Mesenteric panniculitis following colonoscopy, polypectomy, and epinephrine injection

A 47-year-old woman with irritable bowel syndrome and family history of colon cancer underwent an elective colonoscopy. During the procedure, two sigmoid polyps were removed via hot biopsy. This was complicated by arterial bleeding and controlled with an injection of 6 mL of 1:10000 epinephrine and placement of an endoscopic clip. Immediately following the procedure, the patient developed severe abdominal pain and irregular bowel habits leading to hospitalization. She was treated with intravenous levofloxacin, metronidazole, and oral 5-aminosalicylic acid for 7 days without relief. A subsequent sigmoidoscopy showed extensive erythema and edema of the sigmoid colon, however, the biopsies did not reveal a specific diagnosis. A computed tomographic (CT) scan showed diffuse sigmoid wall thickening with surrounding mesenteric fat stranding (> Fig. 1). A laparotomy was carried out for a palpable left-sided abdominal mass, and a 25-cm mass was found. The patient underwent sigmoid and descending colon resection with anastomosis, removal of a large portion of the mass, appendectomy, and bilateral tubal ligation. Microscopic examination of the mass revealed fat necrosis, fibrosis, and chronic inflammation of the mesocolon consistent with mesenteric panniculitis (> Fig. 2). After receiving an 8-week course of corticosteroids, the patient remained well at her 24-month follow-up.

Mesenteric panniculitis is an inflammatory and fibrotic process of the mesentery that has various clinical and radiological presentations [1]. It may be diagnosed as an incidental finding on CT or may present with a wide array of symptoms, including abdominal pain, diarrhea, constipation, vomiting, and fever [2]. Tissue biopsy is commonly needed to establish a definitive diagnosis [3].

The etiology of mesenteric panniculitis is unknown; it has been described in patients with previous abdominal surgery or trauma, autoimmunity, paraneoplastic syndromes, ischemic injury, allergic reactions, and infection [4]. The patient described above is the first reported case of mesenteric panniculitis where the disease



Fig. 1 a Axial contrastenhanced computed tomography (CT) scan shows significant thickening of the wall of the sigmoid colon, with the wall measuring up to 1 cm (arrow). Note the presence of surrounding mesenteric fat stranding (arrowhead). b Axial contrast-enhanced CT image obtained further inferiorly shows a large area of mesenteric fat stranding with an encapsulated appearance (arrowheads). A few small mesenteric lymph nodes are also seen (arrow).

Fig. 2 Pathological specimen typical of mesenteric panniculitis displaying chronic inflammation, focal fat necrosis, and fibrosis. The inset image at higher magnification clearly showing an area of chronic inflammation and fat necrosis.

process was exacerbated by colonoscopy, possibly as a result of epinephrine injection or placement of an endoscopic clip. Mesenteric panniculitis should be considered in the differential diagnosis of patients with abdominal pain and an inflammatory mass following colonoscopy and polypectomy.

1.0 mm

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