## Case 1923

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### Importance of contrast-enhanced multislice CT colonography in a case of incomplete conventional colonoscopy due to obstructive neoplasm

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DOI: 10.1594/EURORAD/CASE.1923 ISSN: 1563-4086 Section: Abdominal imaging Imaging Technique: CT Imaging Technique: CT Imaging Technique: CT Imaging Technique: CT Case Type: Clinical Cases Authors: V. Cantisani, S. Visconti, D. Fazzini, F. Piacentini, R. Iannaccone Patient: 64 years, male

#### **Clinical History:**

The patient presented with altered bowel habits, weight loss, and a positive faecal occult blood test result. Colonoscopy was incomplete because of an obstructive lesion. Imaging Findings:

The patient presented with a clinical history of altered bowel habit, weight loss (6kg of body weight lost in 3 months), and a positive faecal occult blood test result. He underwent conventional colonoscopy, which failed to visualise the entire colon because of an obstructive lesion obstructive lesion located at the level of the recto-sigmoid junction. Therefore, the patient was immediately transferred to the Diagnostic Radiology Department to undergo contrast-enhanced CT colonography.

CT colonography was completed according to a previously published approach [1]. CT colonography was able not only to detect the primitive, stenosing neoplasm but it also provided important additional information. First, CT colonography demonstrated that the primitive carcinoma invaded the bladder and prostate gland (Fig. 1). Second, a synchronous, stenosing tumour was identified within the descending colon (Fig. 2). Third, distant metastases could be demonstrated within the liver (two metastases; Fig. 3) and spleen (one metastasis; Fig. 4), as well as multiple peritoneal implants (Fig. 5).

#### Discussion:

This case exemplifies one of the major indications for performing CT colonography, namely the failure of conventional colonoscopy to visualise the entire colon [2-4]. A variable, but significant, percentage of conventional colonoscopies fail to reach the caecum for various reasons such as tortuous colonic segments, residual faecal material, or, as in this case, obstructive lesions [2-4]. Taking into account that even double contrast barium enema has difficulties in the visualisation of the proximal colon in patients with stenosing lesions [5], CT colonography has been increasingly utilised in recent years in may cases of incomplete conventional colonoscopy.

More specifically, CT colonography can provide a complete colonic evaluation in all cases, even in the presence of obstructions. Therefore, synchronous tumours (as in this patient) and/or coexisting adenomas which often occur (up to 9% and 55%, respectively) can be detected [2] and, consequently, a different surgical approach can be chosen. In addition, by injecting contrast material during the supine scan, CT colonography can provide a complete staging of the tumour. Indeed, contrast-enhanced CT colonography can evaluate the neoplastic mass in terms of bowel wall invasion (T parameter), lymphadenopathies (N parameter), and distant metastases (M parameter).

CT colonography is an excellent tool for the diagnosis and staging of patients affected by colorectal carcinoma.

**Differential Diagnosis List:** Carcinoma of the recto-sigmoid junction with synchronous carcinoma of the descending colon and distant metastases

**Final Diagnosis:** Carcinoma of the recto-sigmoid junction with synchronous carcinoma of the descending colon and distant metastases

#### **References:**

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**Description:** Axial CT colonographic image shows a stenosing lesion within the recto-sigmoid junction. There is no fat plane with the bladder and the prostate gland. **Origin:** 



**Description:** Virtual double-contrast barium enema image clearly demonstrates luminal narrowing due to the neoplastic lesion (arrows). **Origin:** 



**Description:** Coronal multiplanar reformation depicts a synchronous, obstructive tumour within the descending colon (arrow). **Origin:** 



**Description:** Three-dimensional volume-rendered endoluminal image shows the stenosing tumour with a residual patent lumen (arrow). **Origin:** 



**Description:** Axial CT image shows a metastasis (40mm in diameter) within segment II of the liver. The metastasis encases the left suprahepatic vein (arrow). **Origin:** 



**Description:** Axial CT image demonstrates a second metastasis (9mm in diameter) within the VIth segment of the liver (arrow). **Origin:** 



Description: Axial CT image shows a 35mm diameter splenic metastasis (arrow). Origin:



Description: Axial CT image shows two peritoneal implants (arrows). Origin:



Description: Axial CT image shows four peritoneal implants (arrows). Origin: