

Twin-Twin Transfusion Syndrome

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With the decline in perinatal morbidity and mortality from other causes, multiple pregnancy now warrants special attention from obstetricians. Its incidence is increasing by 50 % in developed countries over the last 15 years. Twin-twin transfusion syndrome (TTTS) is one of the most unique complications and responsible for 15 - 20 % of perinatal mortality in multiple pregnancy. The pathology of TTTS involves chronic net shunting of blood from the donor to the recipient. The donor becomes growth restricted, oliguric and develops anhydramnios (stuck twin). The recipient becomes polyuric with polyhydramnios and can go on to develop cardiac failure and hydrops.

Untreated, perinatal loss rates in the mid-trimester approach 80 -100 %. The treatments included prostaglandin synthase inhibitors (indomethacin, sulindac), serial amnioreduction, septostomy, fetoscopic laser ablation of communicating vessels and selective fetocide. Of all the management options, it appears that serial amnioreduction is an effective and minimally invasive therapy that is probably the treatment of choice after 20 weeks' gestation. For patients found to have TTTS before 20 weeks' gestation or at higher stage, the prognosis is extremely poor even with serial amnioreduction. Consideration should be given to fetoscopic laser ablation of communicating vessels or cord clamping for selective fetocide.