20th World Congress in Fetal Medicine

Management and outcomes of severe selective fetal growth restriction in monochorionic twins: insights from a multicenter retrospective cohort study (the ALIGN-study)

Noll ATR1,2,3, Nulens K4, van Hoogstraten A1, van Mieghem T4, Zuazagoitia P5, Herling L3, Shinar S4, Tiblad E3, Slaghekke F1, Haak M1, Lopriore E1, Bennasar M5, Lewi L2, Verweij EJT1

Universitaire Ziekenhuizen Leuven, Belgium, Leuven, Belgium

Objective

Selective fetal growth restriction (sFGR), defined as a growth discordance of 20% or more, complicates up to 20% of monochorionic diamniotic (MCDA) twin pregnancies. sFGR can be divided into three types based on the smaller twin's umbilical artery Doppler pattern. The best management of type 2-3 sFGR (severe sFGR) remains unclear. In this multicenter retrospective cohort study, we evaluate the management and outcomes of severe sFGR cases.

Methods

We included MCDA twin pregnancies with type 2 or type 3 sFGR followed in five fetal medicine centers between 2016 and 2022. Pregnancies with lethal fetal anomalies, higher-order multiple gestations, and those with twin-twin transfusion syndrome or twin anemia polycythemia sequence present at the time of diagnosis were excluded. The classification of type 2 or 3 was based on the initial presentation of abnormal Doppler flows. We collected data on fetal and neonatal outcomes as well as management strategies. Outcomes and management strategies were compared between type 2 and 3 and between the different centers.

Results

So far, we collected data on 340 pregnancies (680 fetuses) with severe sFGR, of which 98 (29%) pregnancies were type 2 and 242 (71%) type 3. Table 1, 2, and 3 show the preliminary results. Further analysis will compare the different management strategies and evaluate ultrasound predictors of imminent demise.

Conclusion

Preliminary results show important similarities and differences in the outcomes of type 2-3 and the management of sFGR type 2-3 the five fetal therapy centers. Further analysis will compare the effectiveness of different management strategies and evaluate ultrasound predictors of imminent demise.