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Case reports

HETEROTOPIC GASTRIC MUCOSA IN GALLBLADDER ASSOCIATED WITH KIDNEY AGENESIS AND CONGENITAL HIP DYSPLASIA

C. Çöl, Ç. Boran, V. Turkeli, K. Dinler, Ö. Kordon, H. Erkol, N. Sengul

Key words: heterotopia, gallbladder, kidney agenesis, congenital hip dysplasia

ABSTRACT

Heterotopic gastric tissue in the gallbladder is an extremely rare condition. There is not any specific clinical or laboratory finding and correct diagnosis is not possible before histopathological examination. Preoperative diagnosis usually resembles a polypoid lesion or a fixed gallstone. We reported a 34-year-old female patient with heterotopic gastric mucosa in the gallbladder associated with congenital hip dysplasia and kidney agenesis. Laparoscopic cholecystectomy was performed and histopathology of the resected specimen showed that the "polyp" consisted of heterotopic gastric mucosa with glands of body and fundic type. Some cases of heterotopia in the gallbladder come from metaplasia, and may be one of the causes of gall bladder cancer. We discussed the clinical and histologic features of heterotopic gastric tissues and reviewed reported cases in the literature.

INTRODUCTION

Heterotopia or Choristos is defined as the occurrence of normal tissue in an abnormal location of the body (1). Heterotopic gastric mucosa in the gallbladder is considered to be of congenital origin and it has been described in every part of the gastrointestinal tract from the oral cavity to the rectum.

Histologically, heterotopic gastric mucosa consists of fundic glands with parietal and chief cells and pyloric glands. Metaplastic changes are rarely seen in some cases and metaplasia is one of the most important factors in the carcinogenesis (2).

CASE REPORT

A 34-year-old woman who had no history of cholelithiasis presented to our hospital with dyspeptic symptoms and intermittent post-prandial epigastralgia. She had congenital left kidney agenesis and dislocation of the hip joint in her history. Her statement of congenital left kidney agenesis and hip dysplasia was confirmed by abdominal and pelvic ultrasonography and computerized tomography. On physical examination she had a slight tenderness of the right upper abdominal quadrant. Upper gastrointestinal endoscopy and the laboratory results including liver function tests were normal. Abdominal ultrasonography showed a highly echogenic polypoid mass in the fundus of gallbladder (Fig. 1). The patient was hospitalized and laparoscopic cholecystectomy was performed. The resected specimen demonstrated a 15mm polypoid lesion in the gallbladder (Fig. 2). Histological examination revealed that the polypoid lesion consisted of gastric tissue with parietal

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Figure 1: Ultrasonography shows an echogenic polypoid lesion of 15 mm in diameter at the gallbladder.

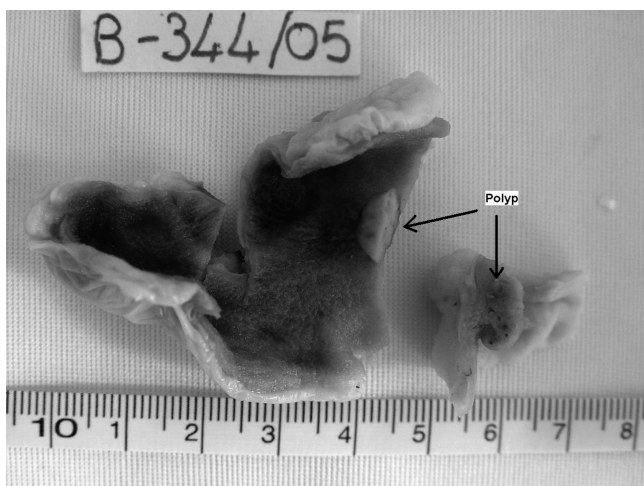


Figure 2: Macroscopic section view of the cholecystectomy specimen shows a 15mm polypoid lesion.

and columnar mucous secreting cells (Fig. 3A and 3B). The adjacent gallbladder mucosa showed typical features of chronic cholecystitis. No gallstone was found in gallbladder and no ulcer lesion or malignant cells were observed in heterotopic gastric tissue. The patient had no positive family history related to congenital anatomic abnormalities. She was married with two healthy children and her parents were healthy as well.

DISCUSSION

Heterotopic gastric mucosa in the gallbladder is an extremely rare condition and it was first described by Egyedi in 1934 (1). We found only 52 cases, 28 of which

were male, 24 female, with an age range of 6-77 years in the literature. To the best of our knowledge, this is the first case report of a heterotopic gastric mucosa in the gallbladder associated with congenital hip dysplasia and kidney agenesis.

Heterotopic gastric tissue has been reported in various organs and sites including the oesophagus (3), duodenum (4-6), jejunum (7,8), ileum (9), rectum (10) and gallbladder (1,2, 11-19). The gallbladder is an unusual location of gastric tissue (See. Table 1).

The correct preoperative diagnosis of heterotopic gastric tissue in gallbladder has never been obtained and the preoperative diagnosis was usually a polypoid lesion or a fixed gallstone with or without chronic cholecystitis. Heterotopic gastric mucosa may occur as a result of entrapment of primitive gastric tissue or heterotopic differentiation within the primitive gallbladder (19). Heterotopia is considered as a pathology with congenital origin.

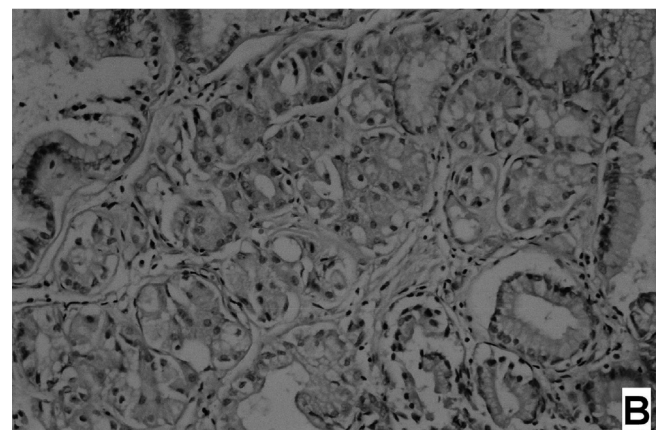
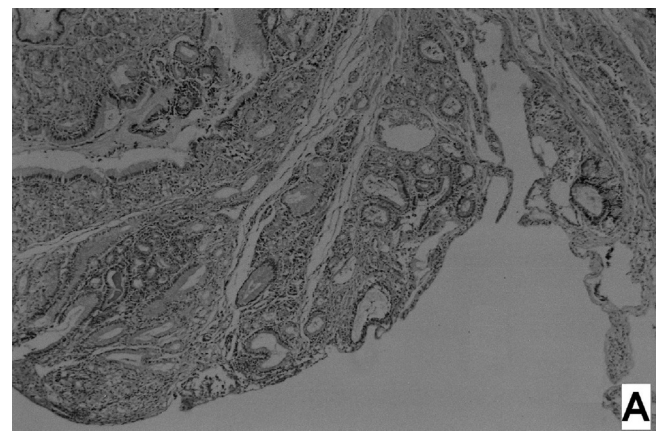


Figure 3: Microscopically, the polyp consists of gastric fundic glands with chief cells and parietal cells (H&E staining, A:50X, B:200X).

Table 1: Reported cases in the literature related with heterotopic gastric mucosa in the gallbladder

Authors	Age	Gender
Y. Ishii (1985)	58	F
M. Yamamoto (1989)	44	M
UMJ. Martinez (1990)	12	F
N. Lamont (1991)	12	M
D.U. Vallera (1992)	18	M
S. Uchiyama (1995)	23	M
P. Leyman (1996)	16	M
S. Wakiyama (1998)	25	F
M. Murakami (1999)	49	F
K. Hamazaki (2000)	39	M
Y. Inoue (2000)	63	M
N. Xeropotamos (2001)	78	M
N. Xeropotamos (2001)	62	F
I. Isik (2002)	26	M
C. Madrid (2003)	3	F
A.G. Bailie (2003)	7	F
L. Tavli (2005)	16	M
C. Sciume (2005)	43	M

Presentation of heterotopic gastric mucosa in gallbladder with congenital hip dysplasia and agenesis of kidney in the current case report further supports the theory for congenital etiology of heterotopia. To our knowledge, clinical presentation of heterotopia, agenesis of kidney and congenital hip dysplasia in the present case report has been described for the first time in medical literature. The association of three rare pathologies may be pure coincidence or a new syndrome. But there need to be more similar cases in order to claim a new syndrome.

Heterotopic gastric mucosa may be considered in the differential diagnosis of otherwise unexplained cholecystitis in young patients (19). The heterotopic gastric tissue is mostly situated in the neck of the gallbladder or cystic duct (11). Histopathological diagnosis of gastric heterotopia is based on the presence of fundic or pyloric mucosa replete with parietal and chief cells. Potential complications of heterotopic gastric mucosa are haemorrhage, perforation and obstruction, because of mucosal ulceration (17). Heterotopic gastric tissue may promote carcinogenesis and can be one of the causes of gallbladder cancer (1).

REFERENCES

- Xeropotamos N, Skopelitou AS, Batsis Ch, Kappas AM. Heterotopic gastric mucosa together with intestinal metaplasia and moderate dysplasia in the gall bladder: report of two clinically unusual cases with literature review. *Gut* 2001; 48: 719-23.
- Yamamoto M, Murakami H, Ito M, Nakajo S, Tahara E. Ectopic gastric mucosa of the gallbladder: comparison with metaplastic polyp of the Gallbladder. *Am J Gastroenterol* 1989; 84: 1423-6.
- Nuytinck JK, Lubbers EJ. Ectopic gastric mucosa in the lower esophagus, presenting as a sessile polyp. *Neth J Surg* 1986; 38(6):175-6.
- Russin V, Krevsky B, Caroline DF, Tang CK, Ming SC. Mixed hyperplastic and adenomatous polyp arising from ectopic gastric mucosa of the duodenum. *Arch Pathol Lab Med* 1986;110(6): 556-8.
- Tsadilas T. Duodenal polyp composed of ectopic gastric mucosa. *Dig Dis Sci* 1984; 29(5): 475-7.
- Pasic F, Kesic V, Jokic A, Radovic S. Duodenal polyps of gastric origin *Med Arh* 1993; 47(3-4): 95-6.
- Erez I, Kovalivker M, Lew S, Lazar L, Motovic A. Ectopic gastric mucosa in a polyp causing ileo-ileal intussusception: a case report of a three-month-old baby. *Eur J Pediatr Surg* 1991;1(2):118-20.
- Nowak M, Deppisch L. Giant heterotopic gastric polyp in the jejunum. *Arch Pathol Lab Med* 1998; 122(1): 90-3.
- Turck D, Bonnevalle M, Gottrand F, Farriaux JP. Intraoperative endoscopic diagnosis of heterotopic gastric mucosa in the ileum causing recurrent acute intussusception. *J Pediatr Gastroenterol Nutr* 1990; 11: 275-8.
- Steele SR, Mullenix PS, Martin MJ, Ormseth E, Weppler E, Graham J, Place RJ. Heterotopic gastric mucosa of the anus: a case report and review of the literature. *Am Surg* 2004; 70(8): 715-9.
- Inoue Y, Shibata T, Niinobu T, Ishida T, Sato T, Hanada M. Heterotopic gastric mucosa in the gallbladder: sonographic and CT findings. *Abdom Imaging* 2000; 25(2): 198-200.
- Uchiyama S, Imai S, Suzuki T et al. Heterotopic gastric mucosa of the gallbladder. *J Gastroenterol* 1995; 30: 543-6.
- Hamazaki K, Fujiwara T. Heterotopic gastric mucosa in the gallbladder. *J Gastroenterol* 2000; 35(5): 376-81.
- Wakiyama S, Yoshimura K, Shimada M, Kajiyama K, Sugimachi K. Heterotopic gastric mucosa in a gallbladder with an anomalous union of the pancreatobiliary duct: a case report. *Hepato-Gastroenterology* 1998; 45:1488-91.
- Leyman P, Saint-Marc O, Hannoun L, Parc R. Heterotopic gastric mucosa presenting as gallbladder polyps. *Acta Chir Belg* 1996; 96(3):128-9.
- Larsen EH, Diederich PJ, Sorensen FB. Peptic ulcer in the gallbladder. A case report. *Acta Chir Scand* 1985; 151(6): 575-6.
- Boyle L, Gallivan MVN, Chun B, Lack EE. Heterotopia of gastric mucosa and liver involving the gallbladder: report of two cases with literature review. *Arch Pathol Lab Med* 1992; 116:138-42.
- Lee SI, Kim YS, Cho SW et al. Gastric Heterotopia in the Gallbladder. *Korean J Gastrointest Endosc* 1995; 15(4): 797-802.
- Vallera DU, Dawson PJ, Path FRC. Gastric heterotopia in the gall bladder: case report and review of literature. *Pathol Res Pract* 1992; 188: 49 -52.