



# INTRAOPERATIVE CELL SALVAGE DURING CESAREAN DELIVERY - A case report

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- Postpartum hemorrhage (PPH) remains a leading cause of maternal death worldwide. The use of cell salvage during cesarean delivery (CD) has often been avoided, due to fears of inducing amniotic fluid embolism. We present a case where intraoperative cell salvage was used to save a parturient's life during CD complicated by massive hemorrhage.



## Case report

- A 34 y.o. parturient, G3P2, with a previous two cesarean deliveries (CD), was admitted at 19+6 weeks gestation (EGA) with premature rupture of membranes. She had also had 2 previous episodes of vaginal bleeding. She had been told at 10 weeks EGA that hers was a high-risk pregnancy with suspected placenta accreta in the scar from the previous CD, but she wanted to continue the pregnancy
- CD was in GA and she experienced a massive bleeding (5500ml)
- Cell salvage was used from the beginning (2892ml autologous blood was returned)
- With invasive monitoring (CV and arterial line) transferred to ICU in stable condition
- 2h later: another massive bleeding and return to OR
- GA, hysterectomy, vasoactive medication was required, Cell salvage was used again (730ml autologous blood returned)
- A total of 3622 ml autologous blood, 2780ml allogenic red blood cells, 2405ml of FFP, 870 ml cryoprecipitate and 330 ml of platelets
- 24h on mechanical ventilation, unremarkable recovery, discharged home on POD10



## Case report

**Discussion:** Use of cell salvage in every CD is not cost effective, but in high risk cases it is (1,2).

### Conclusion:

Despite two episodes of massive hemorrhage, the patient did not develop any signs of adverse post-transfusion reaction. Cell salvage has been strongly recommended by recent reviews for parturients with predictably high blood loss, such placenta accreta spectrum disorder, as well as routine CD, to decrease postpartum anemia

### Literature:

1. Lim G, Melnyk V, Facco FL, Waters JH, Smith KJ. Anesthesiology. 2018 Feb;128(2):328-337.
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3. Neef V, Meybohm P, Zacharowski K, Kranke P. Curr Opin Anaesthesiol. 2024 Jun 1;37(3):213-218.
4. Fox, T.P., Timpani, E., Green, A. *et al.* Arch Gynecol Obstet 309, 1935–1941 (2024).