Diagnosis, Treatment and Outcome in Complicated Monochorionic Twins

Message from the Guest Editors

Twin gestations occur in 2% of all pregnancies. Two-thirds of these twin gestations are dizygotic and one-third are monozygotic, thus leading to identical twins. Dizygotic twin gestations are always dichorionic and have two separate placentas. In contrast, the majority of monozygotic twin gestations are monochorionic in which both twins share their placenta. Monochorionic twin placentas are characterized by the invariable presence of vascular anastomoses connecting the two fetal circulations. Unbalanced blood transfusion through the vascular anastomoses can lead to severe fetal complications such as twin-twin transfusion syndrome (TTS), twin anemia-polycythemia sequence (TAPS) of twin reversed arterial perfusion (TRAP). In case of unequal placental sharing, selective fetal growth restriction (sFGR) can occur. Accurate and timely detection of these potentially devastating complications is of utmost importance, as well as optimal antenatal and postnatal management.