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Case Report

Colonic Duplication Cyst with Gastric Heterotopia Haemorrhage and Mucosal Ulceration: A Case Report

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Abstract

Present report relates to duplication of ascending colon with cyst formation along with ectopia of gastric glands in lamina propria of colon. Heterotopia or ectopia is defined as presence of an organ outside its normal anatomic site. Ileum is the commonest site of heterotopia in gastrointestinal tract. Rarely, heterotopia may involve ascending colon. In the present case, cyst wall also had a thickened area, measuring 1×1×0.5 cm, consisting of hypertrophic muscularis. Cyst wall showed ulceration in continuity with colonic columnar epithelium. In addition, lamina propria also showed mixed leucocytic infiltration. The lesion was finally diagnosed as duplication of ascending colon with cyst formation and heterotopia of benign gastric glands, hemorrhage and ulceration.

Keywords: *Large intestinal cyst with two corresponding parts, ectopia of gastric glands with ulceration and haemorrhage.*

Introduction

Duplication cysts (DC) are congenital enteric cysts. Wall of these cysts consists of different layers of gastrointestinal tract, e.g. mucosa, submucosa and muscularis. DC rarely develops and occurs in pediatric age-group. In addition, ectopic tissue may be detected. Rarely, a malignant neoplasm may develop from a

developmental cyst. Herein, we report a case of a duplication cyst which was arising from ascending colon.

Case Report

A patient, aged 13 years complained of vomiting and pain in abdomen. He was operated and a cyst arising from outer colonic surface was excised. Cyst measured 9×6×2 cms. Thickness of the wall of cyst varied from 0.1 cm to 0.2cm. Cut surface of the cyst was dark greyish brown. It showed a thickened area, measuring 1×1×0.5 cm. The cyst also had a denuded area showing continuity with columnar epithelium of mucosa. Lamina propria showed mixed leucocytic reaction. Muscularis mucosa was hypertrophied. Areas of hyalinization and fibrosis were seen. Sheets of hemosiderin-laden macrophages were seen. Mucosa showed heterotopic gastric glands. Mucosa was also ulcerated at few places (figure 1).

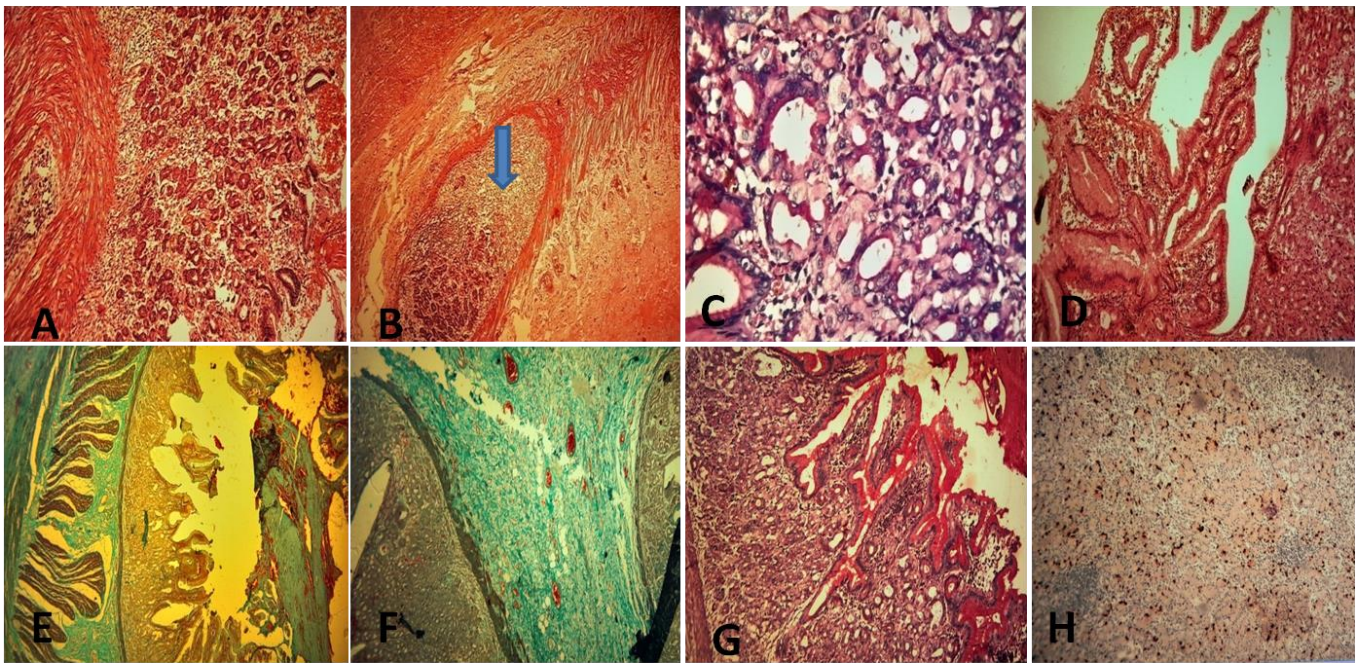

Figure 1: **(A)** Photomicrograph showed ectopic gastric glands in colonic lamina propria (HE×100). **(B)** Photomicrograph showed ectopic gastric glands and coagulative necrosis of glandular gastric parenchyma (HE×40). Arrow shows necrosis. **(C)** Gastric glands in mucosa of colon. Glands were variable in size and few glands were cystic (HE×200). **(D)** Upper half showed jejunal mucosa and lower half showed colonic mucosa and gastric glands (HE ×40). **(E)** Photomicrograph showed normal colonic mucosa (Masson's Trichrome ×40). **(F)** Showed dense fibrosis (Masson's Trichrome×40). **(G)** Showed colonic mucosa and ectopic gastric glands (PAS×40). **(H)** IHC using anti-chromogranin antibody showed mild diffuse, positive staining in ectopic gastric glands (IHC×40).

Discussion

Duplication cyst (DC) of digestive tract might develop rarely in colon. DC may be detected more frequently in ileum and jejunum as compared to colon. Large bowel DC might occur in 6.8% of all enteric DC[1]. Moreover, enteric DC with dysplasia was extremely rare lesions[1]. These cysts were usually found in terminal ileum in 60 % of cases, followed by jejunum and duodenum [1]. In addition, heterotopia in mucosa might be found in 50% cases of enteric DC [2]. DC might be of 2 types, e.g. cystic duplications which might occur in 80% cases and tubular elongated DC which might be found in 20 % of cases [3]. Duplication cyst primarily occurred as a congenital anomaly of pediatric age group (<2 years). Rarely, it might occur in an adult. Present case was a 13-year-old male who presented with constipation and vomiting. In addition, malena might also develop. Present case also had left-sided distension of abdomen. Ultrasonography (USG) revealed tubular DC for which he was operated and cyst was excised along with colonic wall. Rarely, double cysts (cecal and duodenal)

might develop [4]. Combinations were not detected in the present case. Duplication cysts might arise from any site in the gastrointestinal tract. Additionally, DC had several common features, e.g. DC might be a hollow structure, lined by mucosa of the gut. Finally, wall of DC might be composed of smooth muscle cells [5,6]. All these findings were detected in the present case. Complications like bleeding, perforation and malignancy might rarely develop. In the present case, the patient developed malena for which emergency operation was done. Resection of cyst along with excision of bowel wall might be the best treatment for long-term outcome [7]. Another important feature of present case was heterotopia of gastric glands in the wall of the ascending colon. Heterotopia of gastric tissue has been reported earlier by several investigators [8,9]. Another case of colonic DC occurring at submandibular region has been reported earlier. In the previous case, colonic mucosa replaced ulcerated area of cystic lining [10]. Moreover, the patient had difficulty in feeding. Later, he was operated and post-operative recovery was uneventful. Rarely, acute abdomen may also develop. Previous patient was 7 month old and had septic hypovolemic shock with severe anemia [9].

Conclusion (S)

Duplication cysts along with ectopia of gastric mucosa are extremely rare lesions. Excision of cyst in association with bowel wall might result in long-term cure.

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