
Abstract:

Obstetric hemorrhage is a leading cause of maternal and perinatal mortality worldwide. Intraoperative blood salvage is common practice in many surgical specialties but its safety in obstetrics is questioned for concerns on the risks of contamination of recovered blood with amniotic fluid (AF) and of maternal-fetal alloimmunization. However, the role of cell salvage as a blood-saving measure in obstetrics is progressively acquiring relevance thanks to the growing body of evidence regarding its quality and safety coming from over 800 documented procedures and more than 400 patients transfused with saved blood. Although the information about the outcomes of the patients treated and the allogeneic blood saving effect are still limited, modern cell savers remove most particulate contaminants and leukoreduction filtering of salvaged blood (SB) before transfusion adds further safety to this technique. Moreover, AF embolism is no longer regarded as an embolic disease and it is suggested that it is a rare anaphylactoid reaction to the fetal antigen. The contamination of the SB by fetal Rh-mismatched red blood cells (RBCs) can be dealt with using RhIG; ABO incompatibility tends to be a minor problem since ABO antigens are not fully developed at birth. Antibodies can be formed against other fetal RBC antigens, but it should also be noted that the risk of alloimmunization of the mother from allogeneic transfusion is probably even greater. Therefore, intraoperative cell salvage in obstetrics should be considered in patients at high risk for hemorrhage or in cases where allogeneic blood transfusion is difficult or
impossible.