Diverticulitis of the Appendix: Rare but Real

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Abstract

Diverticulosis of the appendix is a very rare entity that clinically presents similar to acute or chronic appendicitis. Diagnosis is almost always made at time of appendectomy or on pathology.

INTRODUCTION

It was first described by Kelynack in 1873 and classifies it as acquired and congenital. Acquired is rare cause of acute appendicitis with a range of 0.004% to 2.1% [1]. Congenital is even rarer with few case reports presented and an incidence of 0.014% [1]. Treatment of appendiceal diverticulitis and diverticula are the same as appendicitis, but must be done more urgently as there is an associated with perforation and neoplasm. The neoplasms usually seen are carcinoid and mucinous adenomas. We now present a case from our Community Hospital.

PRESENTATION OF CASE

We present the case of a healthy 30 year old female admitted with a two day history of abdominal pain. The pain gradually shifted to the right lower quadrant, with no other associated symptoms. Her physical exam was typical for acute appendicitis. She had no leukocytosis, however she had radiographic findings consistent with early acute appendicitis. She underwent a Laparoscopic Appendectomy; the tip of her appendix was enlarged and inflamed while the base was found to be mildly hyperemic. The patient had an uneventful recovery. Upon histologic evaluation, her appendix had Goblet cell hyperplasia in two large diverticuli at the distal aspect with polymorphonuclear infiltration (Figure 2) suggestive of acute appendiceal diverticulitis. No occult neoplasm was demonstrated (Figure 1).

DISCUSSION

Appendiceal diverticulitis is mainly diagnosed during surgery or on pathology, but rarely on preoperative imaging. In review of the literature Abdullgafer, Sohn, and Collins reporting 0.014%, 3.7% and 1.4% respectfully [4,12,13]. Histologically 2 types are recognized: acquired and congenital. Acquired diverticuli are usually seen at the distal end of the appendix. They are usually range from 2-5 mm and described as pseudo diverticuli, as they only the mucosa and sub mucosa herniate through a defect in the muscle layer. A herniation of all three layers is seen in the congenital form, which is located on the antimesenteric edge of the appendix. Our patient’s appendix was pseudo diverticuli thus being classified as acquired diverticuli [14].

Diverticuli can be seen with ultrasound, but is highly dependent on the sonographer’s skill. Ct scan can be helpful by visualizing the inflamed diverticulum. Non-inflamed are difficult to locate, unless they are unusually large.

While it clinically mimics acute appendicitis, it is associated with an increased incidence of appendiceal neoplasms and a
higher risk of perforation. Yamana et al., reports a 33% risk of perforation compared to 9.8% seen in usual appendicitis [5]. Along with an increased rate of perforation, a higher rate of neoplasm is seen, especially mucinous adenomas and carcinoid tumors. The increased risk is variable with Dupre et al., reporting 47.8% while Marcacuzco only reported 7.1% [2,15] Hence a cautious approach since diverticuli are commonly missed and rupture of the appendix can lead to peritoneal seeding.

**CONCLUSION**

Appendiceal diverticulitis while rare should be listed in the differential diagnosis for every patient with right lower quadrant pain. Accurate and cautious appendectomy is needed to obtain high quality specimen as associated neoplasm can be present. Hence the strong opinion that even if diverticuli are found incidentally a prophylactic appendectomy should be performed given a proven increased risk of perforation and co-existing neoplasm.

**REFERENCES**