

## INVERTED CAECAL APPENDIX: DILEMMA IN DIAGNOSIS AND TREATMENT - A CASE REPORT

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*Caroline Beling*

<http://lattes.cnpq.br/5114783935854302>

*Aline Durão de Andrade Pequeno*

<http://lattes.cnpq.br/9825303351084755>

*Ana Paula Pontes Jacques*

<http://lattes.cnpq.br/2224231044134976>

*Aniela Rodrigues Gomes de Barros*

<http://lattes.cnpq.br/2274974979109927>

*Bianca Ribas Lee Santana*

<http://lattes.cnpq.br/6802697245465026>

*Isabella Georges Pelógia Farah Trigo*

<http://lattes.cnpq.br/5083929370726427>

*Luana Poubel Marques da Silva*

<http://lattes.cnpq.br/6779414416369685>

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## INTRODUCTION

The inverted appendix is an uncommon finding that affects 0.01% of adults. It is more prevalent in females, in the 4th decade of life. Its idiopathic occurrence is described in the literature and may be associated with other pathologies. Its characteristics can generate diagnostic doubts because they are similar to a neoplastic polyp, and due to its low prevalence, further studies and the creation of *guidelines* for better patient follow-up and treatment are necessary.

## MATERIALS AND METHODS

A 47-year-old female patient sought medical attention for dyspepsia and chronic anemia. She was referred to general surgery, where colonoscopy was requested, which showed a polypoid formation in the cecum, suspected of being an inverted appendix or mucocele; a CT scan of the abdomen showed a 15mm oval cecal appendix, which may correspond to a mucocele. Magnetic resonance imaging also showed parietal thickening near the appendicular ostium in the cecum, suggestive of a partially inverted appendix, with the rest of the cecal appendix preserved. Given the infrequent diagnosis and suspicion of mucocele, laparoscopic right colectomy was indicated under general anesthesia, with primary ileotransverse laterolateral anastomosis. Histopathology showed a low-grade mucinous neoplasm.

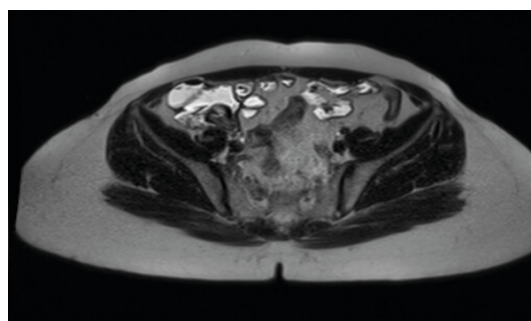
## RESULTS

The inverted appendix is usually asymptomatic, but can present as acute appendicitis, chronic abdominal pain and melena. Its pathophysiology is thought to involve abnormal peristalsis secondary to irritation, predisposing anatomical factors including a mobile mesoappendix, a large appendicular orifice and underlying masses. Associated pathological findings include

endometriosis, adenomas, adenocarcinoma and mucinous neoplasms. When found in patients with a history of previous abdominal surgery, invagination of the appendix is suggested as a surgical maneuver, sometimes used in conventional appendectomy. In healthy patients without previous appendectomy, even if asymptomatic, further investigation should be carried out to exclude other etiologies.

Although it is a benign anatomical alteration, it mimics a neoplastic process both radiologically and in colonoscopic examinations, making confirmation appropriate histopathology. However, attempted polypectomy can result in perforation or bleeding, requiring an emergency surgical approach.

The scarcity of literature related to the pathology makes it necessary to create guidelines for the investigation, follow-up and treatment of inverted appendix.



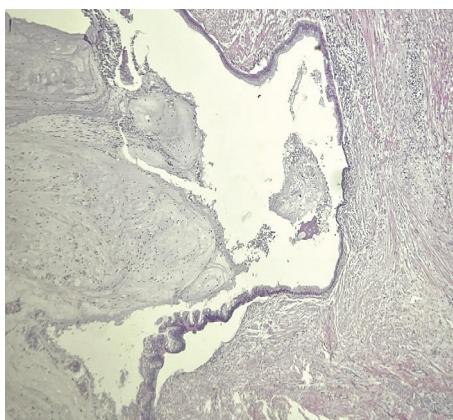
1: Enterotomography showing invagination of the appendix



3: Surgical specimen: invaginated appendix



2: Surgical specimen: inverted appendix, next to the ileo-cecal valve



4: HE (100x): low-grade appendicular mucinous neoplasm permeating the muscular layer proper of the organ.

## CONCLUSION

The inverted appendix is a typically benign condition and its occurrence in adults is extremely rare. The incidental finding on colonoscopy or imaging tests is the most common form of presentation. Surgical indication in most cases occurs due to diagnostic uncertainty and difficulty in excluding associated lesions as the cause of intussusception, so a formal resection may be the best treatment option.

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