

## Surgical Site Collections in the Abdominal Wall Post Caesarean Section Delivery

Coulter-Nile S, Ng Stanley  
Royal Hospital for Women, Randwick

### Background

Abdominal wall collections may complicate Caesarean Section delivery (Figure 1). Studies have indicated that 1-2% of caesarean births develop wound complications(1). Wound infections generally occur within 4-7 days after the caesarean section(2). These may be suspected clinically and confirmed by ultrasound scan. Small collections are generally managed conservatively while large collections may require drainage(3). There appears to be little published literature on the incidence of and risk factors for these collections although some studies have indicated that emergency caesarean birth is a risk factor(4).

### Aims

To determine the incidence of and to identify potential risk factors for abdominal wall collections following Caesarean delivery in a tertiary hospital.

### Methods

All abdominal wall collections diagnosed by ultrasound following Caesarean section delivery between 1st February 2020 and 31st January 2022 at a tertiary women's hospital were identified by a computer search of the Department of Medical Imaging database. Data was collected on patient characteristics, Caesarean section type and clinical urgency, indication for scan, collection size and location and subsequent outcome.

### Results

There were 2707 Caesarean sections performed during the study period. Thirty-three patients had ultrasound examinations for suspected abdominal wall collection. Eighteen patients had an identifiable collection giving an incidence of 0.7%. The average collection size was 19ml volume (range 1-97ml volume). Collections were diagnosed on average on the 10th postoperative day. All patients with collections had Pfannenstiel and lower segment uterine incisions. Fifteen of the 18 patients with collections (83%)

had emergency Caesarean Section. No patient required interventional radiological or surgical drainage although one patient had the surgical skin incision partially opened on the postnatal ward to facilitate healing by secondary intention.

### Conclusion

Abdominal wall collections post Caesarean section are relatively uncommon and most do not require intervention. Most collections occur following emergency delivery. Ultrasound may be useful in confirming the presence of a collection and determining the need for drainage.

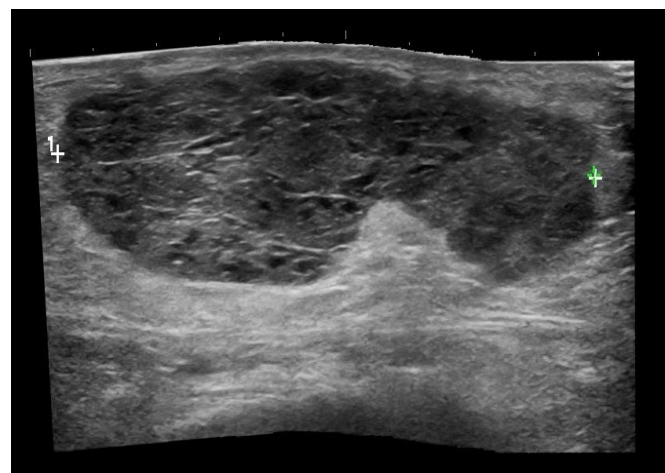


Figure 1. Abdominal wall surgical site collection following caesarean section

### References

- (1) Hammad, I.A., Chauhan, S.P., Magann, E.F. and Abuhamad, A.Z., 2014. Peripartum complications with caesarean delivery: a review of Maternal-Fetal Medicine Units Network publications. *The Journal of Maternal-Fetal & Neonatal Medicine*, 27(5), pp.463-474.
- (2) Berghella, V 2022, Up To Date article 'Caesarean birth: Postoperative issues', accessed 24<sup>th</sup> July 2022, available at: [https://www.uptodate.com.acs.hcn.com.au/contents/caesarean-birth-postoperative-issues?search=post%20cesarean%20wound%20infection&source=search\\_result&selectedTitle=1~150&usage\\_type=default&display\\_rank=1](https://www.uptodate.com.acs.hcn.com.au/contents/caesarean-birth-postoperative-issues?search=post%20cesarean%20wound%20infection&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1)
- (3) Rodgers SK, Kirby CL, Smith RJ, Horrow MM. Imaging after caesarean delivery: acute and chronic complications. *Radiographics*. 2012 Oct;32(6):1693-712. Available at: <https://pubs.rsna.org/doi/10.1148/rg.326125516#7>
- (4) Temming, Lorene A., et al. "Impact of evidence-based interventions on wound complications after caesarean delivery." *American journal of obstetrics and gynecology* 217.4 (2017): 449-e1.