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Appendicular duplication revealed during peritonitis, about one case at the Amissa BONGO Regional Hospital Center of Franceville (CHRABF) Gabon

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Abstract
Appendicular duplication is a very scarce malformation. It occurs exceptionally in children and rarely in adults. The discovery of this pathology was fortuitous during a laparotomy or laparoscopy of a patient who had benefitted from a laparotomy indicated in front of an appendicular peritonitis.
Keywords: *Duplication, appendicitis, laparotomy.*

Introduction

Digestive duplications are rare congenital malformations. Appendicular duplication is exceptional, with a reported incidence of 0.004 [1.2]. This affection appears most often in the first years of life and some forms may remain asymptomatic and are expressed only in adulthood. Very few studies have been reported on this issue. Thus we report the observation of a patient who was admitted to the emergency room for appendicular peritonitis.

Patient and Observation

This is a 12 year old patient admitted with diffuse abdominal pain, liquid stool emission, fever 40°C, progressing for 8 days, blood pressure 101/54 mmHg. The hemodynamic was stable. Clinical examination revealed an alteration in the general state of health and abdominal contracture.

The blood count notes an infectious syndrome: a neutrophilic hyperleukocytosis 18000 mm 3(3500-10000), a microcytic anaemia 8 g / l(13-17) and a haematocrit 34.34%(40-54).

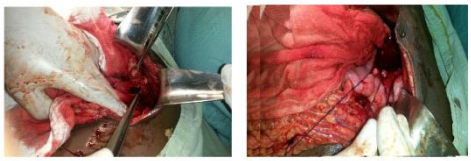
Blood biochemistry revealed functional renal insufficiency: urea at 16mmol/l (1.7-8.3) and creatinine at 250 µmol/l (15-115), CRP 150 mg / l/. The other parameters (glycaemia, transaminases, ionogram) were within the usual values.

The abdominal echography showed an abundant abdominal effusion and agglutination of the dilated small cecal coves around the cecum and a thickening of the vesicular wall.

Pre-operative resuscitation was performed in order to stabilise the patient, a filling to restore blood volume and antibiotic therapy.

Surgical Intervention

A laparotomy was carried out and revealed a purulent effusion of 1200 cc, two appendicitis: one in the latero-coecal position and the other in position on the oblique strip. Two conventional appendectomies were performed (figure 1). The abdominal cavity was abundantly rinsed with saline, followed by drainage. During the operation, an is o group O-positive blood transfusion was performed.



Images 1 and 2: Double appendicitis

Post-operative follow-up in the intensive care unit

Therapeutic management of sepsis is implemented

- Oxygen therapy 3 l/mn
- A broad-spectrum antibiotic therapy (amoxicillin - clavulanic acid, gentamycin, metronidazole)
- Heparin therapy to prevent the risk of vascular embolism and disseminated vascular coagulation.
- An analgesia
- An infusion to correct electrolyte imbalances

Evolution

The general state slowly improved with however a persistence of hyperthermia for 5 days.

Antibiotherapy, analgesia and heparin therapy continued throughout the hospitalisation.

At day 9, all the biochemical and haematological parameters were within the usual values and the general state was satisfactory on the tenth day.

Anatomical Pathology

Histological examination showed simple acute appendicitis with inflammatory infiltrate without any sign of malignancy.

Discussion

Appendicular duplications are rare congenital malformations and poorly described in the literature. Fewer than 100 cases have been reported since it was first described in 1982 by Picolo[(1-4)]. Collins reported four cases (0.0008%) of congenital genesis in a study of 50,000 specimens of the human worm-like appendage[(5)]. This condition occurs most often in children, but rarely in adults. CALOTA and AL reported one case in a 45 year old patient[(6)]; Younos A and al reported one case at 33 years of age. The causes of this anomaly are not well established. Wallbrige has proposed a classification of its own, an appendicular duplication allowing three types to be distinguished[(7)]: Type A corresponding to a complete or partial duplication whose only basis is common, the partial forms are less frequent than the tubular forms. Type B is the most common type (60%) and has two sub-groups: Type B1 where the two appendices are symmetrically arranged in relation to the Bohouin valve; Type B2 where the appendix is in the usual latero-coecal position and the second hypoplastic located on a colonic strip at a greater or lesser distance from the first (*Taenia coli* type). Type C corresponds to a coecal duplication where each coecum has its own appendix. The treatment is surgical by laparoscopy or in the open air, by performing an appendectomy[(6-7)].

Conclusion

Duplication of the appendix is a rare malformative anomaly that occurs at an early age and exceptionally in adulthood. A careful examination of the coecum in front of any acute appendicitis is necessary in order not to miss an appendicular duplication.

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