Giant inflammatory polyposis in inflammatory bowel disease

This patient was referred to the gastroenterology clinic with a two-month history of abdominal pain and diarrhoea. He had no past medical or surgical history and was on no regular medication. Several investigations were performed.

CT abdomen was performed in the first instance. This showed a long segment of hugely dilated transverse and descending colon with marked circumferential striated wall thickening suggestive of diffuse pseudopolyposis (Figure 1). There were several enlarged mesenteric nodes. The small bowel appeared normal. There were no abscesses, fistulae or sinus tracts. MR enterography was performed to assess for evidence of Crohn's disease. This demonstrated a similar appearance with aperistalsis in the affected portion of colon (Figure 2). As on CT, there were no other signs of inflammatory bowel disease. A colonoscopy was performed which confirmed the presence of pseudopolyps throughout the involved segment of colon (Figure 3).

The patient’s symptoms were refractory to medical therapy and he underwent a total colectomy. Histopathological analysis of the resection specimen confirmed the diagnosis of pseudopolyposis on a background of inflammatory bowel disease.

Discussion:

Background: Post inflammatory polyps or pseudopolyps are a common finding in inflammatory bowel disease (IBD). Giant polyps are a rare subgroup of pseudopolyps, defined as pseudopolyps measuring more then 15mm in size [1, 2]. They tend to occur in a focal distribution. They are almost always associated with IBD, and occur as commonly in ulcerative colitis as in Crohn’s disease [2]. It is unclear whether they result from post inflammatory regeneration or from hyperplastic proliferation of the remaining colonic mucosa. They have been described rarely in cases of ischaemic and infective colitis.

Clinical perspective: Patients most commonly present with abdominal pain, diarrhoea or bleeding. Polyps may result in obstruction or intussusception.

Imaging perspective: Pseudopolyposis is classically seen on fluoroscopic barium examinations as ‘varicoid’ or
‘cobblestone’ mucosa. The CT appearance has been described as an irregular mass of interwoven extensions of soft tissue density and intraluminal air/contrast material [3]. A similar interwoven appearance may be seen on MRI. The radiologic appearance can be confused with a polypoid colonic neoplasm, but this would be expected to be solid in appearance. Faecal loading is another differential. Faeces does not typically have an interwoven striated appearance.

Evaluation for supportive imaging features of IBD should be performed. US and fluoroscopy are mainly used in screening. Barium small bowel studies can show ulceration, stricturing and fistulation, typically in the terminal ileum. Ultrasound assesses small bowel wall thickening but its use is limited as it cannot examine the entire bowel. Use of CT should be limited to emergency settings because of the associated radiation dose. Typically, IBD patients will have serial abdominal imaging studies over their lifetime. MR enterography is being used with increasing frequency as it avoids a radiation dose. MR enteroclysis may also be performed, but this technique is invasive, necessitating the placement of a nasojejunal tube. CT and MR imaging findings of IBD include bowel wall thickening, ‘comb sign' of mesenteric hypervascularity, strictures, abscesses or fistulae. The gold standard for the diagnosis of IBD and pseudopolyposis is colonoscopy and biopsy facilitating histopathologic analysis.

Outcome: Surgery is frequently performed, as pseudopolyposis can be difficult to clinically distinguish from a polypoid neoplasm. The disease can, however, be effectively treated medically with steroids [4].

Teaching points: Consider inflammatory polyposis and inflammatory bowel disease in younger patients presenting with imaging features as outlined in the case above.

**Differential Diagnosis List:** Giant inflammatory polyposis on a background of inflammatory bowel disease., Faecal loading, Polypoid colon cancer

**Final Diagnosis:** Giant inflammatory polyposis on a background of inflammatory bowel disease.

**References:**


**Description:** Axial portal venous phase CT image at the level of the iliac crests shows a segment of hugely dilated transverse colon with marked circumferential striated wall thickening (arrow). **Origin:** McEvoy S, Department of Radiology, SVUH, Dublin, Ireland
Description: Coronal image from an MR enterogram shows a long segment of dilated transverse colon with similar circumferential striated wall thickening (arrow). There was aperistalsis within the affected segment. Origin: McEvoy S, Department of Radiology, SVUH, Dublin, Ireland.
Figure 3

Description: Endoscopic image from the same case with the endoscope within the descending colon. This image shows multiple wormlike polyps. Origin: McEvoy S, Department of Radiology, SVUH, Dublin, Ireland.