

Case 6

Hide and Seek – CT Colonoscopy Solves the Riddle

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HISTORY

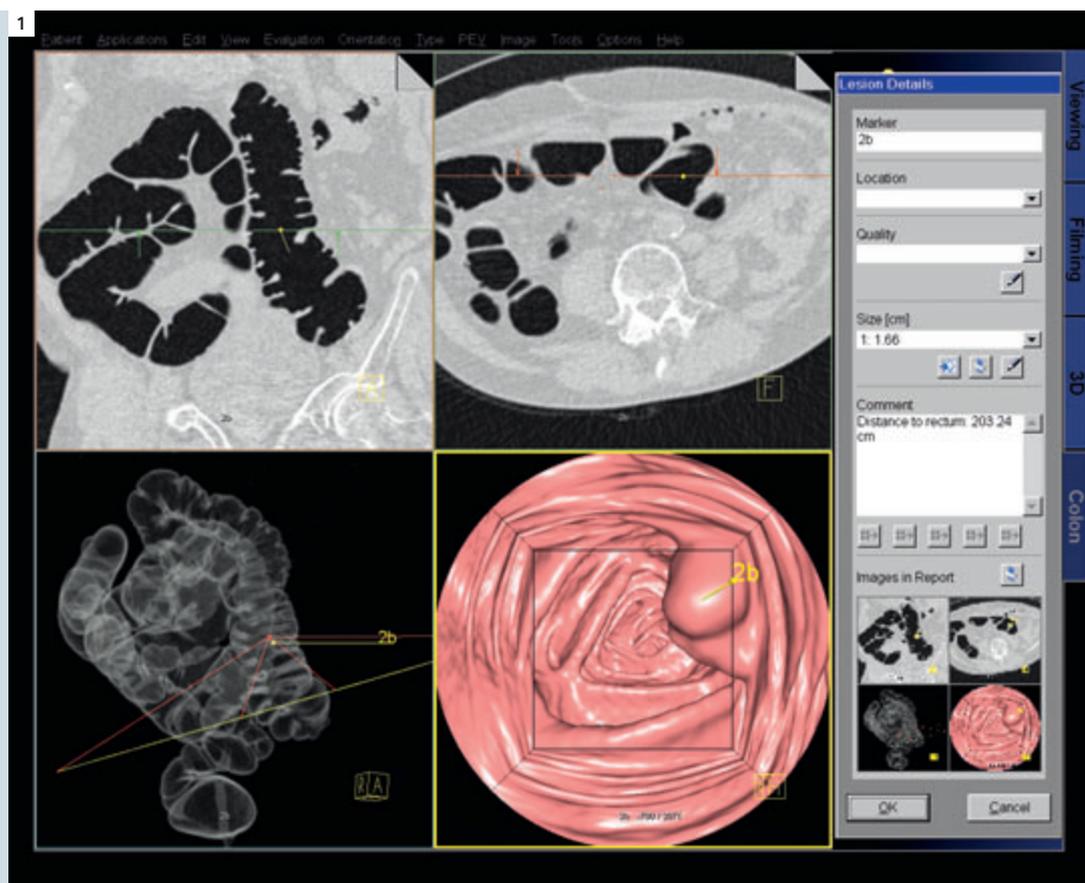
A 79-year-old, male patient was referred for CT colonoscopy (CTC) following optical colonoscopy. Unusually, the request was not due to an incomplete optical colonoscopy. The patient was referred because the gastroenterologist had identified a large polyp for resection but was unable to identify its exact location and secure it for resection during the optical procedure.

DIAGNOSIS

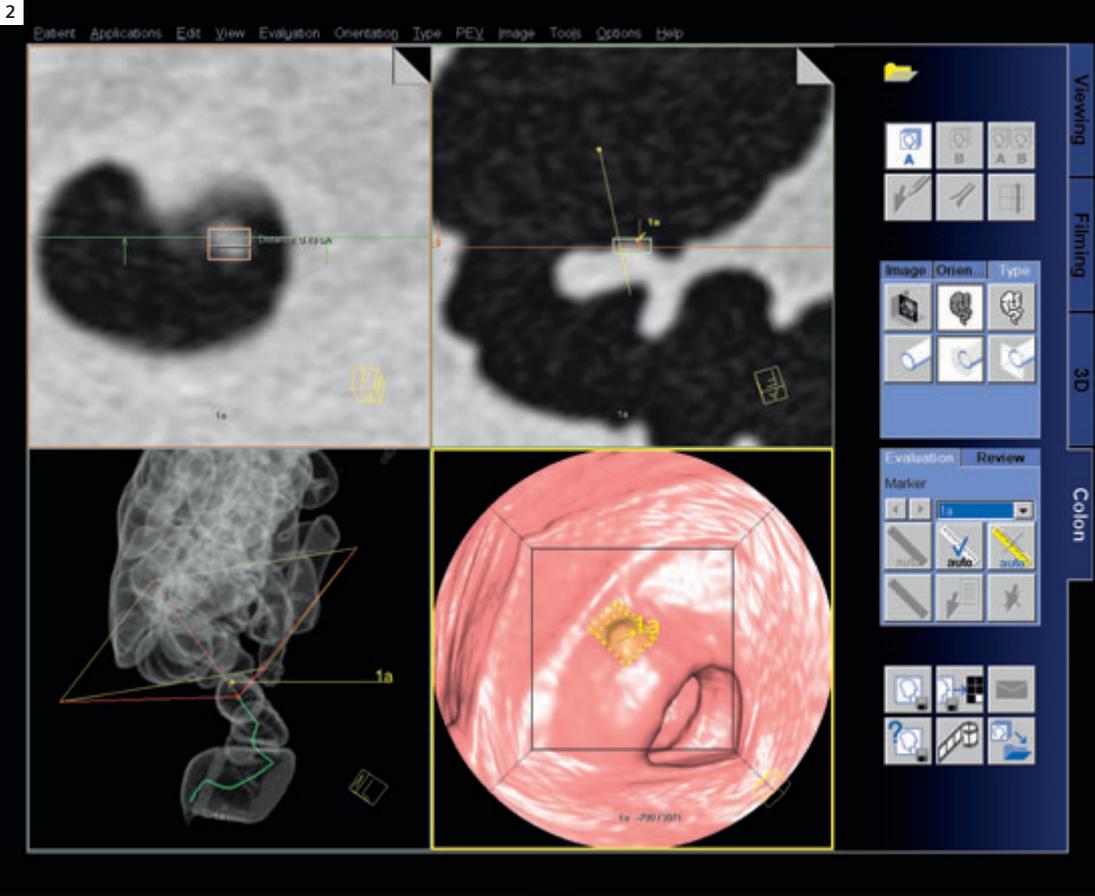
The patient was scanned using our standard, low-dose protocol on a SOMATOM® Sensation 64 in both the prone and supine positions. The CT images immediately revealed the reason behind the difficulties experienced by the gastroenterologist. The patient exhibited the anatomical anomaly, situs inversus, a partial malrotation of the colon where the internal organs are reversed inside the abdominal

cavity and the small bowel is located lateral to the descending colon. If this condition has not been previously identified in a patient, it is impossible for the gastroenterologist to recognize during an optical procedure.

Using CTC, we were able to demonstrate the exact size and location of the polyp (Fig. 1) to the gastroenterological surgeon. The global view together with the



1 The 1.66 cm polyp (2b) was identified in the ascending colon, approximately 203 cm from the rectum.



2 An additional 0.5 cm polyp in the sigmoid colon was identified in the CTC exam.

3D virtual endoscopy, with automatic size measurement, proved convincing tools for communication with our surgical colleagues. Additionally, we were able to identify another smaller lesion in the sigmoid colon which had not been identified in the optical exam (Fig. 2).

COMMENTS

This case clearly demonstrates the clinical benefit of “x-ray vision” for difficult anatomical cases. CTC gave us a clear picture of the entire anatomy and, using *syngo* Colonography CT, we were able to confidently guide the surgeons to a successful clinical outcome.

EXAMINATION PROTOCOL

Scanner	<i>SOMATOM Sensation 64-slice configuration</i>
Scan area	<i>Abdomen</i>
Scan length	<i>500 mm</i>
Scan time	<i>9 s</i>
Scan direction	<i>cranio-caudal</i>
Tube voltage	<i>120 kV</i>
Tube current	<i>30 eff. mAs and 15 eff. mAs</i>
Rotation time	<i>0.5 s</i>
Slice collimation	<i>0.6 mm</i>
Slice width	<i>1.0 mm</i>
Pitch	<i>1.4</i>
Reconstruction increment	<i>0.7 mm</i>
Kernel	<i>B20/ B10</i>
Postprocessing	<i>syngo Colonography CT</i>