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Gastric Endometriosis

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Objectives: First reported in 1950, endometriosis is characterized by the presence of endometrial glands and stroma outside the endometrial cavity. **Methods:** A forty year old Mongolian woman had symptoms of epigastric and right upper quadrant pain, slow digestion, early satiety, and occasional diarrhea when diagnosed with gastroptosis in 2014. In December 2016, her symptoms became more severe and, at times, dry food would become stuck in her throat. **Results:** The patient was successfully treated by surgery and has not shown evidence of recurrence, although prolonged observation is necessary. **Conclusion:** The treatment of choice for extrapelvic endometriosis is surgical resection.

Keywords: Endometriosis, Gastrointestinal Stromal Tumors

Introduction

First reported in 1950, endometriosis is estimated to affect 1 in 10 women, approximately 176 million women, during their reproductive years (15-49) [1,2]. Endometriosis is characterized by the presence of endometrial glands and stroma in an ectopic location outside of the endometrial cavity. The presence of extrapelvic endometriosis is seen only in 10% of all diagnosed cases. Frequent locations for extrapelvic endometriosis include a variety of tissues and organs, such as intestines, kidneys, lungs, skin, and pleura [3]. More than 100 cases of thoracic endometriosis have been reported, with lesions involving the pleura or lung parenchyma [4]. Fifty to eighty percent of patients with extrapelvic endometriosis have co-existent pelvic endometriosis that is usually severe.

Endometriosis affects the gastrointestinal tract in 5% of cases, with the sigmoid colon being the most commonly affected location, followed by the rectum [5,6]. To the best of our knowledge, our case is among the first reports of gastric endometriosis. Our case of gastric endometriosis initially

Table 1. Laboratory Hematology Results

Antigens	Reference	Result
Carcinoembryonic antigen (CEA)	0-10 mg/dL	1.25 mg/dL
Cancer Antigen (CA)-19.9	0-37 u/ml	15.89 u/ml

presented as a gastric tumor.

Healthy women may loose endometrial cells, but a destruction of the uterine cavity would be an identifier of endometriosis. Negative symptoms of destruction include chronic abdominal pain, loss of menstrual cycle, and infertility.

Case Report

Our patient was a 40 year old women, born in 1976 in the Dornod aimag, Choibalsan province. She is married and living with her husband and two children, who were born through uterine delivery. She was fully vaccinated, and her medical and family histories were unremarkable. She had no prior surgeries and was admitted to hospital on November 14, 2016 with no particular remarks on her family or medical history and physical examination. At admission, she had a body temperature of 36°C, pulse rate of 78 beats per minute, respiratory rate of 18 breaths per minute, and blood pressure of 110/80 mmHg. Her laboratory hematology and biochemical urine analysis results were normal (Table 1). HIV, HBsAg, Anti-HCV were all negative.

She had epigastric pain, right upper quadrant pain, slow digestion, nausea, vomiting, early satiety, and occasional diarrhea, and was diagnosed with gastroptosis in 2014. In December 2016, her symptoms became more severe and, at times, dry food would become stuck in her throat.

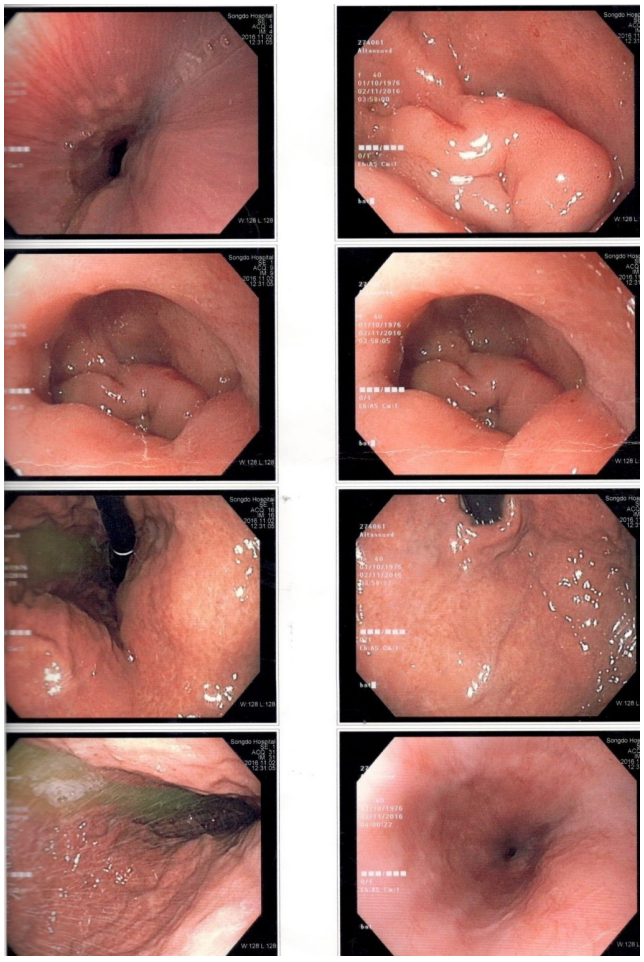

Figure 1. The gastroduodenoscopy impression indicated diffuse superficial gastritis and an extra luminal compressed mass or submucosal tumor (SMT) in prepylori major curvature with stenosis bile reflux.

Figure 2. Computed tomography (CT) of the abdomen, which revealed gastroptosis.

Figure 3. The CT of the abdomen showed 1) about 4.3*3.5 cm hypodensity mass line lesion in the anterior wall of peripyloric portion with high luminal narrowing, 2) small (0.5 cm) hypodensity focus in the pancreatic body, suggestive of tiny intraductal papillary mucinous neoplasm (IPMN), 3) small renal cysts, and 4) several para-aortic lymph nodes (less than 1, 2 cm).

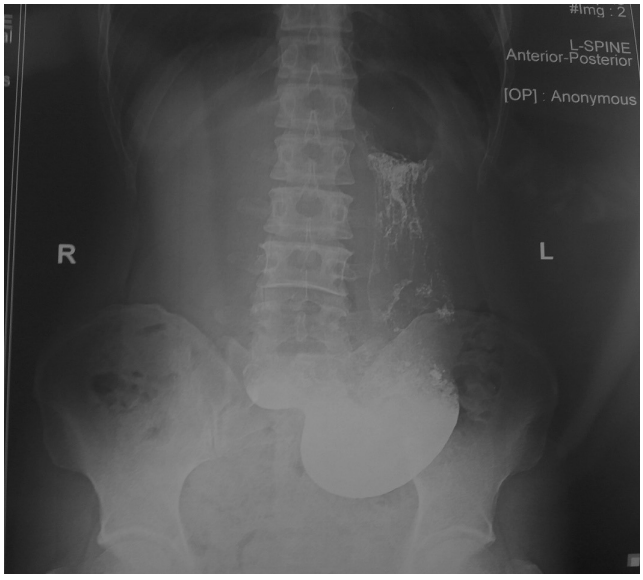

Figure 4. X-ray with contrast impression was that the fundus of the stomach is stretched to the lower pelvis, and lesser curvature was located by the spine (L5). 3rd stage gastroptosis preoperative diagnosis was gastric tumor and 3rd stage gastroptosis; and the operation was laparoscopic Billroth II subtotal gastrectomy and abdominal lavage and drainage.Laparoscopic distal gastrectomy and anastomosis gastrojejunostomy was performed. The excised surgical specimen was 6 cm by 5 cm. The histopathological evaluation revealed multiple endometrioid glands and stromal nests in the gastric mucosa and muscularis propria, a feature compatible with endometriosis.

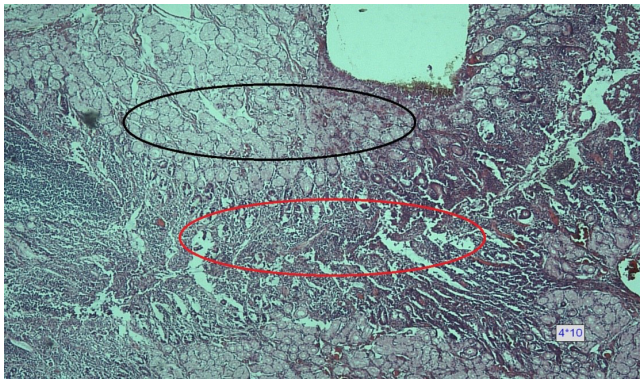

Figure 5. Histopathology (H&E stain, 10×10) labeled with red circle indicating endometrioid glands and black circle indicating gastric glands.

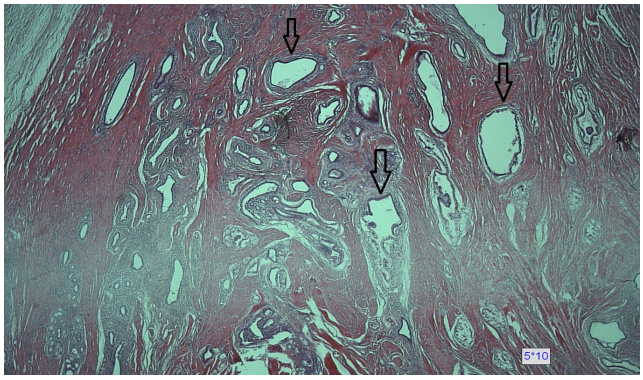

Figure 6 Histopathology showing multiple endometrioid glands and stromal nests present in gastric mucosa and muscularis propria, and invasion of endometrioid glands to gastric muscular layer.

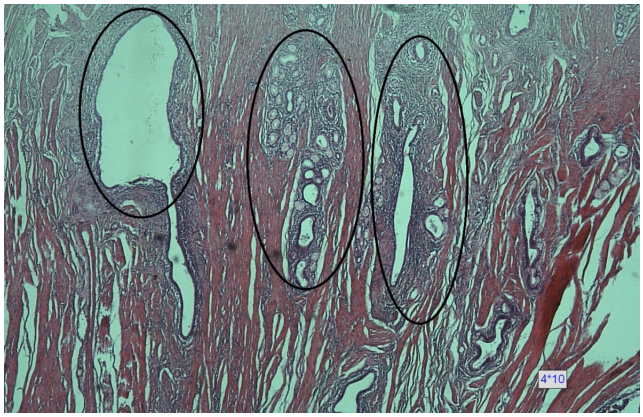

Figure 7 Histopathology showing multiple endometrioid glands and stromal nests present in gastric mucosa and muscularis propria, and invasion of endometrioid glands to gastric muscular layer.

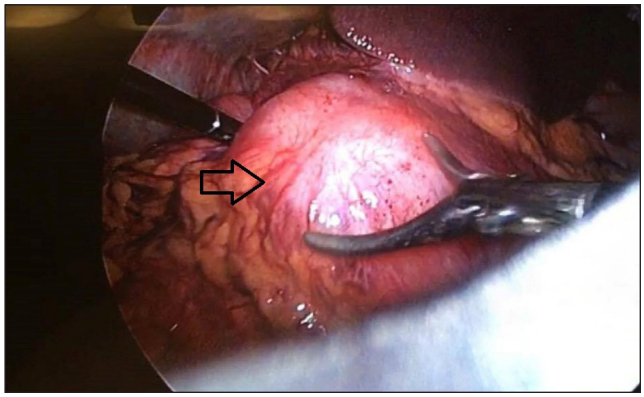

Figure 8. During operation.

Discussion

According to a review article in the New England Journal of Medicine, endometriosis is one of the top three causes of female infertility [7]. Though it is one of the most treatable diseases, it remains the least treated. The gastro-intestinal tract is the most common location for extrapelvic endometriosis, with over 1,000 cases reported [8-12]. Gastric endometriosis is a benign, chronic gynecological disorder, which may be complicated by infertility. The disease is oestrogen dependent, usually affecting women in their childbearing years, and is usually asymptomatic but may present with abdominal pain, pelvic pain, constipation, nausea, vomiting, obstruction, and/or intussusceptions. In Mongolia, there has not been enough data and research on endometriosis and particularly extrapelvic endometriosis, due to the rarity of the condition. This case is the first gastric endometriosis to be recorded from Mongolia.

The infrequent reports of gastric endometriosis make it difficult to formulate strategies for differential diagnosis and treatment. We did not suspect endometriosis as a part of our differential diagnosis and failed to obtain preoperative confirmation of gastric endometriosis. In our case, the proposed differentials were gastorintestinal stromal tumor (GIST) and desmoid tumor. Surprisingly, the postoperative histopathological examination confirmed extrapelvic gastric endometriosis.

Endoscopic ultrasound (EUS), contrast-enhanced CT, and endoscopic ultrasound-guided fine needle aspiration (EUS-FNA) have been recommended for subepithelial tumors between 2 to 5 cm [13]. We would also recommend preoperative histologic confirmation using EUS-FNA or incision biopsy. In cases of extrapelvic endometriosis, surgical resection with safety margins of at least 1 cm is considered the treatment of choice [14]. Although prolonged observation of our case is necessary on conclusive recommendations, we agree that surgical resection should be considered the primary treatment option.

Gastric endometriosis is the rare, with few reported cases. In almost all cases of extrapelvic endometriosis, surgical resection of the lesion was the treatment of choice. Surgical resection results in complete cure with no reoccurrence in up to 95% of patients and recurrence in 4.3% of patients. In a study of symptomatic intestinal endometriosis by Kaufman et al., 9 of the 83 patients (10.8%) who underwent surgical resection had suspected recurrence within a few years [15]. The patient in the present case has not shown any evidence of recurrence to date.

Conflict of Interest

The authors state no conflict of interest.

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