the site between rectum and sacrum.

The cyst includes mucin, blood, and serous fluids. Tailgut is often found in middle-aged woman of 40ies to 60ties (1-4). It is found accidentally in half of the Tailgut cases, namely with no symptoms. Symptomatically, they are found appealing pelvic pain or constipation (1-4).

Pathology of tailgut reveals it composes of ciliary columnar cells, mucin-producing columnar cells, transitional cells, and squamous cells. It produces serous or mucinous fluid (5).

As imaging differential diagnosis, it might mislead to make diagnosis of complication cyst or mucinous cystadenoma from ovary origin, or endometriosis. Further, as it emerges behind sacrum, other tumors such as chordoma and cystic neurinoma are listed (6-9). It is reported tailgut develops into malignancy with the incidence of 6 to 26% when it comes to contain blood or its mural becomes thickened (5).

As management, surgical resection from laparoscopic approach or perineum approach with Jack knife posture, is recommended (5, 10).

In our case, abdomen CT depicted a multi-cystic disease composing of homogeneous iso-attenuation cyst, low-attenuation cysts with calcification between rectum and sacrum in Figs 1-3. Pelvic MRI depicted a multi-cystic lesion whose signal intensity differs in each is depicted on MRI with T1WI and fat suppression T2WI (Figs 6-7), indicative of different fluids quality. ADC values of fluids vary: 0.524-0.644-1.204. The fluids of low values of ADC indicate mucin or bloody, compatible fluids with tailgut. Our patient is 20ies with abdominal pain. She hesitates to receive surgical treatment since her symptoms abated.

【Summary】
We presented a twenty-year-old female presented in our hospital for abdominal pain and vomiting. Abdomen CT and MRI depicted a muti-cystic lesion between rectum and sacrum. Each cyst contains different quality fluid. ADC values vary from 0.5 to 1.2, indicative of mucin, serous, or bloody. It is borne in mind that tailgut is a remnant of primitive bowel indicative of duplication cyst or cystic hamartoma presenting between sacrum and rectum with malignant potential in less than 25%. As fluid quality in each cyst varies from mucin, serous and bloody, corresponded to different ADC values from 0.5 to more than 1.2.

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