Abnormal placentation, including placenta accreta, increta, and percreta, significantly increases morbidity and mortality of the mother and the fetus. It is a challenging disease for the anesthesiologist due to the risk of massive hemorrhage and associated complications. The patient presented is a 33-year-old woman at 30 weeks gestation with complete placenta previa and percreta with bladder involvement. Her peripartum medical management involved a multidisciplinary approach aimed at mitigating the risk of obstetrical hemorrhage, and utilized novel procoagulation agents. The patient had a successful cesarean delivery under general anesthesia with placenta left in situ. Three weeks later she underwent a delayed hysterectomy and partial cystectomy. A multidisciplinary approach and early surgical intervention to the management of placenta percreta in this patient have shown to be successful in preservation of organs invaded by the placenta, and improved outcomes for both the mother and the fetus.