Interstitial Laser for Selective Fetal Reduction in type II sFGR in Monochorionic Twin Pregnancy

Dadhwal Vatsla (IN) [1], Sharma Aparna K (IN) [2], Deka Dipika (IN) [3]

Context: sFGR is an important complication of monochorionic pregnancy, and is defined as estimated FW <10th centile of one fetus or intertwin EFW discordance >25%. There is significant risk of IUD or neurological adverse outcome for both twins. Type II is characterized by persistent absent/reversed diastolic flow in umbilical artery.

In a series of 27 cases, managed expectantly, IUD occurred in 29.6% of IUGR and 22.2% of larger twin. Neurological damage occurred in 14.8% of smaller twin and mean gestation at delivery was 28 weeks (Ishii, 2009).

Objective: to present a case of selective fetal reduction in type II sFGR in monochorionic (MC) twin pregnancy

Method

Case: A G2P1 was referred at 21 weeks of gestation with MC twins with type II sFGR and absent liquor in one twin and normal growth and liquor in second twin, there were no structural malformations.

Intervention: After counseling, the growth restricted fetus was reduced using 400mm Diode laser delivered by 18g spinal needle under USG guidance, targeting intraabdominal fetal umbilical vascular confluence. Laser was fired in short (6-10sec) 20-40W bursts till blood flow ceased.

Result: Patient continued pregnancy to term without complications and delivered a 2.4kg healthy baby at 39 weeks. Baby is doing well on follow up at 10 months.

Conclusions: Interstitial laser is a simple, minimally invasive method of vascular occlusion in discordant monochorionic pregnancy, suitable for application in first half of pregnancy.

[1] All India Institute of Medical Sciences, [2] All India Institute of Medical Sciences, [3] All India Institute of Medical Sciences