

EP09.17 Fetoscopic treatment of twin-to-twin transfusion syndrome associated with pre-operative rupture of the membrana

Kavita Narang MD¹; Rodrigo Ruano MD PhD²

1. Department of Obstetrics and Gynecology, Mayo Clinic College of Medicine, Rochester, MN, United States.

2. Maternal Fetal Medicine, Spectrum Health, Grand Rapids, MI, United States.

Background:

Twin to twin transfusion syndrome (TTTS) can be a severe complication unique to monochorionic twins. The standard of care for management of TTTS is fetoscopic laser ablation (FLA) of placental anastomoses, which is performed in the setting of intact amniotic membranes. However, preterm rupture of the membranes (PPROM) can happen before the indication of FLA, complicating even more the situation.

Case report

We report an unique situation that a successful FLA with amniopatch was performed right after PPRM was diagnosed. A 23-week gestation monochorionic-diamniotic twin pregnant patient presented with stage II TTTS was admitted for urgent FLA when she quickly progressed to PPRM. Since the severe polyhydramnios/anhydramnios was still observed, we established an emergent multidisciplinary meeting and consulted the hospital Fetal Ethical Boards. After appropriate consultation and ethical board approval, we performed an FLA procedure for TTTS with amniopatch for management of PPRM on the same day. On post-operative day 1, no more leakage of fluid was observed. The patient had an uncomplicated course, with completely resolution of the TTTS, and she delivered at 34 weeks by cesarean section: two healthy twins. The twins are now 5 years old with complete normal neurological development.

Conclusion

In conclusion, we demonstrate FLA with amniopatch is a feasible option in specific cases of TTTS with pre-operative PPRM.

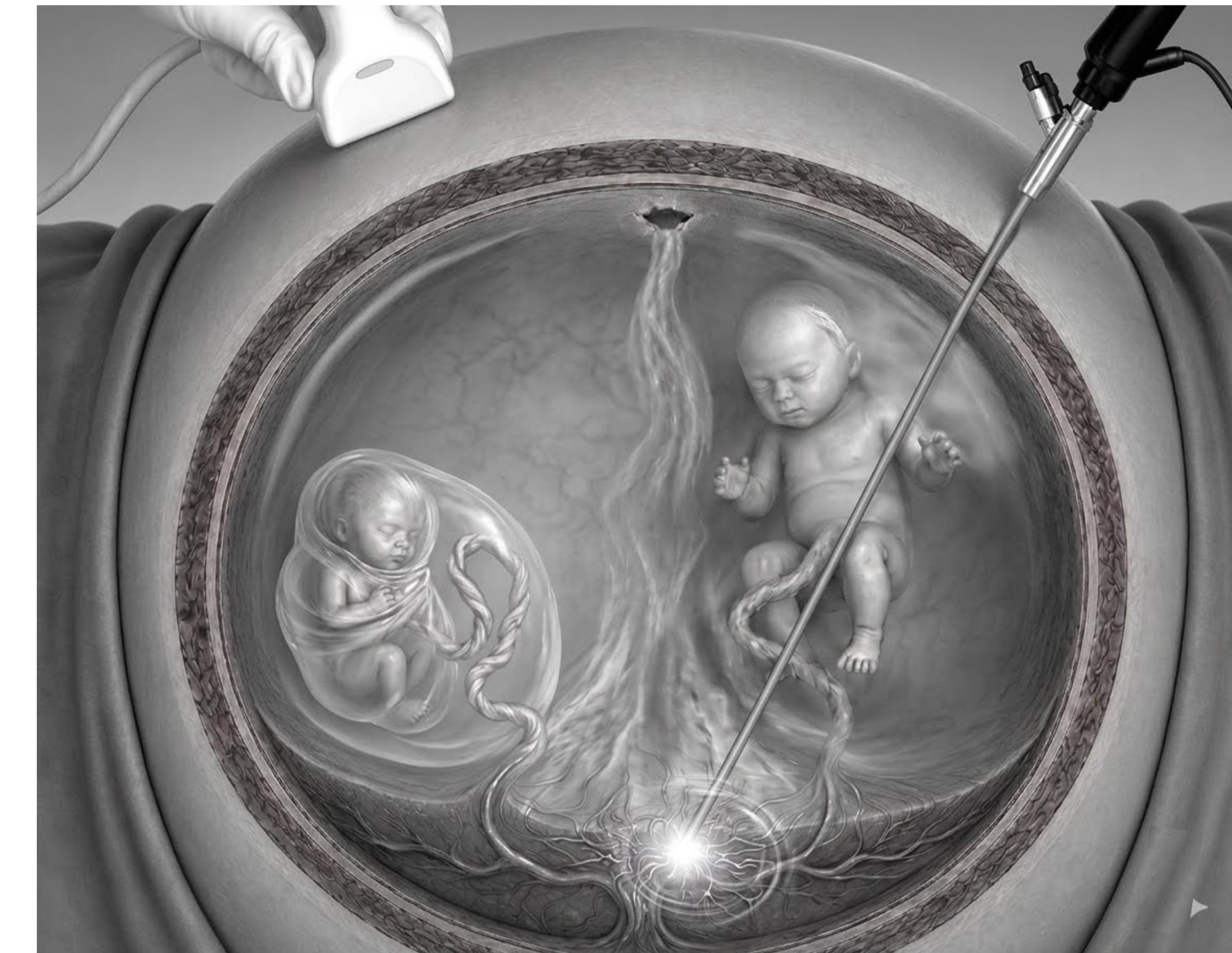


Figure 1. Illustration of FLA after amniotic fissure.

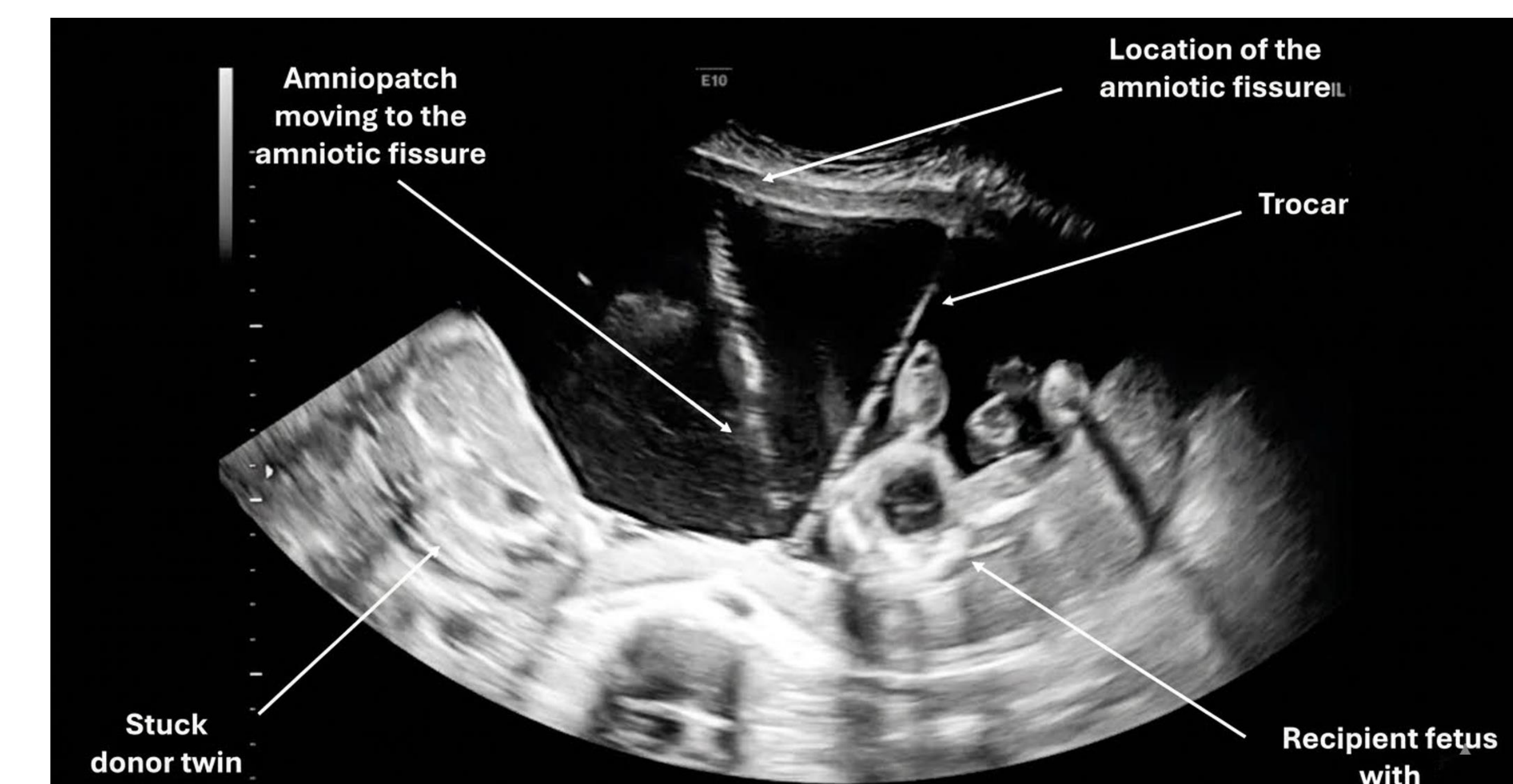


Figure 2. Ultrasound image showing the amniopatch moving in the direction of the amniotic fissure.