

Epiploic Infarction of Idiopathic Origin: A Diagnosis Not to Be Ignored

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Abstract

Case Report

Idiopathic epiploic infarction is a rare disorder that manifests with nonspecific clinical symptoms that can mimic a variety of acute abdominal conditions. Imaging, particularly CT, is used to evoke the diagnosis, to search for associated abnormalities and complications. Management is essentially medical but surgical treatment may be considered in complicated cases. We describe the case of a patient with an epiploic infarction complicated by omental necrosis who was managed surgically.

Keywords: Epiploic infarction, epiploic necrosis.

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INTRODUCTION

IFFI (intraperitoneal focal fat infarction) includes all abdominal pathologies of fat necrosis including omental infarction of the greater omentum or epiploic infarction.

Omental infarction is a rare condition whose etiology and exact frequency are unclear. The objective of this work is to show the typical aspects of this pathology, to describe its radiological semiology and its atypical localizations in order to make the diagnosis with ease.

OBSERVATION

This is a 68-year-old obese patient with no history of cardiovascular disease who presented with abdominal contracture with epigastric pain of abrupt onset. The multidimensional computed tomography (CT) scan performed in the first instance revealed a significant diffuse infiltration of the epiploic apron located between the muscle wall and the colon, which is the site of hyperdense linear bands (Figure 1). These linear bands are related to thrombosed veins. In addition, there is an asymmetric thickening of the colonic walls in contact with the area of inflammatory infarction (Figure 2) and a free peritoneal effusion of moderate size. Given the signs of digestive distress and clinical peritonitis, the patient was operated on urgently by the visceral surgeon on duty, confirming necrosis of the entire epiploic apron with inflammatory digestive tracts (Figure 3).

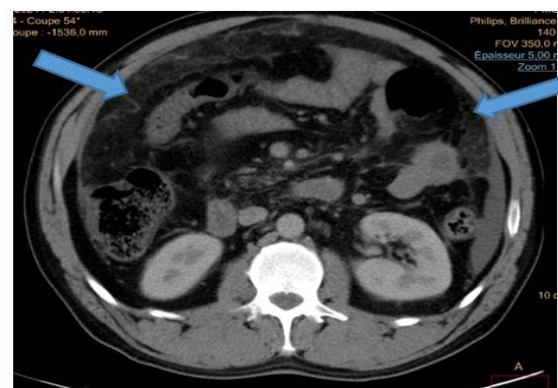


Figure 1: Significant diffuse infiltration of the epiploic apron located between the muscular wall and the colon in relation to the infarct zone, which is the site of hyperdense linear bands related to the thrombosed veins

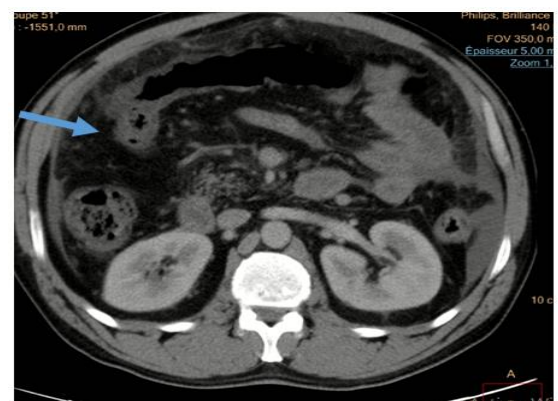


Figure 2: Thickening of the colonic walls opposite the inflammatory infarcted area



Figure 3: Omental infarction complicated by necrosis of the whole omentum

DISCUSSION

The greater omentum is a cellulo-fatty apron lining the abdominal cavity. It is supplied arterially by the right gastroepiploic artery, which is a branch of the gastroduodenal artery, and by the left gastroepiploic artery, which is a branch of the splenic artery.

Idiopathic epiploic infarction is a rare entity because many collateral vessels vascularize the greater omentum. The most frequent cause is a post-traumatic venous perfusion insufficiency or post-thrombosis of the omental veins. Predisposing factors are obesity, hypercoagulability, vasculitis, recent abdominal surgery or abdominal trauma. The clinical course is difficult and aspecific, but manifests itself as intense, very localized pain, most often located in the right iliac fossa, contrasting with a preserved general condition. The biological assessment is non-specific. Abdominal ultrasound, when performed, may show a hyperechoic, fixed, non-mobile, non-compressible ovoid mass located between the muscle wall and the colon. Abdominal CT, which is the best examination, shows the infarcted area as a well-limited omental mass with heterogeneous content, not enhanced, most often located subparietally, behind the rectus muscle and in front of the right part of the transverse colon. Sometimes tubular structures appear within this area of infarction in connection with thrombosed veins. A fibrous shell most often adherent to the thickened anterior parietal peritoneum appears quite rapidly in the course of the disease, allowing a differential diagnosis with tumoral lesions of the peritoneum with fatty

content (liposarcoma) or fibrous content (omental metastasis).

The colonic wall opposite the infarcted area in early forms is normal, allowing differential diagnosis with diverticulitis or colitis, and thickened in late forms. The management of omental infarction consists of medical treatment (administration of NSAIDs, analgesics and more or less antibiotics) under close clinical, biological and imaging surveillance; surgical treatment may be considered in complicated cases as in the case of our patient where surgery was necessary revealing omental torsions and areas of omental necrosis (Figure 3).

CONCLUSION

Epiploic infarction is an important acute abdominal syndrome to be aware of, as the course appears to be generally benign. The CT scan allows the diagnosis to be made. Surgical treatment can thus be avoided in uncomplicated cases.

Conflicts of Interest: The authors declare no conflicts of interest.

Author's Contributions

All authors contributed to the conduct of this work. They read and approved the final version of the manuscript.

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