IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 17, Issue 01 Ver. I January. (2017), PP 34-37
www.iosrjournals.org

EpiploicAppendagitis: A Rare Case Report

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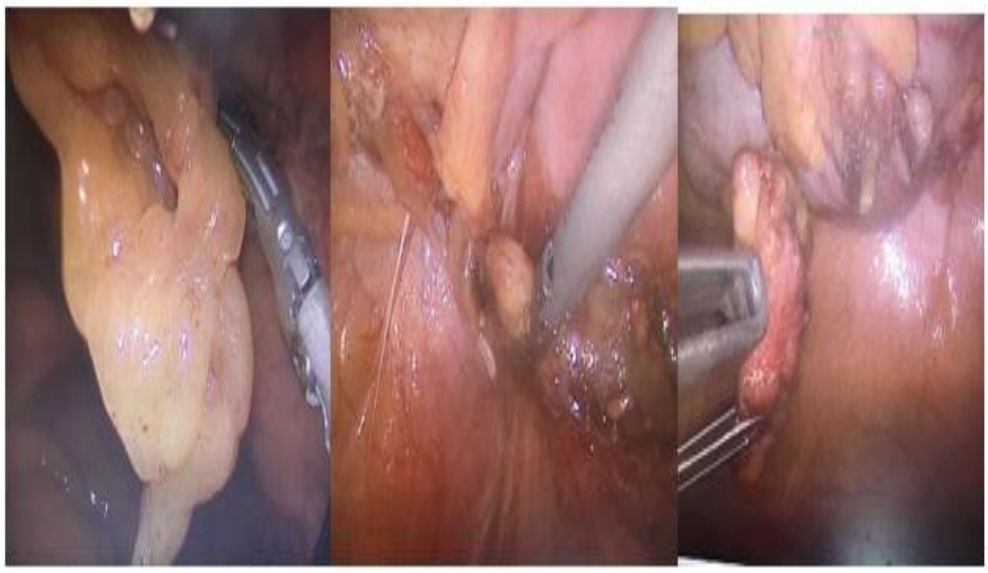
I. Introduction

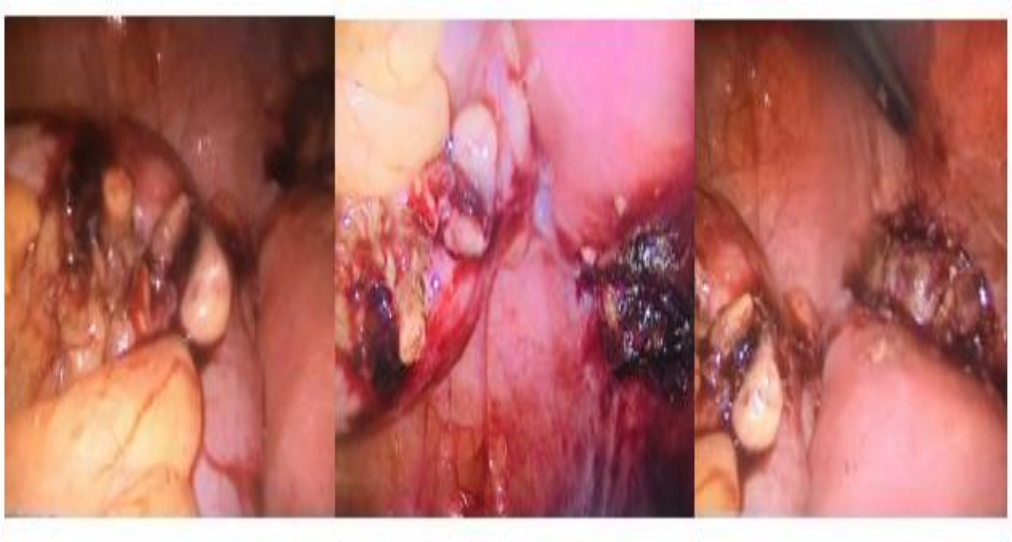
Epiploic appendagitis, also known as appendicitis epiploica, hemorrhagic epiploitis, epiplopericolitis, or appendagitis, is a benign and self-limited condition of the epiploic appendages. Epiploic appendages [EA] are small outpouchings of fat-filled, serosa-covered structures present on the external surface of the colon projecting into the peritoneal cavity. Each appendage encloses small branches of the circular artery and vein that supply the corresponding segment of the colon. Subserosal lymphatic channels either terminate in a lymph node within an appendage or loop through its base en route to mesenteric nodes. They have three morphologically different types: stalked appendices and others that are attached with their base in longitudinal and vertical direction to the colon axis. Although they are located throughout the colonic wall, occasionally they have also been found in the small bowel and in the parietal peritoneum. Their function is still controversial, they are presumed to serve a protective and defensive mechanism similar to that offered by the greater omentum and may have a role in colonic absorption. They may also act as a cushion, protecting colonic blood supply during peristalsis. Although little has been written about epiploic disorders (inflammation, torsion, necrosis, etc.) Inaccurate diagnosis can lead to unnecessary hospitalizations, antibiotic therapy, and surgical intervention.They occur more frequently than expected. Thus, they should be kept in mind.

II. Case Report

A 41-year-old female was admitted to the Indraprastha Apollo Hospital New Delhi, complaining of severe colicky pain in the left lower quadrant on and off in nature for the last 2 days. Her past medical history was unrewarding except for controlled hypothyroidism. At physical examination, the patient was tachycardic (110 beats per minute), and exquisite tenderness and rebound were found in the left lower quadrant. White blood cell count was 12,600, and the rest of the laboratory tests were within normal limits. Abdominal X-rays showed a dilated sigmoid colon, and a CT scan suggestive of epiploicappendagitis.

III. Surgery





An emergency diagnostic laparoscopic procedure was performed under general anesthesia. After establishing the pneumoperitoneum, a 10-mm 0° laparoscope was introduced through the umbilicus. The peritoneal cavity exploration revealed adhesions inflamed left sided epiploic appendages adhere to uterus and pelvic wall present and scanty yellowish exudate in the left pelvic area. Two additional 5-mm ports were placed in the right lower quadrant and in the right flank, and intestinal forceps were used to manipulate the bowel gently, adhesions were released and excision of inflamed epiploic appendages were done, Its pedicle was cauterized using a bipolar electrocautery, Excised specimen was sent for histopathological examination which subsequently confirmed the diagnosis of epiploic appendagitis. The following morning, the patient passed flatus and tolerated a liquid diet followed by soft and normal diet. She was discharged 48 hours later and remains asymptomatic.

IV. Discussion

Epiploic appendages [EA] First anatomically described in 1543 by Vesalius, they were not given any surgical significance until 1853 when Virchow suggested that their detachment might be a source of free intraperitoneal bodies, The term Epiploic appendagitis was introduced by Lynn et al. in 1956 and describes an uncommon diagnosis which is associated with rapid onset of localized left or right lower quadrant pain. Due to the lack of pathognomonic clinical features, the diagnosis is difficult, Acute inflammation, spontaneous torsion, fat necrosis, infarction, and calcification occur in the epiploic appendages, as well as enlargement due to lipomas, malignant tumors (including metastasis), and incarceration in hernias. The incidence of torsion and necrosis is almost impossible to estimate. Aronsky et al reported that abdominal fat tissue necrosis (including the omentum) occurs in 1.1% of patients with abdominal pain. Some authors have found the disease to be more common during the 4th and 5th decades of life, while others cannot find a preferred age group. A slight male preponderance has been described in a review by Carmichael and Organ. Primary epiploic appendagitis with subsequent necrosis is caused by torsion with compromise of its blood supply or by venous thrombosis of its draining system. It tends to occur in the sigmoid colon in more than 40% of the cases. Factors such as obesity and a narrow epiploic appendix base have been implicated in the etiology of torsion, whereas exertion has been related to events of venous thrombosis. Epiploic appendagitis has no specific manifestations. Focal abdominal pain is the most important symptom, and, depending on the localization of the affected appendage, the clinical picture might resemble that of colonic diverticulitis, acute appendicitis, a gynecological disorder, or even acute cholecystitis. As Shvetzov states referring to the torsion of an EA, "It occurs under the mask of other emergencies." Abdulzhavadov describes "two new characteristic symptoms of this disease": 1) pain appearing or intensifying when the abdomen is thrust forward and in mild tapping on the healthy side of the anterior abdominal wall with the fingertips, and 2) intensification of pain when the skin fold on the abdomen is pulled upward. This, of course, needs to be confirmed by others. Although pain is acute in most cases, Chatziioannou et al have reported a patient with abdominal pain of three weeks' duration that was caused by a necrotic EA. In the majority of patients, there are no other significant signs or symptoms, although nausea, vomiting, fever and a palpable mass have been mentioned frequently. Asymptomatic infarctions are sometime found incidentally as loose bodies at laparotomy performed for other reasons. Epiploic appendagitis has been, until recently, exceptionally diagnosed before laparotomy due to the fact that the clinical picture is non-specific and confusing. However, Shvetsov et al claim they have been able to diagnose two-thirds of their patients on clinical findings.

Laboratory tests are also non-specific and may reveal only a mild increase in the white blood cell count and rarely a shift to the left.

V. Conclusion

Epiploic appendagitis is a surgical diagnosis with clinical features that may guide the surgeon to the right pre-operative diagnosis. In patients with localized, sharp, acute abdominal pain which is not associated with other symptoms like nausea, vomiting, fever or typical abdominal laboratory values, the diagnosis of EA should be considered as a rare differential diagnosis to sigmoid diverticulitis and appendicitis. Although infrequent until now, with the increase of primary abdominal CT scans and ultrasound, which have become standard diagnostic imaging tools, EA will be diagnosed more frequently in the future. This study describes the clinical features and management of EA as a possible guide to the surgeon for the correct diagnosis& management of this rare disease.

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Dr. Neel Shah FRCS Senior consultant "EpiploicAppendagitis: A Rare Case Report"." IOSR Journal of Dental and Medical Sciences (IOSR-JDMS) , vol. 17, no. 01, 2018, pp. 34-37.