Rak želodca v nosečnosti – diagnostična in terapevtska dilema: prikaz primera

Gastric cancer in pregnancy – diagnostic and therapeutic dilemma: Case Report

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Izvleček

Namen: *Rak želodca v nosečnosti je redka bolezen, ki jo je težko diagnosticirati zaradi prekrivanja simptomov raka in normalne nosečnosti.*

Metode: *Predstavljamo primer 31-letne bolnice, sprejete v 36. tednu nosečnosti zaradi prebavnih težav, slabosti in bruhanja. Zaradi hude sideropenične anemije in pozitivnih hematestov blata smo opravili gastroskopijo, ki je prikazala razjedo male krivine želodca. Histologija je razkrila slabo diferenciran adenokarcinom z mešanimi tubularnimi in obročastimi celicami.*

Rezultati: *10. dan po sprejemu smo opravili carski rez, ki mu je sledila totalna gastrektomija z odstranitvijo regionalnih bezgavk in omentektomijo. Bolnica je zavrnila pooperativno*

Abstract

Background: *Gastric cancer during pregnancy is a rare disease that is difficult to diagnose due to the overlapping symptoms of cancer and normal pregnancy.*

Methods: *We present the case of a 31-year-old patient who was admitted in the 36th week of pregnancy with complaints of digestive disturbance, nausea and vomiting. Severe sideropenic anemia and the presence of blood in stools prompted us to perform gastroscopy, which showed an exulcerated lesion of the lesser curvature of the stomach. Histology revealed poorly differentiated adenocarcinoma with mixed tubular and signet ring cells.*

Results: *Cesarean section followed by total gastrectomy with dissection of the regional lymph nodes and omentec-*

radio- in kemoterapijo in umrla enajst mesecev in dva tedna po operaciji želodca.

Zaključek: *Za zdravljenje karcinoma želodca v nosečnosti ni sprejetih smernic. Zdravljenje je odvisno od gestacijske starosti ploda in razširjenosti bolezni, potrebno pa je upoštevati tudi želje bolnice. Med nosečnostjo je potrebno uporabiti neinvazivne metode in se izogibati invazivnim metodam, če je le mogoče.*

tomy was performed on the 10th day after admission. The patient refused postoperative radiotherapy and chemotherapy and died 11 months and 2 weeks after gastric resection.

Conclusion: *There are no approved guidelines for the management of gastric cancer during pregnancy. Treatment is determined according to the gestational age of the fetus and the extent of gastric cancer at the time of diagnosis. The patient's wishes must also be taken into consideration. Non-invasive methods should be used during pregnancy and invasive methods should be avoided whenever possible.*

BACKGROUND

Gastric cancer diagnosed during pregnancy is an extremely rare event. At the time of diagnosis, the disease has often reached an advanced stage for which curative measures are not possible and the outcome is usually poor with death often occurring soon after diagnosis (1). We report the case of a 31-year-old woman for whom advanced gastric cancer was diagnosed in the 36th week of pregnancy.

CASE PRESENTATION

A 31-year-old nulliparous woman in the 36th week of gestation was admitted with complaints of digestive disturbance, nausea and vomiting, and concerns regarding her lack of weight gain during pregnancy. The patient had already been admitted to the same obstetric department with similar complaints in the 16th and 32nd weeks of pregnancy; however no additional diagnostic measures were undertaken.

An obstetric ultrasound performed in the 36th week of gestation confirmed a small but apparently healthy fetus.

Laboratory testing revealed severe sideropenic anemia, hypoproteinemia and elevated levels of the tumor marker CA 19-9 to twice its normal value. A fecal occult blood test revealed blood in the stool. Gastroscopy was performed and demonstrated a deep exulcerated lesion on the lesser curvature of the stomach, strongly indicative of gastric cancer. Histology revealed poorly differentiated adenocarcinoma with mixed tubular and signet ring cells, and a mixed type according to Lauren's classification.

A 45-mm long and 13–15 mm thick induration of the stomach displaying significant vascularization was observed by an abdominal ultrasound.

Multidisciplinary surgery was performed on day 10 after admission. Following cesarean section, total radical gastrectomy, omentectomy, resection of the peritoneal layer of the gastrocolic ligament and the pancreas, and D2 lymphadenectomy was performed. No major complications were observed postoperatively.

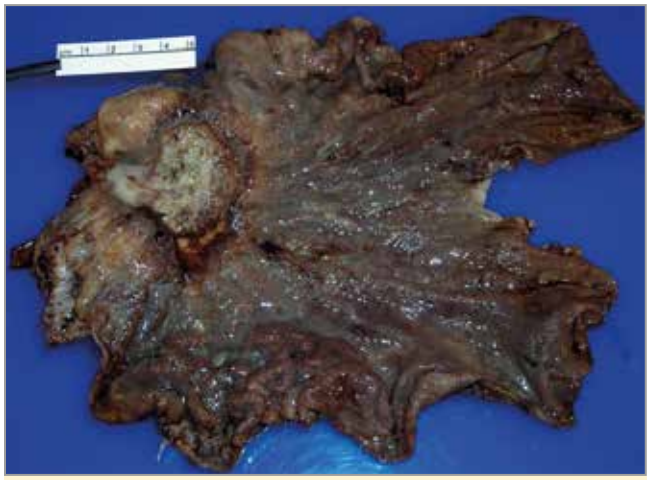

Figure 1. *The histological specimen of the resected stomach*

Histological examination revealed a pT4aN3M1 adenocarcinoma of the stomach measuring 10.5 × 8.5 cm, which was poorly differentiated with mixed tubular and signet ring cells (Fig. 1) and defined as UICC stage IV. The tumor had penetrated the stomach wall and invaded the omentum minus. All of the 36 identified lymph nodes tested positive.

A healthy 2570 g girl with 1- and 5-minute Apgar scores of 9 and 9, respectively, was delivered.

Chemotherapy and radiotherapy were proposed but the patient refused any further oncological treatment. Skin and small bowel metastases were diagnosed 8 months after surgery. A skin lesion was excised. General miliary carcinosis of the whole abdomen and intestine was observed upon opening of the abdominal cavity and no further action was undertaken. The patient refused palliative chemotherapy.

The patient died from progression of gastric carcinoma 11.5 months after gastric resection.

DISCUSSION

The incidence of gastric cancer in Slovenia in 2007 was 17.7/100,000 for the female population (2). It is estimated to occur during pregnancy in 0.01%–0.1% of cases (3) with a very poor prognosis (1) as detection usually occurs in the advanced stages (1,4).

Symptoms usually associated with the disease are nausea, vomiting, dyspepsia, epigastric pain, dysphagia, anemia, anorexia, weight loss and melena (5). However gastrointestinal symptoms may not necessarily be present (6). Most of the symptoms are easily dismissed as common complaints associated with pregnancy (5). Gastric cancer can also present as a Krukenberg tumor (4).

Endoscopic examination has been reported to be safe in pregnancy and risk to the fetus can be minimized by avoiding unnecessary medication (7). Nausea and vomiting that persist into the second half of pregnancy should not be regarded as normal (8) and close follow-up is suggested after the first trimester if unusual or persistent gastrointestinal symptoms do not subside (9). Management of gastric cancer during pregnancy should be determined based on the gestational age of the fetus as well as the stage of the disease. Chan et al. (10) proposed surgery and the termination of pregnancy for a gestational age of less than 24 weeks, stimulation of lung maturation between 24 and 32 weeks, and immediate delivery after the 32nd week (10). In the majority of cases, cesarean section is performed simultaneously with cancer surgery (11).

Unresectable cases could be offered neoadjuvant chemotherapy since chemotherapy in the third trimester of pregnancy has not been proven to be harmful for later development of the offspring (12). This could also help bridge the time necessary for maturation of the fetal lungs.

Treatment of gastric cancer during pregnancy is complex and treated on an individual basis due to the rarity of the disease. It should be guided by gestational age and the cancer stage as well as the patient's personal wishes. Common obstetric complaints such as nausea and vomiting that persist into the second and third trimesters of pregnancy should not be regarded as normal. Among the possible additional diagnostic procedures, a fecal occult blood test represents a noninvasive method of detecting gastrointestinal hemorrhage. Retrospectively we can conclude that less invasive procedures, such as a fecal occult blood test and an abdominal ultrasound, could have been performed when the patient was first admitted at 16 weeks of gestation. A positive occult blood test would have prompted us to perform gastroscopy. The same is true for the second admission at 32 weeks of gestation.

REFERENCES

1. Lee HJ, Lee IK, Kim JW, Lee KU, Choe KJ, Yang HK. Clinical characteristics of gastric cancer associated with pregnancy. Dig Surg 2009; 26(1): 31-6.
2. Primic Žakelj M, Bračko M, Hočevar M, Krajc M, Pompe-Kirn V, Strojan P, et al, editors. Cancer in Slovenia 2007. Ljubljana: Institute of Oncology Ljubljana, Epidemiology and Cancer Registry, Cancer Registry of Republic of Slovenia; 2010.
3. Yoshida M, Matsuda H, Furuya K. Successful treatment of gastric cancer in pregnancy. Taiwan J Obstet Gynecol 2009; 48(3): 282-5.
4. Co PV, Gupta A, Attar BM, Demetria M. Gastric cancer presenting as a krukenberg tumor at 22 weeks' gestation. J Gastric Cancer 2014; 14(4): 275-8.
5. Khatib F, Shaya M, Samueloff A. Gastric carcinoma with metastasis to the placenta and amniotic fluid: case report and review of the literature. Eur J Obstet Gynecol Reprod Biol 2003; 107(2): 208-9.
6. Wang H, Lu J, Wei P, Zhang M, Wang X, Zhang Z. Maternal gastric carcinoma without gastrointestinal symptoms. Int J Gynaecol Obstet. 2015; 128(3): 273-4.
7. Cappell MS. Risks versus benefits of gastrointestinal endoscopy during pregnancy. Nat Rev Gastroenterol Hepatol 2011; 8(11): 610-34.
8. Bacic B, Misic Z, Kovacic V, Sprung J. Gastric carcinoma presenting as pericardial tamponade during pregnancy. Turk J Gastroenterol 2009; 20(4): 276-8.
9. Ozdemir I, Pehlivan M, Demirci F. Gastric cancer in pregnancy. Int J Gynecol Obstet 2003; 82(2): 207-8.
10. Chan YM, Ngai SW, Lao TT. Gastric adenocarcinoma presenting with persistent, mild gastrointestinal symptoms in pregnancy. J Reprod Med 1999; 44(11): 986-8.
11. Ueo H, Matsuoka H, Tamura S, Sato K, Tsunematsu Y, Kato T. Prognosis in gastric cancer associated with pregnancy. World J Surg 1991; 15(2): 293-7.
12. Nishie H, Mizushima T, Suzuki Y, Fukusada S, Inoue T, Kachi K, et al. Chemotherapy treatment of a pregnant woman with progressive gastric cancer. Intern Med 2015; 54(10): 1207-12.