

EP10.05

The effect of asymptomatic bacteriuria on preterm birth among monochorionic multiple pregnancies following endoscopic surgery

Ohad Houri, Kinneret Tenenbaum Gavish, Bar Narkis, Ofir Sternfeld, Yael Herring, Eran Hadar, David Danon, Anna Idelson, Nir-Ram Duvdevani, Yuval Gielchinsky

The Helen Schneider Women's Hospital, Rabin Medical Center, Beilinson Campus, Petach Tikva, Israel
Gray School of Medicine, Tel Aviv University, Tel Aviv, Israel

Background

Endoscopic surgery has become the standard approach for managing complications in monochorionic twin pregnancies. However, the risk of preterm prelabor rupture of membranes (PPROM) and preterm birth (PTB) following these interventions remains significant. Asymptomatic bacteriuria (ASB) has been suggested as a contributing factor in the pathogenesis of PTB.

Aim

To investigate whether women with ASB prior to fetal intervention have an increased risk of PTB.

Methods

Retrospective analysis of 107 patients who underwent fetoscopic laser coagulation of the inter-twin communicating placental vessels or ultrasound guided bipolar cord coagulation at a single center from September 2018 to January 2023. All cultures (Urine,Cervix,Placental), including preoperative (beginning the first trimester), operative, postoperative, delivery, and postpartum, were reviewed. We evaluated bacterial growth, antibiotic resistance (AR), and the association of positive cultures with PTB or PPRM.

Results

13 women (16.9%) had positive urine cultures prior to fetal intervention, which was identified as a significant risk factor for PPRM < 34 GW (OR 5.07, 95% CI, 1.05-24.4). Following intervention, 56 women (52.3%) had positive urine or placental cultures, with 50% with AR. AR positive cultures were more common in women delivering before 34 GW (30% vs. 5.6%, p=0.03).

Conclusion

Positive urine culture before invasive fetal therapy in monochorionic twins increases PTB risk. Therefore, we suggest routine pre-intervention screening in elective procedures. Further randomized controlled trials and validation are needed.