Survival outcomes of twin-twin transfusion syndrome in stage I: A systematic review of literature

A. Cristina Rossi

Department of Gynecology, Obstetrics and Neonatology, University of Bari, Italy

The treatment of the mildest form of twin transfusion syndrome (TTTS), Quintero Stage I, is actually under debate. Outcomes of Stage I-TTTS treated by amnioreduction (AR), conservative management (CM) or laser therapy (LT) are reviewed. Inclusion criteria: TTTS diagnosed according to standard criteria, Stage I defined by sonographic visualization of donors’ bladder. Articles not aimed to analyse survival rates of Stage I were excluded. The overall survival rate (OSR) and survivors for twin set were abstracted from each article. PRISMA guidelines were followed. Eight articles reported outcomes of Stage I in 269 twin sets. First choice treatment was AR in 40 (15%), CM in 59 (22%), LT in 170 (63%). In the AR group, OSR was 66/80_82%. For twin set, 0, 1 or 2 survivors were 2/40_5%, 13/40_32% and 25/40_62%, respectively. At least 1 survival rate was 42/80_52%. In the CM group, OSR was 102/118_86%. For twin set, 0, 1 and 2 survivors were 3/59_5%, 10//59_17% and 46/59_78%, respectively. At least 1 survival rate was 56/59_95%. Stage I progressed to advanced stages in 13/40_32% and 6/39_15% cases treated with AR and CM respectively. In the LT group, OSR was 291/340_85%. For twin set, 0,1 and 2 survivors were 12/170_7%, 25/170_15% and 133/170_78%, respectively. At least 1 survivor rate was 158/170_93%. Only one article compared outcomes following LT vs CM and did not find differences in survival rates. Thus, a meta-analysis was not performed. Although comparative studies are needed, literature shows that AR is associated with low survival rates and LT does not appear superior to CM.

Biography

A. Cristina Rossi was born on 6 Sept 1974 and received her degree in Medicine and Residency in Obstetrics and Gynecology at University of Bari (Bari, Italy), where she is actually Research Fellow. She has published about 30 papers, mainly in the field of Fetal and Maternal Medicine. She was presenting Author to international meetings of the Society of Maternal and Fetal Medicine.