

Case Report

Giant adenomatous polyp of stomach: Case report of a rare tumor with unusual features

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Abstract

Adenomatous polyps of the stomach are rare tumors and comprise < 10% of gastric polyps. They are usually located in the antrum and arise in a background of chronic gastritis and intestinal metaplasia. These tend to remain asymptomatic, but do carry significant risk of malignant change wherein underlies their importance. The magnitude of the risk of malignancy is not precisely defined, but is considered to be in the range of 5-15%, which increases with the size of the tumor. In this case report, we would like to highlight a large adenoma of stomach measuring 9 cm. This is the first case to the best of our knowledge to have attained such a huge dimension without any associated gastric pathology. Since synchronous carcinomas are known to exist in a large percentage of adenomas greater than 4 cm in size, this association should be kept in mind by both the gastroenterologist and pathologist so that any focus of malignancy if present, is not advertently missed.

Key words

Adenomatous polyp, giant, stomach

Introduction

Adenomatous polyps of the stomach are uncommon tumors, comprising only 7-10% of all gastric polyps.^[1] These appear as velvety exophytic masses that are sessile or broad-based, located mostly in the antrum and rarely measure beyond 4 cm. Adenomas are usually seen to arise in a background of chronic atrophic gastritis and intestinal metaplasia.^[1,2] They usually remain asymptomatic, but have a significant risk for malignant change wherein underlies their importance. This risk is not precisely defined, but is believed to be in the range of 5-15%, and increases with the size of the tumor.^[3]

In this case report, we attempt to highlight a large adenoma of stomach measuring 9 cm. This is the first case to the best of our knowledge to have attained such a huge dimension without any associated atrophic gastritis and intestinal metaplasia.

Case Report

A 52-year female presented with abdominal pain and nonspecific abdominal discomfort of 6 months duration. She had no other complaints. There was no history of any drug intake. Radiological and laboratory investigations done were normal. Upper gastrointestinal endoscopy revealed a large polypoidal growth in the stomach which was almost occupying the entire lumen [Figure 1a]. A diagnosis of the hyperplastic polyp with moderate dysplasia was given on endoscopic biopsy. Subsequently, a partial gastrectomy was done which revealed a single, large broad based, cauliflower-like growth measuring 9 × 8 × 3.5 cm in the body of the stomach [Figure 1b]. The tumor on cut section appeared greyish-white and firm. Rest of the gastric mucosa was unremarkable. The serosa appeared to be normal. There was no thickening of the wall of the stomach. Five lymph nodes received along with the specimen appeared to be grossly unremarkable. Microscopic examination of the tumor revealed a two-layered structure. The superficial portion showed complex, irregular, branching glands with a focal villous pattern lined by stratified epithelium, which appeared dysplastic. The nuclei were hyperchromatic, pleomorphic, and mitotic figures were present. Deep to this were seen hyperplastic cystic glands which did not exhibit any dysplasia [Figure 2]. Multiple sections studied, revealed no infiltration of lamina propria or muscularis mucosae. The

Access this article online

Website:

www.jdeonline.in

DOI:

10.4103/0976-5042.141933

Quick Response Code



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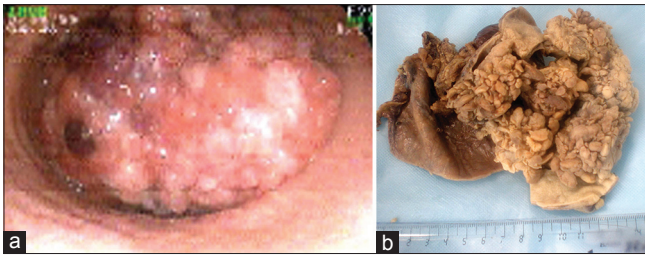


Figure 1: (a) Upper gastrointestinal endoscopy revealed a large polypoidal growth in the stomach which was almost occupying the entire lumen. (b) Partial gastrectomy done revealed a single, large broad-based, cauliflower-like growth measuring 9 × 8 × 3.5 cm

surrounding mucosa was normal and showed no evidence of chronic atrophic gastritis, intestinal metaplasia, or dysplasia and was free from *Helicobacter pylori* colonization. All the lymph nodes were free of tumor deposits. A final diagnosis of gastric tubulovillous adenoma with moderate dysplasia was given.

Discussion

WHO defines gastric adenomas as circumscribed, polypoid lesions composed of either tubular or villous structures lined by dysplastic epithelium.^[4] They are solitary, measuring up to 3-4 cm in size, and commonly located in the antrum.^[5,6] The incidence of gastric adenoma ranges from 0.5% to 3.75% in countries in the Western hemisphere, whereas it is reported to occur between 9% and 20% in nations with a high risk of gastric cancer. Adenomatous polyps need to be differentiated from the commoner hyperplastic polyps, which on microscopy show cystically dilated foveolar glands lined by hypertrophic, mucinous epithelium resembling goblet cells. Foci of dysplasia can rarely occur in a hyperplastic polyp, but the risk of malignancy is only about 0.5%.^[7]

In contrast, adenomatous polyps develop from neoplastic transformation of intestinal metaplasia on background of chronic atrophic gastritis. Espejo Romero and Navarrete Siancas^[8] in a study conducted on 2283 gastric polyps, found that the average age at presentation was 66.2 years, the average size observed was 14 mm (1.4 cm), and nearly two-thirds of all adenomas were smaller than 10 mm (1 cm). Our patient was a younger female of 52 years, with a large adenoma measuring 9 cm in the body of the stomach. The smaller average size of polyps could be possibly due to a more active surveillance. Though a giant fundic gland polyp has been described in the literature, this case is the first, to describe a giant adenoma of stomach.^[9]

Histologically, gastric adenomas may have a tubular, villous or tubulovillous architecture. Small tumors are usually tubular whereas large tumors are more likely to be villous.^[10] There is usually a sharp demarcation between the adenomatous epithelium and the adjacent mucosa which often shows features of atrophic gastritis and intestinal metaplasia.

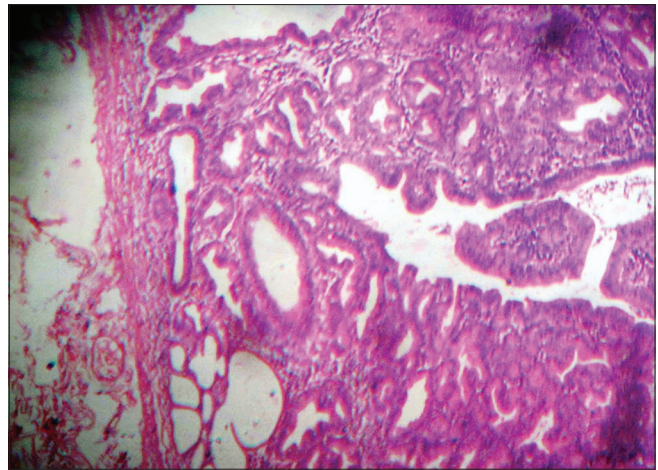


Figure 2: Microscopic examination of the tumor revealed a two-layered structure. The superficial portion showed complex, irregular, branching glands with a focal villous pattern lined by stratified epithelium, which appeared dysplastic. The nuclei were hyperchromatic, pleomorphic, and mitotic figures were present. Deep to this were seen hyperplastic cystic glands which did not exhibit any dysplasia. There was no infiltration of lamina propria or muscularis mucosae

Studies have shown that most patients with adenomas exhibited the above features or had evidence of *H. pylori* infection.^[3,8] Our case, despite the large size comprised of a mainly tubular pattern with only a focal villous architecture. It also did not show any associated gastric pathology and was free from *H. pylori* colonization.

The incidence of carcinoma in gastric adenomas is believed to be closely related to their size. The incidence of malignancy was 7% in tumors <2 cm in size but rose sharply to 86.2% in tumors larger than 4 cm.^[8] The degree of dysplasia is seen to vary considerably within an adenoma, and synchronous carcinoma is seen to coexist in a significant number of cases. It is, therefore, important that both the gastroenterologist and pathologist are aware of this association and a careful examination of the surrounding mucosa during endoscopy, or a thorough sampling of several sections in a resected specimen is undertaken to rule out any focus of malignancy.^[11]

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How to cite this article: Dudani S, Sahai K, Rathi KR, Mehta R. Giant adenomatous polyp of stomach: Case report of a rare tumor with unusual features. *J Dig Endosc* 2014;5:27-9.

Source of Support: Nil, **Conflict of Interest:** None declared.