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LETTER

Maternal Strangulated Diaphragmatic Hernia with Gangrene of the Entire Stomach During Pregnancy: A Case Report and Review of the Recent Literature [Letter]

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Dear editor

I read with great interest the article by Chae et al about maternal diaphragmatic hernia (MDH) during pregnancy.[1] This is a very rare condition, and it is, therefore, of utmost importance to publish a review on the subject as the authors tried.

Unfortunately, there are many drawbacks. If there is "Review of the recent literature" in the title, it is presumed that the review is about the condition in the title. The authors made a review of MDH in general, not about strangulated gangrenous stomachs. Second, the authors state the exacerbation of symptoms of asymptomatic adult Bochdalek hernia, with the reference by Brown et al.[2] That article mentions pregnancy as a precipitating factor for acute MDH but without details or systematic analysis and correlation between MDH and pregnancy. After the description of MDH in pregnant patients, the authors state about poor outcomes "due to obstruction, perforation, ischemia, gangrene, or necrosis of internal organs", referencing the article on the general population, published in 1931.[3] In the Discussion, this is explained using a correct reference by Choi et al.[4]

The case description is insufficient and, in some elements, misleading. First, what is multiple passive collapse? Second, the chest X-ray image should be compared with MRI findings, which showed "the stomach and distal transverse colon had herniated in the left intrathorax". There is a possibility of air or air-fluid levels on chest X-ray, which could lead to the diagnosis of MDH. Also, the term "intrathorax" is never used. Then, the authors write, "The gastroesophageal junction and the duodenal bulb were squeezing and stretching". These are dynamic terms that cannot be seen in static images. The authors then stated, "The estimated fetal weight was 988g". It is a very precise weight measurement by ultrasound, and a technique for such precision measurement should be described.

Then, with "blood pressure of 95/72 mmHg, pulse rate of 160/min, body temperature of 37.2°C" I doubt that "respiratory rate of 20/min" is correct. With hypotension and a pulse rate of 160/min, I presume it was higher.

Mostly, MDH is not an emergency. The description does not lead to an indication of an emergency. The stomach and transverse colon are in the thorax without complete obstruction or indirect signs of ischemia. Clinically, the peritonism was not described. Further, a splenectomy was performed due to severe splenomegaly and necrotic changes but without intraoperative images. Splenic infarcts are treated conservatively. Only complications are treated surgically. There could not be any indication of a splenectomy. Then, the diaphragmatic defect of 10 cm was closed with sutures. It is difficult to close it only with sutures. No intraoperative photo confirms the completed suture line. Further, prophylactic tocolysis with "ritodrine to inhibit preterm labor" was used, although prophylaxis is not indicated in acute abdominal conditions in pregnancy.

Further, the authors write, "a cesarean delivery due to labor pain". Why "labor pain"? It sounds like something was wrong. Labor is accompanied by pain due to uterine contractions. The gestation was 27 weeks. Was the patient on cardiotocography and what about postoperative fetal status? Then, "Two months later, the patient was discharged with

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a pigtail inserted in the left subphrenic space". Why a pigtail catheter? What indication? For such a long time? Then, the sentence "Abdominal computerized tomography (CT) was performed and revealed a 6-cm width of complicated fluid collection on the day after the cesarean delivery". So, the first sentence is about 2 months after Cesarean delivery, and the second sentence is about the first postoperative day. This complete segment should be rewritten.

In the Discussion, there is no formal review, neither narrative nor systematic. Only maternal and fetal mortalities of 69 cases were calculated. The authors reviewed all types of MDH. In the same year (2023), we published a systematic review of MDH in pregnancy of all types,[5] with 158 cases (Chae et al "only" 69). This significant difference results in more robust conclusions. In our article, we made a detailed analysis of risk factors, correlations between many factors, and outcomes. Finally, we constructed a treatment algorithm not found in the literature. Maybe the authors were unaware of our article, reviewed and published at the same time.

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