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Case Report

Incarcerated incisional hernia containing a gravid uterus with overlying skin necrosis: a case report from a rural secondary hospital, Silchar, Assam, India

Veino Kuveio Dumai*, Sathiafrey Devaraj Anjela, Charlotte Jones

Burrows Memorial Christian Hospital, Alipur, Assam, India

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*Correspondence:

Dr. Veino Kuveio Dumai,

E-mail: kuveio06matt@gmail.com

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ABSTRACT

Incarcerated incisional hernia containing a gravid uterus with overlying skin necrosis is a rare obstetric complication. Delay in diagnosis and management may result in serious maternal and fetal complications, including uterine rupture, intrauterine fetal demise, infection and sepsis. We report the case of a 25 year old gravida 2 para 1 woman with a previous lower-segment caesarean section who presented in labour with an incarcerated incisional hernia and overlying skin necrosis. Emergency lower-segment caesarean section was performed along with excision of the necrotic skin and herniorrhaphy. Both maternal and fetal outcome were favourable following multidisciplinary management. Early diagnosis and timely surgical intervention are essential to prevent severe maternal and fetal morbidity in such cases.

Keywords: Incarcerated incisional hernia, Gravid uterus, Skin necrosis, Caesarean section, Pregnancy

INTRODUCTION

Herniation of gravid uterus through previous incision is a rare occurrence. It may result in serious complications including ruptured uterus, intrauterine fetal demise, incarceration, skin ulceration and sepsis if not diagnosed and treated promptly. We report a case of an incarcerated incisional hernia with overlying skin necrosis in a gravida 2 para 1 woman with a previous lower-segment caesarean section presenting in labour. This case report has been reported in accordance with the SCARE 2023 criteria.¹

CASE REPORT

A 25 year old unbooked gravida 2 para 1 living 1 with a previous lower-segment caesarean section presented at 37 weeks 2 days of gestation came to our emergency department with skin discoloration over the lower abdomen for 2 months and lower abdomen pain for one day. There was no history of leaking or bleeding per vaginum at the time of presentation. She is perceiving fetal

movement well. On general examination, she is moderately pale, slightly tachycardic (heart rate 110 beats/minute), blood pressure was 110/70 mmhg. On local examination, a diffuse partially healed and discoloured ulcerated overlying skin lesion approximately 6×6 cm noted over the lower abdomen (Figure 1). Per abdomen examination reveals uterus term size, irritable and an irreducible swelling with cough impulse through the previous caesarean scar noted. On auscultation fetal heart rate was 156 beats/minute at right spino umbilical line. Per vaginal examination showed cervical dilatation of approximately 2 cm with 50% effacement. Her laboratory investigations showed mild anaemia with haemoglobin 10 gm/dl. All other investigations were within normal limits.

After initial work up, she was prepared for emergency lower caesarean section (LSCS) in view of previous LSCS with incarcerated incisional hernia in labour. Surgeon was called in and abdomen opened by elliptical skin incision. Excision of the overlying necrotic skin tissues done followed by delivery of the baby by lower segment

caesarean section (a live healthy male baby weighing 2.7 kilogram, cried immediately after birth). Uterine closure followed by excision of the sac and herniorrhaphy using loop PDS (Polydioxanone suture) continuous mass closure done in view of thinned out rectus sheet and abdominal musculature. Subcutaneous drain placed which was removed on post operative day 3rd.



Figure 1: Herniated gravid uterus with overlying skin necrosis.

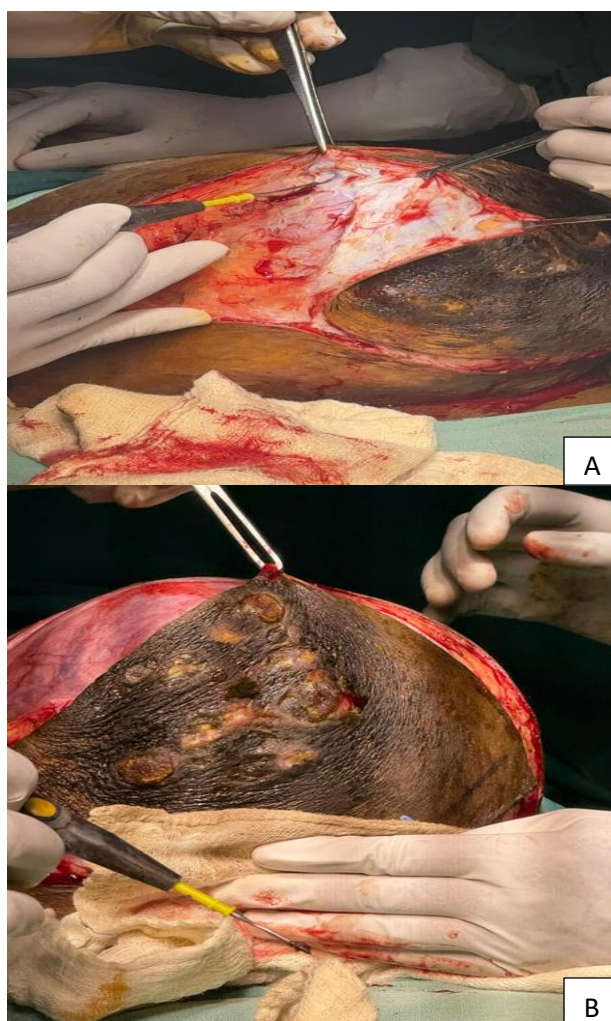


Figure 2 (A and B): Excision of the overlying necrotic tissue prior to extraction of baby.



Figure 3: Healed Scar post-surgery.

On post operative day 5th, patient developed wound infection which was treated with injectable antibiotics and regular dressings. Re-suturing of wound was done on post operative day 9th and patient got discharged in stable condition on post operative day 12th. Follow up of the patient was done after one month and wounds completely healed. Histopathological report of the excised skin lesion showed focally ulcerated keratinized squamous epithelium with underlying fibrosis, along with active and chronic inflammation. No evidence of granuloma or malignancy seen.

DISCUSSION

Herniation of gravid uterus over incisional hernia especially in a previous caesarean scar is a rare occurrence. The risk of uterine rupture, intrauterine fetal demise, skin ulceration, necrosis and infections are significant hence early diagnosis and treatment is the key to prevent such complications. However diagnosis is often delayed in many of the cases as the complications starts to occur usually in late second trimester or third trimester of pregnancy.² Risk factors for incisional hernias include poor surgical techniques, multi-parity, anaemia, wound infections and post operative pneumonia.³⁻⁵ Herniation of gravid uterus may lead to fetal growth restriction, preterm labour, abortion, uterine rupture and intrauterine fetal death.^{4,5} Also increased pressure of the growing uterus may result in the vascular compromise of the overstretched skin leading to ulceration, necrosis and complete evisceration of the gravid uterus in severe cases.^{4,6,7} Management depends on the gestational age and condition of the patient at the time of presentation. In uncomplicated cases diagnosed early, conservative management may be tried with close monitoring. However, a complication such as skin ulceration, uterine dehiscence or incarceration requires multidisciplinary emergency surgical intervention.^{8,9} Recurrence has been reported rarely in literature. Management of ventral hernia repair depends on the stage and condition of the patient. A reducible and unincarcerated hernia detected early may be managed with abdominal binder. Success rate is however variable. In

case of incarcerated or strangulated hernia surgical operative repair is the treatment of choice.¹⁰

CONCLUSION

Herniation of gravid uterus through incisional hernia with overlying skin necrosis and ulceration is a rare but potentially life-threatening condition. Early diagnosis may permit conservative management with close maternal and fetal surveillance. However, patients presenting with incarceration, skin necrosis, uterine dehiscence, or other complications require multidisciplinary surgical intervention. Individualized management involving obstetricians, surgeons, and anaesthetists is essential to optimize maternal and fetal outcome.

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