

## CLINICAL IMAGE

# Hyperplastic gastric polyp with foci of ossification

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**Key Clinical Message**

Stromal ossification has been reported in relation with gastrointestinal (GI) cancers. Heterotopic ossification of benign gastric polyps with bone formation is rarely documented and sometimes associated with calcification. Thus, the presence of foci of metaplastic bone (FMB) does not always imply GI cancer.

**KEYWORDS**

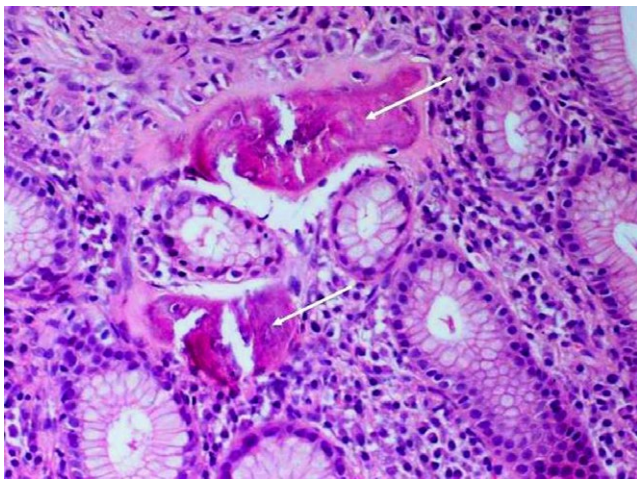
foci of ossification, gastric polyp, metaplastic bone

## 1 | QUESTION

Can foci of metaplastic bone (FMB) appear in the stroma of a typical hyperplastic gastric polyp?

## 2 | ANSWER

A 61-year-old male patient with arthritis presented mild-to-severe epigastralgia attributed to the chronic NSAIDs use.<sup>1</sup> Gastroscopy revealed mild gastritis and a small, solitary polypoid



**FIGURE 1** Foci of bone formation (arrows) embedded in the stroma of hyperplastic gastric tissue (H.E. stain  $\times 200$ )

lesion in the antrum, 3 mm in diameter. Histopathological examination demonstrated mild hyperplastic changes in gastric epithelium and mild, superficial, inflammatory reaction without stratification or nuclear atypia. Those changes were diagnosed as a typical hyperplastic gastric polyp, with no cancerous lesions (Figure 1). Nevertheless, the polyp stroma contained multiple minute areas of osseous metaplasia, which 3 years later still presents benign characteristics. Hypothesizes as to the osteogenic factors that intrigue stromal bone formation (molecular cell interaction, released/induced agents) always takes under consideration some pathological background of inflammatory, hyperplastic, or cancerous<sup>2</sup> epithelial changes, presumably offering the stimulus for stromal fibroblastic transformation into osteoblasts. We highlight the importance of pathologists to be aware of the possibility that the presence of FMB does not necessarily means malignancy. There is always the possibility of ossification with mild clinical significance to the patient, which, however, should be monitored for a period of time, in case of a future malignant cellular alteration in the area.

**CONFLICT OF INTEREST**

None declared.

**AUTHORSHIP**

GT: wrote the manuscript. AF: involved in data collection, design, and final approval.

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**REFERENCES**

1. Ohtsuki Y, Danbara Y, Takeda I, et al. Metaplastic bone formation in a hyperplastic polyp of the stomach: a case report. *Acta Med Okayama*. 1987;41(1):43-46.

2. Zapata E, Castiella A, Zubiaurre L, Agirre A, Rodriguez J. Osseous metaplasia in a gastric adenomatous polyp. *Endoscopy*. 2012;44(S 02):E81.

**How to cite this article:** Tsoucalas G, Fiska A. Hyperplastic gastric polyp with foci of ossification. *Clin Case Rep*. 2018;6:1911–1912. <https://doi.org/10.1002/ccr3.1742>