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Case Report

Mucosa-associated lymphoid tissue lymphoma of the appendix stump: a case report

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ABSTRACT

Primary lymphomas of the appendix occur in 0.015% of all gastrointestinal lymphomas. The most common manifestation is acute appendicitis secondary to luminal obstruction. The most common is immunophenotype B low-grade non-Hodgkin lymphoma. A 53-year-old male, with a previous three-week surgical history due to acute appendicitis, histopathological report of acute appendicitis and lymphoid hyperplasia. Later, he was admitted, with abdominal pain in the right iliac fossa, an abdominal ultrasound and simple abdominal tomography were performed, with suspicion of residual abscess. Surgical intervention is decided, observing paracecal tumor in the emergency site of the appendix, the tumor is removed. Pathological study that reports an appendicular base infiltrated by mucosa-associated lymphoma. The diagnosis of appendicular tumors is mostly, intraoperatively incidental. It is necessary to have the diagnostic possibility when performing an appendectomy, since it changes the prognosis and treatment of the patient.

Keywords: Appendicitis surgery, Stump appendicitis, Mucosal associated lymphoma, Appendicitis

INTRODUCTION

Appendicular tumors have an incidence of 0.4% of all digestive tract tumors, they constitute a small group within the pathology of this organ and their importance lies in the fact that, exceptionally, they are diagnosed before or during surgery. Primary lymphomas of the appendix are rare, occurring in 0.015% of all gastrointestinal lymphomas.[1-4] The average age for the diagnosis of gastrointestinal lymphomas is 55 years, in the cecal appendix, they are found in the second and third decade of life. They are more common in the male gender. The most common manifestation is acute appendicitis secondary to luminal obstruction.[1,5] The histopathological and immunohistochemical study is mandatory to make the diagnosis, it is necessary to rule out its origin elsewhere in the body. Cases have been reported in children, the most common of which is Burkitt's lymphoma, while in adults it is more common to find large cell non-Hodgkin lymphoma and immunophenotype B low-grade non-Hodgkin. lymphoma.[1]

CASE REPORT

This is a 53-year-old male patient, who denies an allergic, traumatic or transfusion history. Surgical history 3 weeks previously due to acute appendicitis, which warranted surgical management with open appendectomy. Histopathological report of the surgical specimen of said intervention where a cecal appendix with measurements of 4×1 cm is described, which shows opaque and

congestive serous, partially covered by fine fibrinoid-looking plaques, when cutting the lumen is occupied by abundant fecal material, with a thick wall of 0.3 cm, with diagnosis of acute suppurative appendicitis phase II, as well as findings of lymphoid hyperplasia. Three weeks later, he started with abdominal pain located in the right iliac fossa, without nausea or vomiting, for which he went for an evaluation. Upon admission, an ultrasound scan was carried out, where a hypoechoic collection with central hyperechoic areas suggestive of gas was identified, with an estimated volume of 19 cc towards the pericecal region associated with fat edema, findings compatible with a pericecal collection (Figure 1).

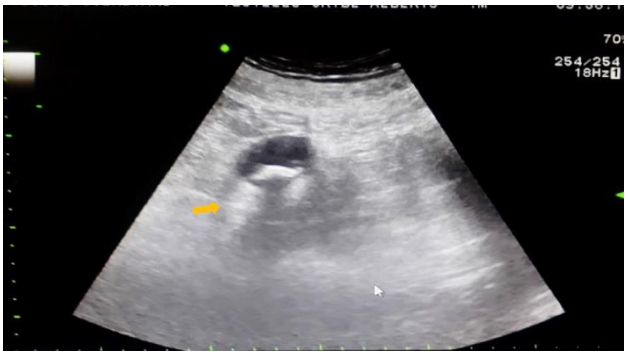

Figure 1: Abdominal ultrasound demonstrating the presence of a hypoechoic collection with central hyperechoic areas suggestive of gas, with an estimated volume of 19 cc, compatible with a pericecal collection.

A simple abdominal tomographic study was carried out, where the presence of a hypodense area in the right iliac fossa lateral to blind, with a well-defined wall was evidenced (Figures 2).

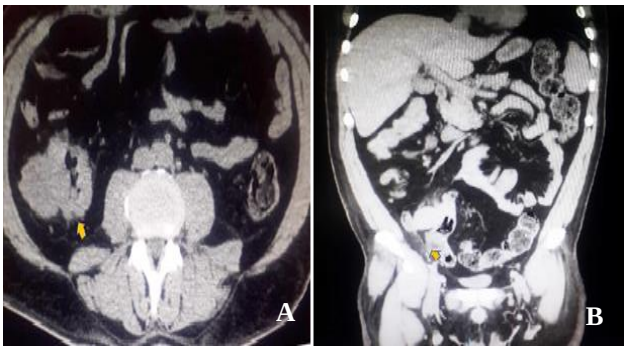

Figure 2: Abdomen tomography with oral contrast in (A) axial section which shows a collection (B) coronal section with the presence of a well-defined hypodense area, with heterogeneous content located in the right iliac fossa.

Due to suspicion of residual abscess, the need for surgical intervention was decided, performing exploratory laparotomy, with a paracecal tumor found in the appendix emergency site, approximately 5×5 cm, edematous; the tumor is excised and sent to pathology (Figure 4). A histopathological study of a second surgical intervention was obtained that reports the base of the appendix infiltrated by mucosal associated lymphoma (MALT) that diffusely infiltrates the wall and peripheral fat, with surgical limits in contact with the lesion. Patient with adequate postoperative evolution, without complications.

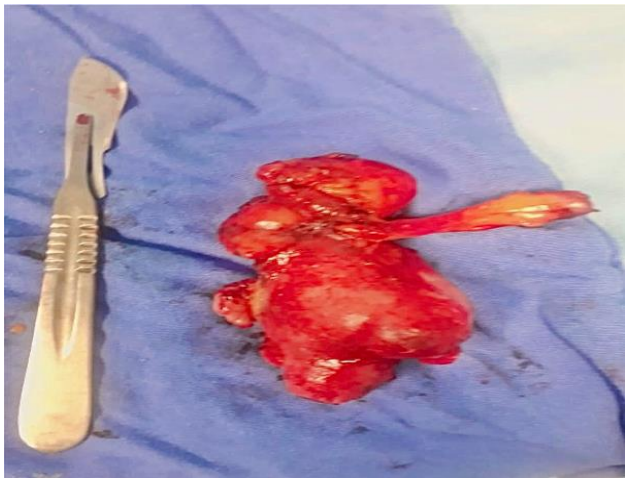

Figure 3: Surgical specimen obtained from a paracecal tumor in the emergency site of the appendix, approximately 13×2.5 cm, edematous, rubbery in consistency.

DISCUSSION

Gastrointestinal tract lymphoma accounts for 4-20% of non-Hodgkin's lymphomas and 30-45% of extranodal cases.[6] The stomach is most commonly involved, followed by the small intestine, pharynx, colon, and esophagus. Lymphoma of the ileum is the most common extragastric site. Primary lymphomas of the appendix are rare, occurring in 0.015% of all gastrointestinal lymphomas, this makes it an extremely rare entity.[7] In a series of cases reported by the Epidemiological Surveillance of the National Cancer Institute, United States, between 1973 and 2003, only 1 case of appendicular lymphoma is reported in 7,970 cases studied.[8] Malignant neoplasms of the cecal appendix have marked differences in behavior, depending on their histological type and subtype, as well as their size. In most cases, appendicular lymphomas, like the rest of the appendix tumors, manifest with a picture of acute appendicitis, other less frequent symptoms are anorexia, weight loss, gastrointestinal bleeding and intussusception.[5,7] In In our case, the presentation agrees with the most frequent one described in the literature, a picture of acute appendicitis, the age of presentation is according to that reported in the literature, the sixth decade of life, however, the histological type found does not agree with the casuistry reported, since appendicular lymphomas appear in the population between the second and third decade of life. Surgical conduct in neoplasms of the cecal appendix is quite contradictory and there is still no agreement that allows to guide the surgeon on which is the ideal treatment, that is, in the case of appendicular

tumors larger than 2 cm, tumors that infiltrate the mesoappendix, which compromise the cecum or that present a high mitotic index, it is necessary to perform right hemicolectomy with lymph node dissection, while other studies recommend that simple appendectomy with stump closure should be performed, reserving definitive treatment once the histopathological result is obtained.[5,9,10] In the present case, it is striking that although at first the finding of a neoplasm or tumor in the inflamed appendix was not reported, later after a period of 3 weeks a significant tumor has developed, probably having the proliferative stimulus as surgical trauma, a fact that has not been described in the reviewed literature. It has been described that immunocompromised patients, especially HIV-positive patients, can present lymphomas of atypical location, so it is necessary to perform an ELISA and western-blot study as part of the diagnostic approach, said approach was performed in the present case, resulting positive for HIV infection.[5]

CONCLUSION

Primary lymphomas of the appendix are extremely rare entities, in most cases the diagnosis is made incidentally postoperatively. The definitive diagnosis is made with histopathological analysis. It is always necessary to bear in mind the diagnostic possibility when performing an appendectomy, since this changes the prognosis and treatment of the patient, in relation to the clinical stage and the histological type of the neoplasia found.

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