Case Report

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A Prodigious Diagnosis of Acute Epiploic Appendagitis: A Rare Case Report

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Abstract

Appendices Epiploicae, also referred as Epiploic appendages, are 50-100 fat filled finger like projection from the serosal surface of large intestine. Epiploic Appendagitis (EA) is a self-limiting, benign disease process which results from the inflammation of these Appendices Epiplocae or thrombosis of the draining vein of Appendices Epiplocae. We report a case of 49 years old female, generally well, presented to the Emergency Department with complaints of a painful lump in her left iliac fossa growing in size for last four weeks. She presented to us because of acute increase in size and pain, resulting in significant discomfort. Owing to her history of cervical intra epithelial neoplasia we arranged a CT abdomen and pelvis with contrast fearing some sinister underlying ongoing pathology causing her symptoms. But to our surprise CT reported an underrated cause of her abdominal pain, EA. We were surprised of her presentation as a hard abdominal lump which was quite unusual for EA to present as. We assume it was secondary to an extensive underlying local inflammatory reaction. Patient was reassured and treated with NSAID, antibiotics and follow up with surgery ambulatory care. We authors are reporting this case of primary EA because we think every emergency and primary care physicians should be aware of this very rare condition which might present to emergency as an acute abdominal presentation mimicking other common presentations like acute diverticulitis and acute appendicitis. Being aware of this condition is utmost important to diagnose it early and avoid more invasive surgical managements and unnecessary antibiotic usage.

Keywords: Epiploic Appendagitis, Acute Abdomen, Emergency Department.

Introduction

Epiploic appendages, also referred to as Appendices epiploicae, are fat filled finger like projections originating from the serosal surface of large intestine, out pouching into the abdominal cavity. They are originating parallel to the outer layer of three longitudinal muscle bands of large intestine called taenia coli and in two rows, anterior and posterior(1). There are 50-100 epiploic appendages in an adult human (2).

Epiploic Appendagitis (EA), first described by Lynn et al. in 1956, a rare cause of acute abdominal pain/ presentation in Emergency Departments (ED). Primary appendagitisepiploica is a self-limiting disease process, resulting from inflammation of one or more epiploic appendage/s or rarely thrombosis of draining vein of a epiploic appendages. Secondary appendagitisepiploica is a resulting secondary inflammation of epiploic appendages which springs from a primary inflammation of an adjacent peritoneal structure, examples: appendicitis or diverticulitis or cancerous process (3).

We aimed to discuss this case of a minacious presentation of acute abdominal pain, which to our pleasant surprise, lead us to a very rare but amicable diagnosis of Epiploic Appendigitis.

Case

49 years old female presented to the ED with complaints of a painful lump in her left illiac fossa growing in size for last four weeks. She presented to us in ED as she noticed it increased in size significantly in last few days and pain became much worse. She denied any fever, weight loss, nausea, vomiting, loss of appetite, dizziness. No dysuria/ diarrhoea. She further denied any vaginal discharge/ bleeding/ spotting/ dyspareunia. Only significant past medical history was, she was diagnosed as cervical intra epithelial neoplasia 1 (CIN1) and recent cervical smear 2 weeks back confirmed no progression of the disease. When the patient's vital signs and physical examination evaluated in ED: Blood Pressure: 136/76mmhg, heart rate-89/min, SpO2-98% on Room Air, respiratory rate-19/min, Body Temperature-36.5°C. Chest: Bilateral (B/L) normal vesicular breath sounds (VBS). CVS= normal S1, S2 audible and no murmur. Abdomen: a hard, tender lump palpated in left lilac fossa, non-mobile and undefined lower edges, approx. 5x5cm size. Rest of the abdomen was soft and bowel sound was normal. We were surprised of her presentation as a hard abdominal lump which was quite unusual for EA to present as. We assume it was secondary to an extensive underlying

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local inflammatory reaction. Urine dipstick and urine beta HCG both came back negative. Her blood report showed raised WBC and CRP and normal renal and liver function tests. At this point our main concern was a malignancy in background of the history of CIN-1. Other differentials we wanted to rule out were Diverticulitis/ diverticular abscess, ruptured ovarian cyst or ovarian torsion. Hence we decided to go ahead for a CT abdomen and pelvis with contrast, weighing risk of radiation exposure vs. missing a more sinister pathology undergoing. To all of our pleasant surprise, CT reported that there was an acute left iliac fossa (LIF) EA of the sigmoid colon with target sign on the coronal MPR causing significant surrounding fat standing reaching the left inguinal canal with adjacent soft tissue swelling. No convincing hernia as shown in Figure-1. We referred the patient for emergency review by general surgeons. Patient was initially hospitalized with Non-Steroidal Anti-inflammatory Drug (NSAIDS) and Co-Amoxiclav with follow up in surgery care unit.

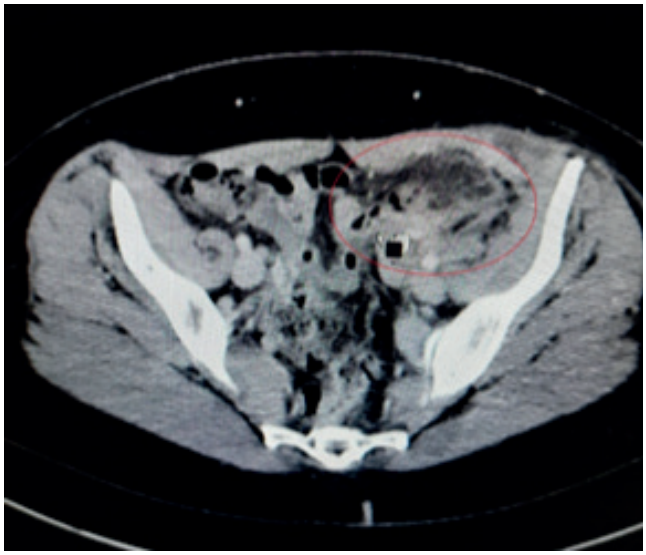

Figure 1. Left Iliac Fossa Epiploic Appendagitis of Sigmoid Colon with Target Sign with significant surrounding soft tissue swelling suggestive of inflammation, extending to left inguinal canal.

Discussion

Primary appendagitisepiploica is a rare, self-limiting inflammatory or ischaemic process involving the epiploic appendages, which are fat filled finger like projections originating from the serosal surface of large intestine into the peritoneal cavity. An adult human body they are usually 50-100 in number, between 0.5 and 5 cm long, containing a vascular stalk (two arterioles and one venule) attaching it to the surface of the colon/ large intestine. Primary appendagitisepiploica is a disease presenting mostly between 2nd to 5th decades of life (2). It is more common in obese women and one who recently lost weight, as these structures are larger in them, make them more prone to torsion (4).

Primary appendigitisepiploica presents with non-specific, localized abdominal pain, non-radiating, sharp in nature, mostly in the lower abdomen, left lower abdomen greater than right lower abdomen, usually pain does not get aggravated by movements, without any guarding or rigidity or palpable mass (5). Nausea, vomiting, abdominal bloating etc. are non-specific symptoms associated (6). In our case, patient although presented with a hard lump in the left lower abdomen, which not a common presentation of EA. We were surprised of her presentation as a hard abdominal lump which was quite unusual for EA to present as.

EA is primarily a CT/ Radiology diagnosis as this condition is rare and lacks any specific clinical feature to diagnose this condition. In CT, inflammation is mostly around the epiploic appendages and sparing the colonic wall and colonic diverticula, excluding acute diverticulitis or colitis (7). “Hyper attenuation ring sign” in CT scan is highly pathognomic of EA. In non-enhanced CT an solitary fat density which originates from the large bowel wall signifies the inflamed or ischaemic epiploic appendages. A hyper-attenuation rim surrounding this solitary fat density is the inflamed visceral peritoneum, giving rise to “Hyper attenuation ring sign” (8). “Fat stranding sign” is a more severe CT sign when inflammation spreads to the adjacent mesentry (5). In our case, the patient was diagnosed with EA by contrast-enhanced CT. CT showed Left Iliac Fossa EA of Sigmoid Colon with Target Sign with significant surrounding soft tissue swelling suggestive of inflammation (Figure 1).

Conclusion

We authors are reporting this case of primary EA because we think every emergency and primary care physicians should be aware of this very rare condition which might present to emergency as an acute abdominal presentation mimicking other common presentations like acute diverticulitis and acute appendicitis. Being aware of this condition is utmost important to diagnose it early and avoid more invasive surgical managements and unnecessary antibiotic usage.

References

1. Singh AK, Gervais DA, Hahn PF, Sagar P, Mueller PR, Novelline RA. Acute epiploic Appendagitis and its mimics. Radiographics. 2005; 25:1521–1534.
2. Almeida AT, Melão L, Viamonte B, Cunha R, Pereira JM. Epiploic appendagitis: an entity frequently unknown to clinicians—diagnostic imaging, pitfalls, and look-alikes. AJR Am J Roentgenol2009;193:1243–1251.
3. Lynn TE, Dockerty MB, Waugh JM. A clinicopathologic study of the epiploic appendages. *SurgGynecol Obstet.* 1956;103:423–33.

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Journal of emergency medicine case reports. 2024;15(2): 42-44

4. Ghahremani GG, White EM, Hoff FL, Gore RM, Miller JW, Christ ML. Appendices epiploicae of the colon: radiologic and pathologic features. Radiographics1992;12:59–77.

5. Pereira JM, Sirlin CB, Pinto PS, Jeffrey RB, Stella DL, Casola G. Disproportionate fat stranding: a helpful CT sign in patients with acute abdominal pain. Radiographics 2004; 24:703–715.

6. Ortega-Cruz HD, Martinez-Souss J, Acosta-Pumarejo E, Toro DH. Epiploic appendagitis, an uncommon cause of abdominal pain: a case series and review of the literature. P R Health Sci J 2015; 34:219–221

5. Chen JH, Wu CC, Wu PH. Epiploic appendagitis: an uncommon and easily misdiagnosed disease. J Dig Dis 2011;12:448–452.

8. Ergelen R, Asadov R, Özdemir B, Tureli D, Demirbaş BT, Tuney D. Computed tomography findings of primary epiploic appendagitis as an easily misdiagnosed entity: case series and review of literature. Ulus TravmaAcilCerrahiDerg2017;23:489–494.