Pressure Ulcer Due to Herniated Gravid Uterus - A Rare Case Report

Sir,

Incisional hernias are still a common complication following midline laparotomies affecting around one in five patients. Such hernias usually contain omentum and bowel within the sac. If pregnancy occurs in a patient with such a hernia, the increasing intra-abdominal pressure can cause the gravid uterus to be a content of the sac. This is an exceptional occurrence with only around 15 cases reported so far. Though this condition is rare, it can lead to serious conditions such as ulceration, necrosis and bleeding from the skin, incarceration and strangulation of the uterus, spontaneous abortion, preterm labor, intrauterine fetal death, and burst abdomen. The skin compromise in such cases has not been given much importance though this can lead to a burst abdomen[1] and act as a trigger for preterm labor.

The ulceration per se can cause profuse bleeding leading to shock and maternal death. Anticipation, prevention, and management of cutaneous complications are essential for a better outcome in such cases. Herein, we report a case of a 20-year-old primigravida with 26 weeks amenorrhea, referred to our out-patient department from obstetrics, with ulceration of skin over the abdomen. The patient gave a history of appendiceal perforation 6 years back, for which emergency midline laparotomy was done, and following that she developed a paraumbilical hernia 6 months later. She did not take any treatment for the hernia. The size of the hernia increased following pregnancy and as the pregnancy continued, the fetal movements were felt within the swelling. On routine antenatal ultrasound, the gravid uterus was found within the hernial sac with normal growth of the fetus.

From 5 months of gestation, the skin over the swelling darkened and started ulcerating for the past 1 month. The ulcers were associated with serosanguinous discharge and mild pain. On examination, a single 30 × 20 cm ovoid, pendulous, nonreducible swelling with overlying skin showing diffuse hyperpigmentation over ventral aspect was seen arising from the right infraumbilical area [Figure 1a]. A single well-defined, punched out 3 × 3 cm ulcer with adherent white slough and pale granulation tissue was present over the left lateral side of the swelling. Five to six similar ulcers with hemorrhagic crusting were present over the summit of the swelling [Figure 1b]. The surrounding skin appeared necrotic. A midline laparotomy scar was present. Ultrasound showed a single live fetus with appropriate growth for gestational age herniating through a paraumbilical defect on the right side of the abdomen. She was advised complete bed rest with an abdominal binder and antibiotics, emollients, and dressing of the ulcer. The ulcers continued to enlarge in size with one episode of bleeding at 27 weeks. At 28 weeks, she developed preterm labor and due to unfavourability of the uterine position and cervical status, an emergency cesarean section was performed followed by anatomical repair and herniorrhaphy [Figure 2]. The preterm baby was alive with a birth weight of 1.25 kilograms but succumbed to sepsis after a week. The gravid uterine herniation is a rare event with around 15 cases reported in the literature. This complication is mainly associated with incisional hernias due to larger incisions and secondarily infected incisions with prolonged healing[2] and also in umbilical hernias.[3] A case with tubal pregnancy as content in the umbilical hernia sac has been reported. Such herniations can lead to serious consequences. Most cases can be managed by an expectant approach followed by cesarean delivery without complications,[4] whereas in some the growing uterus can undergo strangulation...
and incarceration.[5] In the case of previous cesarean sections, uterine scar dehiscence occurred which was also associated with cutaneous ulceration similar to our case.[2] Adverse pregnancy outcomes such as spontaneous abortion, preterm labor, antepartum hemorrhage, intrauterine death, and rupture of the lower uterine segment have been reported. The increasing pressure of the growing gravid uterus within the hernial sac can cause vascular compression of the vessels supplying the overlying skin as well as the uterus. The cutaneous necrosis and the consequent trophic ulcers are difficult to manage with the continued increase in pressure and pregnancy limiting the aggressive management options. Large ulcers carry serious risks such as premature labor as in the present case, profuse bleeding leading to shock, and sepsis. Prevention of cutaneous necrosis is thus important. Early bed rest and abdominal binding can reduce the pressure effects, thus aiding in prevention. Elective cesarean section with simultaneous hernia repair and excision of redundant skin is the usual management approach. We report this case owing to the rarity of such a scenario. Awareness of potential complications of this rare condition is essential for the proper management of such cases. Better management options of such pressure changes in herniation of gravid uterus are to be sought in order to prevent adverse pregnancy and maternal outcomes.

**Declaration of patient consent**

The authors certify that they have obtained all appropriate patient consent forms. In the form, the legal guardian has given his consent for images and other clinical information to be reported in the journal. The guardian understands that names and initials will not be published and due efforts will be made to conceal identity, but anonymity cannot be guaranteed.

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**Conflicts of interest**

There are no conflicts of interest.

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