A rare case of recurrent mechanical small bowel occlusion after pelvic radiotherapy

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Objective
Pelvic cancers are among the most frequently diagnosed diseases, with pelvic radiation therapy playing an important role in multidisciplinary therapy. Long term, common complications include rectal bleeding, pain and diarrhoea. There are few cases reported in the literature of mechanical small bowel occlusion resulting from radiotherapy. The majority of these cases describe an occlusion due to a peritoneal carcinomatosis or adherences, with no cases of endoluminal disease reported.

Materials and Methods
A 73-year old man presented to our emergency department (ED) with the typical symptoms of mechanical small bowel obstruction (SBO). The patient was successfully treated 1 year previously with pelvic radiotherapy (cumulative dose 78 Gy) for a prostate adenocarcinoma (Gleason score 8, 3+5). A diagnostic laparoscopy was performed without intra-operative identification of bowel adherences. The symptoms resolved spontaneously and the patient was discharged 3 days later.

Over the following months, the patient continued to be symptomatic for spontaneously resolving SBO. Due to the recurrence of these symptoms and the impossibility to obtain an etiological diagnosis, a videocapsule endoscopy was performed.

Results
2 days later the patient represented to the ED, where a x-ray of the abdomen localised the videocapsule within the small bowel with imaging revealing a gut stenosis. The patient underwent a laparoscopic assisted ileal resection, with intraoperative and histopathological findings showing an endoluminal mucosal bridge causing a stricture. The postoperative course was uneventful and the patient was discharged after 4 days.

Conclusions
The use of videocapsule endoscopy in this case is controversial. The sole indication was a result of recurring symptoms and the fact that all other diagnostic exams (including CT scan, colonoscopy, esophagogastroduodenoscopy, magnetic resonance and x-ray bowel transit) were inconclusive, yet the videocapsule endoscopy led to a rapid diagnosis and an uncomplicated surgical outcome.

There are a few cases of small bowel mucosal diaphragm described after non-steroidal anti-inflammatory drugs abuse, but in our case the only and most likely cause was radiotherapy, known in other settings to cause localised tissue damage. We propose that even if the histopathological result was inconclusive, a correlation should be taken into account.

References