

Title:

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Bone metaplasia in rectal polyp. About the case.

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Dear Editor,

A 77-year-old man who underwent a colonoscopy because of a positive fecal occult blood test, removing a polyp in the rectum, 12 cm from the anal margin, with a hyperplastic appearance, covered by a cap of whitish fibrinoid exudate (Figure 1). The pathological report refers to it as a hyperplastic polyp with foci of bone metaplasia in the lamina propria.

Bone metaplasia consists of the histological formation of benign bone tissue. It is rarely found in the gastrointestinal tract. Its diagnosis is usually incidental since in most cases it is asymptomatic. (1)

Within the gastrointestinal tract, most have been described in the rectum or left colon. It is usually associated with mucin-producing tumors of the rectum, colon, and appendix. Histologically, necrosis, calcification, increased vascularity, chronic active inflammation, ulceration, and extracellular mucin deposits are observed. (2)

It has been described on adenomas, serrated polyps, juvenile hamartomatous (3) or hyperplastic, Barrett's esophagus, appendicular tumors and mucocele (1, 4), metastasis of gastric cancer to the colon after radiotherapy.

The mechanism by which it occurs is not well known. It has been suggested that metaplasia may be due to the ability of fibroblasts to transform into other types of mesodermal tissue, specifically osteoblasts, that produce bone. (5) More recently it has been shown that a pluripotential cell transforms into an osteoblast under the

influence of factors generated by epithelial cells (bone morphogenetic proteins BMP-5 and BMP-6) and by adjacent fibroblasts (BMP-2 and BMP-4), as well as that osteogenic stimulation is the result of an inflammatory process that could be due to a local lesion.

(3)

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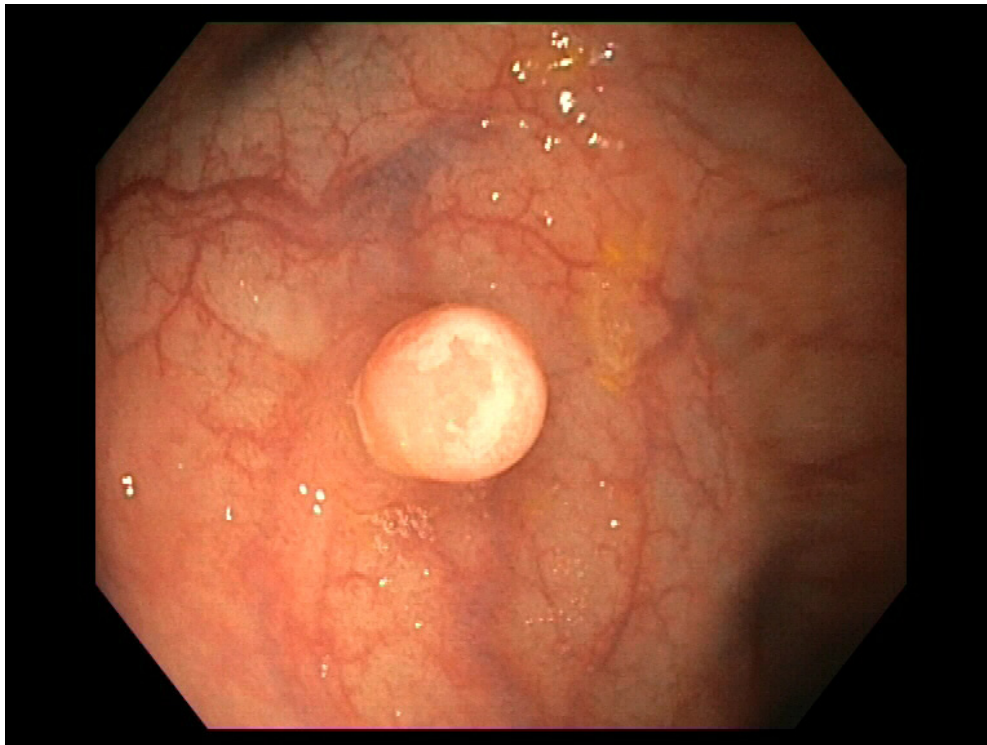


Figure 1. Bone metaplasia polyp observed in the colonoscopy.