

## A 57 Year Old Woman With Polypoid Gastric Mass

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A 57-year-old woman was referred with chief complaint of pallor and lethargy for 9 months. Laboratory investigation was notable for anemia and occult blood in the stool exam. Her past medical history was unremarkable. Endoscopy of the upper gastrointestinal tract showed a large fungative reddish mass measuring 7 x 6 cm in the body of the stomach and multiple variable size polyps in the antrum (figure 1). The patient underwent hemi-gastrectomy Billroth I. Gross examination of the stomach showed a large polypoid mass measuring 8x7x6 cm (figure 2) with erosive surface in some areas.

### What is your Diagnosis?



**Fig. 1:** Endoscopy, showing a large fungative mass



**Fig. 2:** Macroscopic view of hemi-gastrectomy specimen

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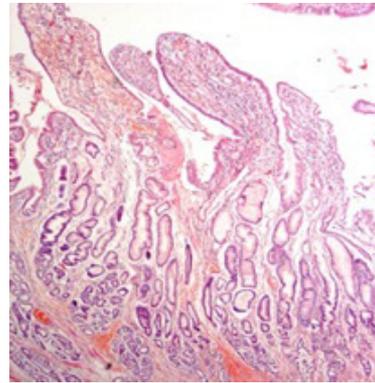
**Answer:**

Hyperplastic polyp.

Microscopic sections from the polypoid mass showed irregular, dilated and branching foveolae, which had formed small cysts in some areas. The stroma was hypervascular and edematous with acute and chronic inflammation. Scattered smooth muscle bundles were evident (figure 3). Surface erosion was seen in some areas and the epithelium was replaced with fibrin material and granulation tissue. No dysplastic change was seen in multiple and serial sections of the specimen. The diagnosis of hyperplastic polyp was made. There were also two other small hyperplastic polyps (measuring 0.5 and 0.4 cm in diameter) present in the body of the stomach. Non-polypoid mucosa of the stomach showed *Helicobacter pylori* infection.

Hyperplastic polyp is the most common type of polyp in the stomach.<sup>1</sup> These polyps can occur anywhere in the stomach with a slight preference for the antrum and are multiple in 20% of cases.<sup>1,2</sup> Hyperplastic polyps are usually smooth dome shaped and small in diameter but they may become larger and the largest reported has been 9 cm,<sup>1,2</sup> which was mistaken for carcinoma endoscopically.<sup>3</sup> In these larger polyps, surface erosion often occurs, resulting in chronic blood loss and iron deficiency anemia secondary to surface ulceration of the polyp. In our case the polyp was 8 cm and the patient presented with iron deficiency anemia. Rarely, these large hyperplastic polyps may present with gastric outlet obstruction.<sup>4,5</sup> Histologically, hyperplastic polyps are composed of characteristic hyperplastic, elongated and dilated foveolae lined by mature gastric mucosa surrounded by edematous inflamed stroma.<sup>2,3</sup>

The pathogenesis of hyperplastic polyps is unknown. It has been proposed that prominent reparative phenomena lead to hyperplastic polyps.<sup>1,3</sup> *Helicobacter pylori* and autoimmune gastritis leading to chronic gastritis is the common causative agents of mucosal injury.<sup>1,3</sup> Although less common agents causing chronic gastritis such as environmental gastritis, chemical gastropathy, Zollinger-Ellison syndrome, post-antrectomy stomach and post-solid organ transplant recipient may be predisposing factors.<sup>1</sup>



**Fig. 3:** The irregular, dilated and branching foveolae in the hypervascular and edematous stroma (H&E stain, ×100).

The size is only a prognostic factor<sup>2</sup> and larger polyps (especially >2 cm in diameter) are associated with a greater risk of malignancy. Due to the association between hyperplastic polyp and chronic gastritis followed by gastric atrophy (a known precancerous condition), when a hyperplastic polyp of any size with or without dysplasia is recognized, multiple topographically defined biopsy specimens should be taken.<sup>1,2</sup> If *Helicobacter pylori* gastritis is recognized, eradication of *Helicobacter pylori* as well as follow-up with endoscopy for monitoring eradication, recurrence, or regression of remaining polyps is necessary.<sup>2</sup> Several studies have showed the regression of hyperplastic polyps after eradication of *Helicobacter pylori* in many patients. However there is no data showing regression of hyperplastic polyps greater than 1 cm in diameter after *Helicobacter pylori* treatment.<sup>2,4</sup> Most gastroenterologists recommended the excision of polyps larger than 0.5 cm due to risk of malignancy.<sup>2,4</sup>

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#### CONFLICT OF INTEREST

The authors declare no conflict of interest related to this work.

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