Appendiceal Diverticulitis: An Unique Mimicker of Acute Appendicitis. A Case Report.

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Introduction:

Appendiceal diverticulosis is uncommon, with reported incidence occurring between 0.004% and 2.1%. There are two types of appendiceal diverticula, acquired and congenital. Congenital diverticula are rare and account for approximately 3% of appendiceal diverticulosis. They are usually solitary and occur along the antimesenteric boarder. Acquired accounts for the majority of cases and is thought to arise from weakness in the appendiceal wall from increased intraluminal pressure due to obstruction from fecolith, inflammation, or neoplasm. Risk factors for developing acquired diverticulitis include male gender, age >30 years old, cystic fibrosis, and Hirschprungs. It has no association with colonic diverticula. Appendiceal diverticulitis have higher rates of perforation (27-66%), mortality (30%) and malignancy (30 times greater) compared to routine acute appendicitis.

Typically, appendiceal diverticulitis has a prolonged course with symptoms lasting up to two weeks. Patients also tend to have multiple previous episodes of right sided abdominal pain prior presentation. Appendiceal diverticulitis also tends to occur in individuals over 30 with normal to low level white blood cell counts, which is atypical for acute appendicitis. It is possible to distinguish between diverticulitis from acute appendicitis on imaging, however, it tends to be difficult as it is common for diverticulitis to present as acute inflammation.

It is difficult to diagnose pre-operatively as it typically presents as acute appendicitis. It is important to distinguish from acute appendicitis due to higher rates of perforation and association with underlying malignancy. This case report is one example of an incidentally found appendiceal diverticulitis.

Case Report:

Our patient is a 66 year old male who presented to the emergency department with a 1 day history of progressively worsening right lower quadrant abdominal pain and anorexia. His work up was remarkable for a white blood cell count of 9.2 x10(3) /mcL and CT scan showing a fluid filled, dilated appendix up to 1.5 cm with incidental diverticulosis of the ascending colon and cecum. The patient was taken to the operating room for a laparoscopic appendectomy. The appendix was noted to be inflamed with several nodules present. Due to the degree of inflammation, an ileocectomy was needed at a minimum but with concern for potential underlying malignancy, the decision was made to proceed with a right hemicolectomy. He tolerated the procedure well and was discharged on post-operative day three. Pathology revealed AD without evidence of malignancy.

Discussion:

While appendiceal diverticulitis is rare and is considered by some to be a variant of acute appendicitis, it is associated with higher rates of perforation and neoplasm. Due to this, the ability to differentiate between acute appendicitis and appendiceal diverticulitis pre-operatively through closer review of imaging, understanding the differences in disease progression would help to guide better intra-operative management as well as proper post operative care for patients. Reviewing cases such as this one can help to achieve this.