CASE OF NECROTISING FASCIITIS POST-EMERGENCY CAESAREAN SECTION: A RARE COMPLICATION OF A COMMON PROCEDURE

Kawthar Barkat, Rebecca Li

Obstetrics and Gynaecology Department, The Canberra Hospital, Canberra, ACT, Australia

BACKGROUND

Necrotising fasciitis (NF) is a rapidly progressive and invasive soft tissue infection which manifests as fulminant widespread necrosis of the skin, subcutaneous tissues, and fascia planes¹. It is classified based on causative pathogen: Type 1 polymicrobial (most common), Type 2 Group A strep including MRSA, Type 3 gas gangrene, Other.

Risk factors include immunosuppression, diabetes, obesity, malnutrition, anaemia, renal disease, and substance abuse^{1,2}. Surgery is an independent risk factor¹.

Very few cases of NF in the obstetric population has been reported.

NF has an incidence of 1.8 per 1,000 caesarean section (CS) deliveries³. Prompt diagnosis, antibiotic administration, and surgical debridement are paramount for patient survival. Here, we report a case of NF post-CS that was successfully managed.

(A) Normal Skin

(B) Necrotising Fasciitis

Figure 1 (A) Normal Skin Anatomy and (B) Advanced Necrotising Fasciitis

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CASE REPORT

DELIVERY

- 37-year-old primip with Class 3 Obesity and positive Group B Strep (GBS) vaginal culture
- Induced for postdates
- Labour progressed slowly with prophylactic antibiotics and an epidural
- Developed maternal pyrexia at 9cm
- Prolonged second stage resulted in trial of instrumental delivery in operating theatres
- Emergency CS at full dilation after unsuccessful kiwi cup vacuum due to malposition at occiput transverse and no descent nor rotation.
- Skin closed with staples and sterile negative pressure dressing applied

RE-PRESENTATION

- Re-presented six days post-op with abdominal pain, subjective fevers, wound empyema
- Upon dressing removal, there was extensive skin peeling, epidermolysis, and purulent discharge

- Hb 112g/L, leucocytes $27.9 \times 10^9/L$, CRP 495mg/L.
- Normal sodium, creatinine, glucose levels
- Laboratory Indicator for Risk of NECrotizing fasciitis (LIRNEC) score was 7

MANAGEMENT

- Urgent operative wound debridement
- Necrotic, non-blanching adipose and dermis debrided to bleeding dermis with copious pungent haemopurulent discharge drained
- Wound packed and dressed with new negative pressure dressing
- 60% of her abdomen/panniculus was excised
- Tissue debridement grew *Bacteroides fragilis*
- She spent 33 days as an inpatient, had 8 wound operations until definitive wound closure, and 19 days of intravenous antibiotics
- There was no recurrence at her seven months review and she is awaiting abdominoplasty

CONCLUSION

NF post-CS is a rare entity with significant morbidity and mortality that surges with increasing time to intervention^{4,5}. Multidisciplinary care with early clinical recognition, serial extensive surgical debridements, broad-spectrum antibiotics, and supportive therapies are crucial for preventing systemic deterioration^{2,6}.

(1) Nikolaou et al. (2014) *Case Reports in O&G*, 2014: 505410.

(2) Chhetry et al. (2016) *Journal of Surgical Case Reports*; 7:122.

(3) Goepfert et al. (1997) *Obstetrics and Gynecology*, 89:409–12

(4) Nissman et al. (2011) *Anaesthesiology*, 115:1301.

(5) Bartkeviciene et al. (2017) *Gynaecology and Obstetrics Case Report*; 3:43.

(6) DeMuro et al. (2012) *Journal of Surgical Case Reports*, 9:10