

Reduction of Post Partum Infections Following Instrumental Vaginal Delivery

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Introduction:

Caesarean deliveries account for 38% of births in Australia, these have high rates of infection than standard vaginal deliveries which is associated with significant morbidity or mortality¹. Maternal risk factors include; obesity, smoking, diabetes, steroid use, previous CS, twin pregnancy, twin pregnancy and limited antenatal care.

Aim:

The aim of this case study was to detail a severe case of necrotising wound infection following caesarean delivery and to investigate possible solutions to reduce the rates of wound infection particularly in women with high BMI.

Case:

A 37-year-old female, G2P1 presented for elective repeat caesarean at 39+0. She has a background of T2DM and a BMI of 45. Her previous caesarean section she had a high transverse skin incision to avoid the pannus. This caesarean section used a panniculus retractor and pfannenstiell incision. The entry was difficult due to significant subcutaneous fat ~20cm, otherwise the delivery was uncomplicated. She was given 2g Cephazolin intrao-operatively and completed a 5 day course of oral cephalixin + metronidazole. The patient represented two weeks later with necrotising wound infection. She was treated with antibiotics (Piperacillian-Tazobactam + Lincomycin + Vancomycin) and three wound debridements. The wound was left to heal via secondary intention and had negative pressure wound dressing (VAC) changes for 2 months. She had a protracted recovery period and wound dressing for 3 months.

Discussion:

The case highlights the significant morbidity that can be associated with wound infections. The dose of antibiotics should have been 3g considering a BMI >40^{2,3}. The appropriate PICO dressing and monofilament skin closure was used. There is limited data to support the use of prophylactic oral antibiotics following caesarean section that was implemented in this case, this could be further investigated in high-risk women. Notably the patient's previous caesarean section was performed using a high transverse skin incision. A pilot study did show a reduction in wound infection rates with high transverse skin incision compared to standard low transverse incision, however this was not statistically significant and therefore further research should investigate this. In summary, caution needs to be taken in preventing wound infections in women with BMIs and further research to provide guidelines for clinicians performing caesarean sections in this cohort of women.



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