

Vaginal cell salvage - fantasy or reality?

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Objective

Postpartum haemorrhage is an important and increasingly common cause of maternal morbidity and mortality globally; the incidence of women requiring blood transfusions is therefore rising. Allogenic transfusions can be life saving, however they are associated with known risks, and obstetrics is a significant user of this scarce resource. Autogenic blood transfusion, or intraoperative cell salvage, is an accepted technique at caesarean section to collect, wash, and re-transfuse the patient's own blood, thus mitigating both the risks and costs of allogenic transfusion. There is emerging data on the feasibility and practical implementation of cell salvage during vaginal deliveries, adding a potentially useful adjunct to management of postpartum haemorrhage

Results

There is a relative paucity of publications concerning vaginal cell salvage, reflecting both its status as a new technique and the need for further good quality research to provide an evidence base for the publications fitting the criteria for this review included small cohort analyses, case series, 9 practice. The instructional papers on the practical techniques involved, and those including the health economics of auto vs allotransfusion

All the studies analysed were small, involving **28-64** patients. There were no reported cases of amniotic fluid embolism, postpartum sepsis, thromboembolic events or wound infection in any study. Salvaged blood from vaginal delivery was found to be of similar quality to that from caesarean section, with a clinically insignificant bacterial residue. Volumes of salvaged and reinfused blood tended to be small, and may not be equivalent to volumes required in major obstetric haemorrhage, necessitating further allogenic transfusion top up. The practice is straightforward and not overly costly, but does require staff training

Design

Literature review by search of:

PUBMED

MEDLINE

Cochrane
databases

Methods

Search terms 'vaginal cell salvage'; 'autologous transfusion obstetrics'; 'intra-operative cell salvage postpartum haemorrhage'. Only full text publications in English were reviewed. Publications predominantly or only concerning cell salvage during caesarean were excluded

Conclusions

The published literature indicates vaginal cell salvage is safe, practically feasible, and applicable in many settings including resource-poor environments. Further large scale research needs to be commenced to solidify the protocols and provide a robust evidence base to take the practice further



Dedicated to women labouring under fire and our colleagues killed in Gaza in their service: Dr Soma Baroud, Dr Iyad Al-Rantisi, Dr Sirin Al-Attar, Dr Nahed Al-Harazin