Case Report
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Clinical Fact of Rectal Duplication with gastric heterotopy

Un cas clinique de duplication rectale avec hétérotropie gastrique Rapport de cas

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Abstract

Enteric duplication could occur through the entire alimentary tract. A case of rectal duplication cyst with heterotopic gastric mucosa in a chid is described. MRI scan is shown useful in the diagnosis of the duplication. The treatment is the complete local resection of the rectal duplication.

Key words: duplication, rectal, MRI, surgery

Résumé

La reproduction entérique pourrait se produire à travers toute l'étendue alimentaire. Nous décrivons le cas d'un kyste de la duplication rectale chez un enfant avec la muqueuse hétérotropique gastrique. La scanographie MRI s'avère utile dans le diagnostic de la duplication. Le traitement est effectué par la résection complète de la duplication rectale. ***Mots-clés:*** duplication, rectal, MRI, chirurgie.

Introduction

Duplication of the digestive tract is rare malformation, and the rectal localization represents 5% of this pathology. The existence of a gastric heterotopy on this localization is exceptional since only 8 cases of this association were reported in the literature.[1-8] The goal of this paper is to show the interest of the MRI for suggesting the diagnosis and orienting towards the right therapeutical approach.

Case report

A 12 years old female patient was followed for urinary infection. The symptomatology occurred 18 months earlier after a traumatism episode of lumbosacral. The child presented pelvic and rachial pains without any sensory-motor disorder. The clinical examination found an extra-pubic sensitivity, and the rectal touch perceives a retro rectal mass. The face and profile x-rays of both, the dorsolumbar rachis and the basin did not show any particular signs. The ultrasound of the abdominopelvic cavity showed a right latero-uterine cystic constitution of oval and confined shape, it was 4.5 cm and probably originating from ovaries.

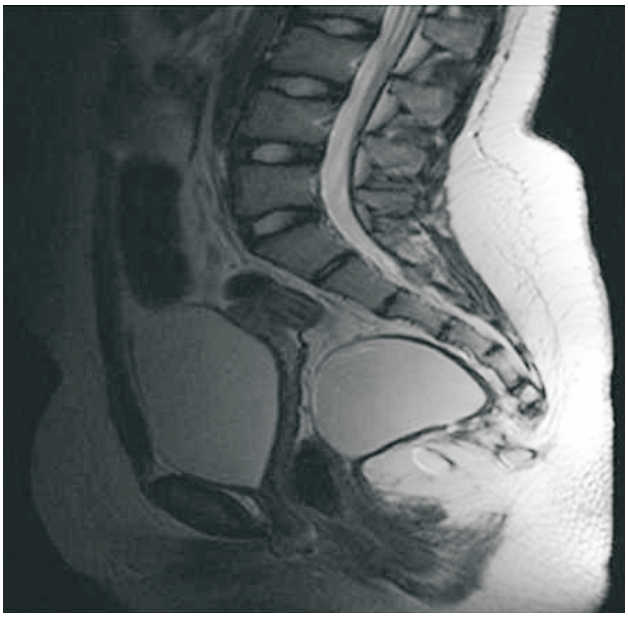


Fig. 1: The pelvic T1 weighted MRI in sagittal slice showing presacral mass with rectal compression

The pelvic lumbar MRI showed an ovoid mass

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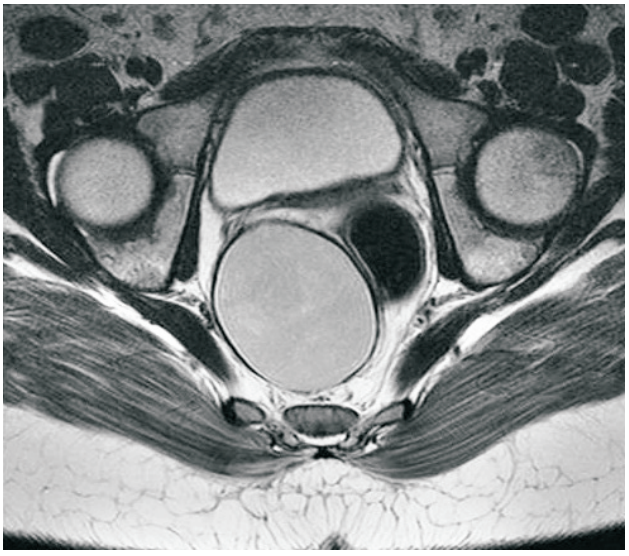


Fig. 2: The pelvic T1 weighted MRI in transversal slice showing presacral mass with cystic content.

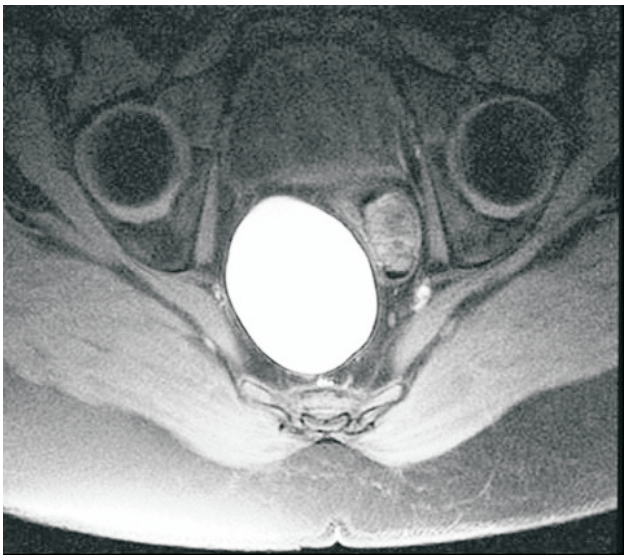


Fig. 3: The pelvic T2 weighted MRI in sagittal slice

at the level of the pre-sacral region, measuring mass 65/50 mm, presenting hyper-signal content in T1 and T2 weighted images with a regular thickness wall of 2 mm (Figures 1, 2 and 3). The mass repulses towards the left of the rectum and respects the neighbouring structures. The uterus and two ovaries were normal as well as the lumbar spine. The child was operated through a sagittal posterior access with excision of the coccyx, noticeable by a viscous and a thick wall mass of greenish contents reminding the meconium. The exeresis consists of subtotal resection of the mass with leaving the adjacent part of the rectum. In simpler terms, a mucosectomy was achieved. The anatomico-pathological examination of the removed masse supported a digestive duplication with a muscular wall of two layers and a mucous of gastric type. The post-surgery evolvement was simple; the ultrasound did not reveal any particular signs even after a recession of 6 months.

Discussion

The digestive duplication is a congenital abnormality which could affect any part of the digestive tract, but the rectal affection localization is the least frequent. Presently, 70 cases of rectal duplication are presented in the literature.[9] The first case was reported by Middeldorf et al in 1885.[10] It was about a lesions which could be a cystic or tubular showing three characteristics such as proposed by Ladd and Gross:[11] the first is a contact with the normal digestive tract, communicating or not; the second is containing a wall with double muscular layers; and the third is a mucous of digestive type.

The gastric heterotopy is a full part entity since it could cause ulcerations and bleedings,[12] the other tissues might exist notably pancreatic and respiratory.[5]

Generally, the rectal duplication fills the retro-rectal space, but anterior localizations are also found;[13] it outfits the shape of a simple presacral cyst as it could be associated with other and more complex malformations (sacral agenesis or anu-rectal malformation): the Currarino syndrome.[14-15]

The clinical symptomatology is variable according to the size of the duplication, and its localization. It may compress of surrounding viscera producing constipation, rectal prolapse, urinary retention; or it heterotopic gastric mucous may ulcerate and bleed torrentially. Cases of rectal duplication manifesting as a peri-anal fistula or intractable abscess with malignant degeneration have been reported in adult.[13]

The differential diagnosis includes sacrococcygeal teratoma, anterior meningocele, dermoid cyst and the Crohn disease (when it presents as fistulas).[12] Magnetic resonance imaging allows precise diagnosis and its exact association.[9] Scintigraphy, using TC99 is another useful

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diagnostic tool when a gastric heterotopy is suggested.[12]

The goal of the treatment is to avoid complications; the ideal technique consists of a total resection of the duplication without damaging the sphincters or rectum. The access depends at first on the level of the tumour: sagittal posterior access, trans-coccygeal access, trans-anal access or through abdominal access have been used.[9,13] Mucosectomy may be preferred so as to avoid rectal infarction if the cyst and the rectum have a common wall.

Rectal duplication with gastric heterotopias is a full entity with variable presentation and complications. The diagnosis is suggested by magnetic resonance imaging and confirmed by histological investigation. Total excision is the preferred form of treatment.

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