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Optimal time of delivery in placenta accreta spectrum

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Objective

Placenta accreta Spectrum (PAS) is an increasingly common, life-threatening condition. When prenatally diagnosed, the preferred gestational age (GA) for scheduled cesarean delivery is still controversial, with some groups advocating for earlier deliveries (33-34 weeks) in order to avoid massive hemorrhage, and others later GA (35-36 weeks) to decrease prematurity. Our aim was to describe the GA of delivery with a strategy aiming to delivery at ?36 weeks, and discuss potential risks and benefits of a 34 weeks policy.

Methods

Cohort of consecutive patients who were suspected prenatally to have PAS and were managed with the same multidisciplinary strategy between February 2002 and December 2022 at a University Hospital. The management of PAS in our institution included the following: prenatal imaging studies (ultrasound +/- magnetic resonance), preoperative multidisciplinary counseling, scheduled delivery at approximately 36 weeks of GA, and a staged perioperative protocol including bilateral uterine artery catheterization and angiography, cystoscopy and bilateral ureteral stent placement, a midline laparotomy, hysterotomy, delivery of the baby (avoiding the placenta), and elective hysterectomy if the diagnosis of PAS was confirmed during surgery. Conservative surgery with preservation of the uterus was reserved for false positive cases or for cases with a focal or small limited area of accretism.

Results

Among 196 patients with prenatal suspicion of PAS, 167/196 (85%) were managed with hysterectomy and 29/196 (15%) with conservative management or were false positives. The median GA at birth was 36 (IQR 34-36.3) weeks. Delivery was <34 weeks in 35/196 (18%) of patients, at 34-34^{+6} in 27/196 (14%) and > 35 in 134/196 (68%). In 10/196 (5%) cases, acute massive hemorrhage forced emergency delivery, precluding prophylactic uterine artery catheterization: 7/10 < 34 weeks and 3/10 were late referrals. Blood transfusion was needed in 89/196 (45%) patients and a large volume blood transfusion (> 4 U of packed red blood cells) in 29/196 (15%), with no difference between 34-34^{+6} weeks and > 35 weeks (p=0.4). The admission to the Intensive Care Unit was 20% (40/196 patients) with no difference between 34-34^{+6} weeks and > 35 weeks (p=0.8). There were no maternal deaths, and 5 perinatal deaths: 4 <24 weeks GA and 1 patient with and intrauterine death at referral.

Conclusion

Around 70% of patients were safely delivered at 35-36 weeks. Even though with a policy of elective delivery at 34 weeks we could have avoided around 15% of unscheduled deliveries, we did not find differences in maternal severe morbidity. On the other hand, we would have added 1-2 weeks of prematurity to the majority of the patients.