



## Case Report

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# What Shall We Do Now? Report of Unexpected CT Finding and Its Management

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## Abstract

A 41-years-old patient underwent total colectomy and ileal pouch-anal anastomosis with derivative ileostomy for a familiar adenomatous polyposis coli in June 2008. Pathologic examination of the specimen showed a pT1 N1 adenocarcinoma of the rectum. The patient underwent chemo-radiation and subsequent adjuvant chemotherapy. A stenosis of the pouch-anal anastomosis developed. The patient underwent several endoscopic dilations. The ileostomy was taken down in March 2016. A recurrence of the stenosis and a peri-anastomotic collection were observed. An endoscopic drainage of the collection was performed on October 3<sup>rd</sup>, 2016. The endoluminal drainage was removed and the fistula closed with an OVESCO® clip on October 10<sup>th</sup>. The patient was re-admitted on October 19<sup>th</sup> with serotine fever (37.8 °C) without leucocytosis. An endoscopic examination of the pouch showed absence of purulent discharge but many fistulous orifices around the pouch-anal anastomosis were detected. A CT scan showed little peri-anastomotic collections (Figure 1) with air-fluid levels and massive hepatic portal venous gas (Figure 2). The patient was in good clinical conditions, afebrile, blood tests showed: WBC: 4290/μL, PCT: 0.10 ng/ml.

## Keywords

Portal system, Endoscopy/gastrointestinal, Intestinal fistula

## What is the Cause of the Portal Pneumatosis?

Finding of a relevant amount of gas in portal venous system has traditionally been associated with serious clinical conditions with poor outcome, as it happens in abdominal abscess or intestinal infarction [1]. In some cases, venous hepatic gas is an incidental finding with scarce clinical relevance: It has been described as a consequence of diagnostic or therapeutic invasive procedures [2] such as surgery, hepatic artery embolization, operative endoscopic procedures [3]. In our case, an abdominal abscess was present but clinical serious signs of sepsis were absent. Based on clinical findings, antibiotic treatment with meropenem (500 mg tid i.v.) was administered without further diagnostic or therapeutic interventions, assuming that the portal pneumatosis was due to the endoscopic examination. One day later a new CT scan detected a marked reduction of hepatic portal venous gas (Figure 3); the patient resumed oral feeding and three days later was discharged. Our experience confirm that hepatic portal venous gas can be related to endoscopic procedure; thus, it can be managed on the basis of patient's general clinical conditions, and in selected cases it will disappear without therapeutic interventions with a good outcome.

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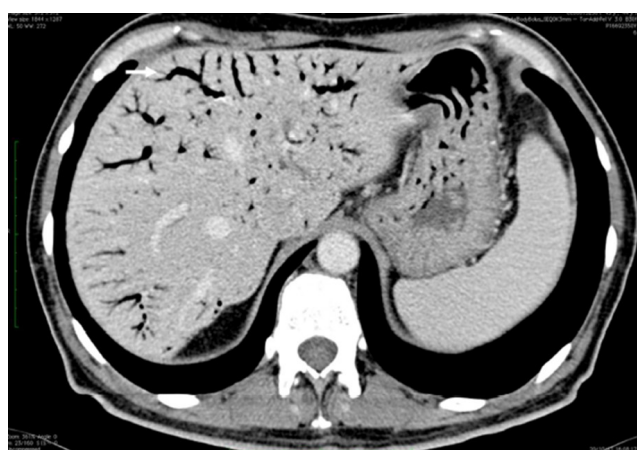
**Figure 1:** A CT scan showed little peri-anastomotic collections with air-fluid levels.

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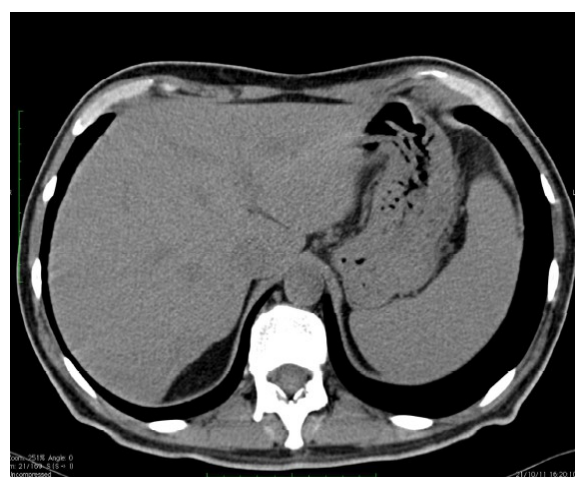
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**Figure 2:** Unexpected CT finding: relevant amount of air in medium and small branches of portal vein (arrow) 254 × 177 mm (96 × 96 DPI).



**Figure 3:** A CT scan detected a marked reduction of hepatic portal venous gas.

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