A rare case of occult gastrointestinal bleeding: a submucosal colonic lipoma mimicking a malignant tumour

José A Guirola Ortíz, Guillermo Muñoz González, Victoria Mayoral Campos, José L de Benito-Arévalo, Beatriz Carro Alonso

A 52-year-old man presented a 2-month history of cramping lower abdominal pain, change in bowel habits with reduced consistency, altered stool frequency and excessive flatus.

His physical examination and laboratory test were normal except for a routine stool study that showed a positive result in fecal occult blood test. A colonoscopy revealed an ulcerated tumour with friable tissue and a pediculated polyp of 8 mm at the splenic flexure.

Biopsies obtained in the colonoscopy shown a focal fibrosis, granulated tissue and increased vascularity in which the pathologist concluded as a possible colonic hemangiosarcoma.

Abdominal CT revealed a large mass located in the colon at the splenic flexure with an approximated size of 45 mm in diameter and a low-density attenuation (-80 HU), which corresponds to fatty tissue (Figure-1).

Abdominal CT also revealed a large thickening of the colonic wall (8.0 × 5.0 cm) with a collapse of the colonic lumen (Figure 1); the radiologist concluded a submucosal lipoma with a doubtful colonic neoplasm.

Figure 1. Abdominal CT (axial and coronal views). Shows a large fatty mass (yellow arrows) located in the splenic flexure of the colon, with a low density same as the normal adjacent mesenteric fat. Also it shows a thickening of the colonic wall with a collapsed lumen (white arrows)
Laparotomy surgery was performed showing a large fatty mass and an extended right hemicolectomy procedure was done. The surgical specimen obtained showed a pediculated tumour located within the colonic submucosa (Figure 2) with a broad eroded and ulcerated surface, oval shape, a size of 6 cm in the maximum diameter located at 19 cm of the ileocaecal valve (Figure 2).

**Figure 2.** Macroscopic view of the surgical anatomical specimen, shows a fatty tumour located within the submucosa (white arrow), an ulcerated surface from chronic friction and the origin of the intestinal bleeding (black arrow), and the normal colonic mucosa (blue arrow)
Microscopy view showed a proliferation of mature adipocytes within the colonic submucosa, showing a wide and clear cytoplasm and small-elongated nucleus located in the periphery.

The fatty lesion presented a covering sheath that corresponds to colonic mucosa with fibronecrotic changes, inflammatory cells and newly formed vessels secondary of chronic friction and the presence of acute and chronic hemorrhagic findings (Figure 3). The final diagnosis was a submucosal lipoma, a benign fatty tumour seen in the colon with right side preference (51–70%).

These benign tumours are 0.035–4.4% of all intestinal neoplasms.¹

Figure 3. Microscopy view of the specimen. Shows a large infiltration of inflammatory cells and bleeding due to the chronic friction (white arrow). Multiple normal mature adipocytes with peripheric nucleus (black arrow)

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**Learning Points:**

- **Not all gastrointestinal bleeding comes from malignant tumours**
- **Always remember Hounsfield units**

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<table>
<thead>
<tr>
<th>Hounsfield Units (HU)</th>
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<tr>
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<tr>
<td>0</td>
<td>Water</td>
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<tr>
<td>+500 to +1000</td>
<td>Soft tissue</td>
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- **−100 to −60 HU, is always fat**
- **Colonic lipoma are 0.035–4.4% of all intestinal neoplasms,¹ with a right-sided preference (51–70%)¹**
Author information: José A Guirola Ortíz, Radiologist; Guillermo Muñoz González, Pathologist; Victoria Mayoral Campos, Radiologist; José L de Benito-Arévalo, Radiologist; Beatriz Carro Alonso, Radiologist; Department of Radiology, Clínico Universitario Hospital Lozano Blesa, Zaragoza, Spain;

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Correspondence: José A Guirola Ortíz, Department of Radiology, Hospital Clínico Universitario Lozano Blesa, Avenida San Juan Bosco 15, 50009, Zaragoza, Spain. Fax: +34 (0)976 765700; email: jaseandresguirola@gmai.com

References:


