CASE REPORT

Pregnancy as a risk factor for undertreatment after bariatric surgery

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SUMMARY

A pregnant woman presented at the emergency department with severe nausea and vomiting at 20 weeks of gestational age; she was known with gastric banding. Advanced imaging studies were avoided of fear to harm the fetus. The patient continued to vomit and at 23 weeks intrauterine fetal death was noted. The symptoms did not resolve after delivery and CT scan demonstrated slippage of the gastric band over the pylorus resulting in a high digestive obstruction as the cause of hyperemesis and finally resulting necrosis of the vasa brevia. The gastric band was laparoscopically removed along with the necrotic tissue. Avoidance of radiological and endoscopic investigations of fear to harm the pregnancy resulted in complications and possibly in fetal death.

BACKGROUND

The patient was misdiagnosed and undertreated due to the fact that she was pregnant. If correct diagnostic measures had been taken during her stay in the hospital a mors in utero and its consequences might have been prevented. Care should be given not to undertreat pregnant women because of fear to harm the pregnancy.

CASE PRESENTATION

A 30-year-old woman, gravida 2, para 1, presented at the emergency department at 20 weeks of gestation with repeated periods of nausea and massive vomiting. Five years earlier she had a gastric banding, 2 years before this pregnancy the band was removed due to slipping and difficulty to pass any food, 1 year before the event a second gastric banding had been performed.

At 9 weeks of pregnancy she had been admitted with symptoms of nausea and vomiting, diagnosed as hyperemesis gravidarum and the patient was treated with intravenous fluid and anti-emetics, after which she was discharged home. At 20 weeks of pregnancy she was readmitted with excessive vomiting and signs of dehydration. Viral gastroenteritis was suspected (as there was a regional epidemic at that moment) and the patient was discharged after 3 days with oral fluids only.

Four days later she presented again with increasing vomiting. On physical examination the patient had a normal blood pressure and heart rate, no oedema and no signs of peritoneal irritation. Blood analysis demonstrated hypopotassemia and electrocardiography showed U waves. Potassium was restored by intravenous way and she was started on total parenteral nutrition. Advice from the

gastroenterology department as well as the surgical department was asked several times regarding this case. The gastroenterologist did not want to perform gastroscopy during pregnancy and stated that the gastric band had been deflated at the beginning of pregnancy; gastroscopy was not indicated as it would show an impression of the gastric band without further information. The surgical department advised that removal of the gastric band was not possible in pregnancy.

At 23 weeks intrauterine death of a normally formed fetus was diagnosed and it was decided to terminate the pregnancy. A normally grown female fetus was born, with birth weight 740 g. Autopsy was denied by the parents. Transfer to the gastroenterology ward was conducted after delivery. A CT scan showed slippage of the gastric band over the pylorus resulting in a high digestive obstruction. The arteria gastrica sinistra was also involved and the vasa brevia could not be demonstrated due to necrosis after migration of the gastric band over part of the greater omentum. The gastric band was laparoscopically removed.

DIFFERENTIAL DIAGNOSIS

The differential diagnosis was made between hyperemesis gravidarum, psychological factor and viral gastroenteritis.

TREATMENT

After diagnosis of gastric slippage the gastric band was laparoscopically removed along with the necrotic tissue.

OUTCOME AND FOLLOW-UP

Investigations after mors in utero showed slippage of gastric band over the pylorus resulting in a high digestive obstruction as the cause of hyperemesis. On laparoscopic view it was clear that the arteria gastrica sinistra was also involved in the gastric band slippage with necrosis of the vasa brevia as a result.

The gastric band was removed laparoscopically at the same time.

DISCUSSION

A systematic review on neonatal and maternal outcome after laparoscopically adjustable gastric banding showed several reports of gastric band slippage as a complication during pregnancy.¹ In the study of Bar Zohar the percentage of gastric band slippage was 2.4%, resulting in severe vomiting, electrolyte disturbance and dehydration. The diagnosis in this study was made laparoscopically and it

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was also treated laparoscopically. There were no cases of low birth weight or congenital abnormalities reported.² The percentage of gastric band slippage during pregnancy is also consistent with that of Skull *et al*³ who reported gastric band slippage in 2 of 49 patients and of Carelli *et al*⁴ who showed slippage in 3.2% of pregnancies.

We can conclude that gastric band slippage is not an uncommon complication during pregnancy.

Learning points

- ▶ Do not undertreat pregnant women of fear to harm the baby.
- ▶ Invasive diagnosis should not be postponed in seriously ill pregnant women.
- ▶ Do not limit your differential diagnosis to strictly pregnancy-related disease if your patient is pregnant.

We cannot prove that fetal death could have been avoided if treatment had been performed at an earlier stage, but this possibility should certainly be kept in mind.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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