psychiatric status was associated with poor cooperation with healthcare staff.

Our intraoperative finding that the Barrett’s mucosa was thicker and offered more tensile strength than that of other perforations (such as the friable tissue of Boerhaave’s syndrome) is supported by other studies [8]. Barrett’s esophagus consists of metaplasia that replaces normal esophageal stratified squamous epithelium to “specialized epithelium” comprising goblet cells and columnar mucous cells that resemble gastric surface epithelium. That can be distinguished from Boerhaave’s syndrome in which spontaneous esophageal tears occur at sites of weakness in the esophageal wall (sometimes devoid of muscularis mucosa) but with normal stratified squamous epithelium. Patients with Barrett’s esophagus are noted to have a muscular fibrinous anomaly that results in localized fibrosis and a thickening of the muscularis mucosae, smooth muscle hypertrophy, and lamina propria extension. Furthermore, Barrett’s esophagus is also associated with a duplication of the muscularis mucosae. Together, these have been associated with diagnostic difficulties for Barrett’s-related adenocarcinoma [8]. Paradoxically in our case, the thickened and fibrotic Barrett’s tissue may have assisted in the security and strength of our sutures and may have contributed to the successful surgical outcome.

In conclusion, we describe, to the best of our knowledge, the first case of spontaneous esophageal perforation of a Barrett’s ulcer managed by thoracoscopic repair. This case highlights the feasibility of minimally invasive methodology for emergent esophageal disorders. It also demonstrates the altered properties of the esophageal wall in Barrett’s esophagus through muscular fibrinous thickening and muscularis mucosae duplication that may contribute to the technical outcomes of esophageal surgical management.

References

Resection of Esophageal Carcinoma During Pregnancy
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Esophageal carcinoma diagnosed during pregnancy is a rare occurrence. A 26-year-old pregnant patient was referred to our hospital with dysphagia. A thorough examination showed a tumor in the esophagus. Laparotomy, thoracotomy, and cervical exploration were performed. There are only 2 cases reported in the literature about esophageal carcinoma diagnosed during pregnancy and treated surgically. However, ethical dilemmas arise in managing such situations. Here we report a case of esophageal squamous cell carcinoma diagnosed at 27 weeks of gestation in which surgical resection was performed successfully. (Ann Thorac Surg 2015;99:333–5) © 2015 by The Society of Thoracic Surgeons

A 26-year-old multiparous patient at the 27th week of her pregnancy was referred to our clinic with the complaints of dysphagia and weight loss. A midesophageal tumor was diagnosed by gastroscopy. Computed tomography of the thorax revealed a tumor blocking the esophagus (Fig 1). As the patient was pregnant, she was not considered to be a suitable candidate for neoadjuvant treatment (chemoradiotherapy), radiologic staging was done, and as the tumor was not a radiologic T4 tumor the patient was scheduled for surgical treatment. A gynecology consultation was obtained and the decision was not to terminate the pregnancy. Steroid and progesterone therapy was initiated for the prevention of premature birth. Esophagectomy, esophagogastrostomy, and feeding jejunostomy were performed through right thoracotomy, laparotomy, and cervical exploration at 28 weeks of pregnancy (Fig 2). Upon the diagnosis of left pneumothorax in the early postoperative period, tube thoracostomy was performed. Total parenteral nutrition was given for 2 weeks. As the patient was lost to follow-up, there was no information on the follow-up period.

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and enteral nutritional support was provided during the postoperative period. The chest tube was removed on postoperative day 7 after the initiation of oral intake. Mechanical ventilatory support was provided on postoperative day 22 due to respiratory failure caused by candida sepsis developed on postoperative day 11. The patient had a normal vaginal delivery with the start of labor at 32 weeks of gestation. After delivery the baby was examined and, as there was no evidence of complications, it was transferred to the neonatal care unit to be monitored. The patient had a cardiac arrest on postoperative day 35 and she was successfully revived. Mechanical ventilatory support was provided for 28 days and discontinued on postoperative day 41. As the pathologic examination of the resected specimens showed T3N1M0 squamous cell carcinoma, chemoradiotherapy was planned after consultations were made with the medical and radiation oncology, and the patient was discharged on postoperative day 57 (Fig 3). Radiation therapy was started but terminated due to radiation-induced esophagitis. The patient did not want to undergo chemotherapy. At postoperative 16 months, the patient was alive with no evidence of recurrence and metastasis according to clinical and radiological examinations, and her baby was also healthy (Fig 4).

Comment

Occurrence of esophagus cancer during pregnancy is a very rare situation. To our knowledge there are only 2 pregnant women diagnosed with esophageal cancer in the English literature. In the case reported by Sharma and colleagues [1], after caesarean section the patient underwent thoracotomy for esophageal adenocarcinoma extending to the cardia; however, the patient was considered inoperable because of liver and diffuse metastases.

Fig 1. Preoperative thorax computed tomography revealing a tumor blocking the esophagus.

Fig 2. The view of the uterus at laparotomy at 28 weeks of pregnancy.

Fig 3. Pathologic examination of the resected specimen showed T3N1M0 squamous cell carcinoma.

Fig 4. Postoperative thorax computed tomography at 16 months postoperatively showing no evidence of recurrence and metastasis.
lymph node metastasis and was referred for palliative therapy. In the case report of Al-Githmi [2], squamous cell esophageal cancer was diagnosed in a pregnant woman; after caesarean section, a right thoracotomy was performed. However, the tumor could not be resected because of invasion to the right main bronchus and lung parenchyma. The patient was planned to receive palliative chemotherapy and radiotherapy; however, she died after 4 months. The case presented herein is the only patient who underwent surgical resection and survived after 16 months of surgery. Although there are a sufficient number of cases with gastric cancer diagnosed during pregnancy to establish a treatment algorithm, this is not the case for esophageal cancer. Therefore, although there is no standard approach to the management of esophageal cancer during pregnancy, the approach to the gastric and colorectal cancers are taken as an example [1, 2].

Ueo and colleagues [3] established a treatment plan according to gestational week and tumor stage in their publication on gastric cancers diagnosed during pregnancy. They recommended surgical abortion if the tumor was diagnosed before 25 weeks of gestation. For patients diagnosed between 25 and 29 weeks of gestation, it was recommended that treatment should be established according to tumor stage. Even though it could pose risks for the fetus, resection was recommended in resectable tumors. They stated that the treatment could be postponed to the 30th week of gestation in order to ensure the survival of the fetus if the tumor was in early stages. The recommended approach for patients diagnosed after the 30th week of gestation was to perform radical surgery after birth [3]. Our patient, at the 27th week of gestation, had undergone a multidisciplinary evaluation and the decision was to continue with the pregnancy.

Gastric cancers diagnosed during pregnancy are associated with poor prognosis and survivability. Particularly, the necessity of upper gastrointestinal endoscopy is highlighted for pregnant women with weight loss and hematemesis in the early stages of pregnancy [4].

In the differential diagnosis of pregnant women with gastrointestinal symptoms, esophageal cancer should also be considered. An early diagnosis may allow curative surgery without terminating the pregnancy.

This paper is of value for several reasons, including the rarity of esophageal cancer during pregnancy, and the successful approach to the mother and the baby; surgical resection was successfully completed during pregnancy, the mother gave birth to a healthy child, and at the follow-up appointment 16 months after surgery, the patient had no problems of swallowing and no evidence of recurrence and metastasis. The patient reported here is the only pregnant patient with esophageal cancer who is alive after 16 months from surgery.

References