

Clinical Image

Double Rectum Sign: Anastomotic Leakage

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A 41-year-old patient presents a prolonged ileus with abdominal tenderness even days after an anterior resection with total excision of the mesorectum and latero terminal colorectal anastomosis for a rectal adenocarcinoma. The laboratory results reveal elevated CRP levels.

An abdomino-pelvic CT scan with low water-soluble opacification shows a leakage of the contrast media with individualization of a parietal defect next to the colorectal anastomosis (Figure 1), feeding a pre-sacral collection mimicking a rectal lumen in a “double rectum sign” appearance (Figure 2A & B).

Anastomotic leakage is one of the most important complications of colorectal cancer surgery. It refers to a parietal defect involving the anastomosis area, leading to communication between the intra and extra luminal compartments [1]. This complication is suspected in the presence of an infectious syndrome and particularly in the event of significant increase in CRP levels [1].

Imaging is the key to make the correct diagnosis using computed tomography and relies on a rigorous acquisition protocol [2] where rectal opacification with water-soluble fluids plays a major role.



Figure 1: Axial CT image after retrograde opacification showing contrast media extravasation with a pre sacral collection mimicking the rectal lumen featuring the double rectum sign (white arrow) adjacent to the true rectum (black arrow).

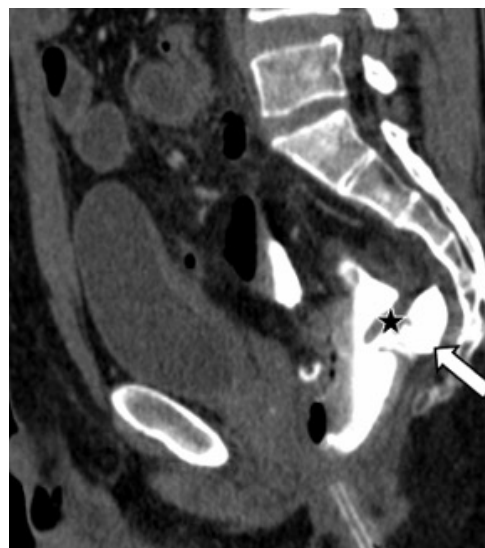


Figure 2: Sagittal CT image demonstrating contrast media leakage (asterisk) forming a pre sacral collection featuring the double rectum sign (arrow).

In fact, extravasation of contrast media remains the most reliable sign to make the diagnosis [2].

The “Double rectum sign” appearance is defined by the presence of contrast leakage resulting in a collection that may contain mottled air bubbles or an air fluid level [1]. This collection most often lies at the level of the pre-sacral space, whereby mimicking the rectal lumen and suggesting the diagnosis of an anastomotic leak [2].

It can be associated with extensive fat infiltration or even intra peritoneal extension with multiple collections responsible for suppuration and peritonitis.

Keywords: Anastomotic Leakage; Double Rectum Sign; Colorectal Cancer.

References

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