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SUCCESSFUL OUTCOME IN PREGNANCY WITH TWIN-TO-TWIN TRANSFUSION SYNDROME FOLLOWING INTERVENTION A CASE REPORT

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Abstract : Twin-to-twin transfusion syndrome (TTTS) can occur in approximately 15 of monochorionic diamniotic (MCDA) pregnancies. This is a case report of TTTS managed successfully with fetoscopic laser photocoagulation.

Keyword : Twin- to twin transfusion syndrome, laser photocoagulation 28 year old female G4P2L1A1, post cesarean, with H/O 5MA, LMP-NK, USG EDD-24.10.13, TWIN gestation, came with USG report (2.6.13) as ?twin twin transfusion syndrome on 5.6.13 with POG 20- 21 weeks. Menstrual history- 3/30-60, irregular cycles. Marital history- married since 7 years, Non consanguineous marriage.

Obstetric history

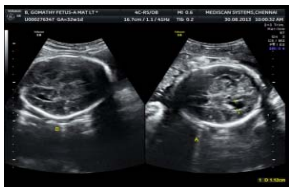
I-FTLSCS, Boy, 5 1/2 years, A&H, Indication - PROM, at KMCH
II-IUD at 8MA, girl, KMCH
III-Spontaneous abortion at 6MA, KMCH
IV-PP, B&I at Nerkundram HealthPost

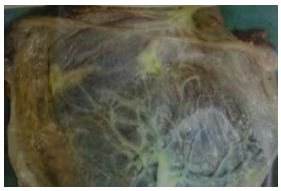
USG FINDINGS:

Obstetric ultrasound examination revealed a monochroionic diamniotic twin pregnancy of 21 weeks with twin–twin transfusion syndrome (TTTS) showing the following findings: 1. Recipient fetus
showing dilated bladder and polyhydramnios in the recipient sac with symmetric growth of 21 weeks appropriate for estimated age. 2. Donor fetus showing severe intrauterine growth restriction (<3rd percentile), severe oligohydramnios and reversed end diastolic flow in the umbilical artery on Doppler ultrasound.

COURSE OF EVENTS:

TTTS stage III (Quintero staging) was diagnosed. Since it is a case of monochorionic diamniotic twins with TTTS, foetal physician opinion obtained. After proper counseling of the patient, laser foetoscopic coagulation done at 22 weeks free of cost. After one week, there was improvement in the blood supply for the donor twin. The amniotic fluid increased gradually in the Donor sac and polyhydramnios in the recipient sac gradually decreased. Patient used to get admitted for pain abdomen and evaluated. Serial ultrasound scans were done every week till the pregnancy reached 34 weeks. Patient admitted for fourth time with c/o draining p/v at 32 weeks of gestation. Foetal MRI brain (done in KMCH) – twin A has ventriculomegaly.





Antenatal corticosteroids given. Emergency repeat ceasarean section done at 34 weeks of gestation as patient went into labour. Twin A-alive preterm boy,1.75 kg, APGAR-1'7/10 5'8/10, Twin B-alive preterm boy, 1.8 kg, APGAR-1'7/10 5'8/10. Placenta- monochorionic diamniotic. Both babies admitted in neonatal intensive care unit. Both mother and babies discharged in good condition on 12th post operative day. Both babies are regularly coming for follow up at paediatric OPD, KMCH. Both babies are grown well.

DISCUSSION:

Diagnosis of TTTS requires two criteria:
1.Presence of MCDA pregnancy
2.Presence of oligohydramnios in one sac (maximum vertical pocket<2 cm) and polyhydramnios in other sac (maximum vertical pocket>8 cm).
TTTS can be predicted at 11-14 weeks scan by three markers.
1. A discrepancy in CRL between the two foetuses of >= 10 mm
2. Inter-twin difference in NT of >= 0.6 mm.3. Abnormal blood

flow in the ductus venosus of one of the foetuses.

QUINTERO STAGING: To predict the prognosis of TTTS

Stage I : Oligo/polyhydramnios

Stage II : Bladder not visualised in donor

Stage III : Critically abnormal Doppler in donor

Stage IV : Hydropic changes in recipient – ascites, pericardial effusion

Stage V : Demise of one twin

MANAGEMENT:

Management of TTTS is an obstetric challenge. The prognosis for advanced TTTS (stage III/IV) is poor with perinatal loss of 70-100% particularly when it manifests before 26 weeks. Currently laser ablation, which entails the photocoagulation of anastamotic vessels, is the treatment of choice. It is the best available treatment for stages II, III, IV TTTS in continuing pregnancy at < 26 weeks.

CONCLUSION:

This is a standing example of a successful foetal intervention which had resulted in two healthy babies. This is also a sterling example of public - private partnership which had resulted in the survival of both babies.

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