A case of resuscitation from cardiac failure by intrauterine transfusion after single fetal death in monochorionic twin pregnancy
Shigenori Iwagaki, Yuichiro Takahashi, Fetal maternal medicine, Gifu prefecture general medical center

Introduction

• In case of single fetal death in monochorionic twin pregnancy, it is suspected that the surviving fetus becomes hypovolemic. However, there is no report of any evidence of fetal circulatory insufficiency in such cases. This is the first report that describes transient circulatory insufficiency and decreased cardiac function of the surviving fetus.

Case

• The smaller fetus’s death (FD) was confirmed at 24 weeks and 5 days GA in the case of selective IUGR type3. Although there were no abnormal Doppler findings in the co-twin fetal pleural effusion and ascites were detected.

Fetal hemoglobin level was confirmed as 9.8 g/dl by umbilical cord centesis. Although fetal anemia was not severe, IUT was performed because fetal circulatory insufficiency was suspected.

The change in each parameter is shown in Figures. Black arrow indicates the detection of single FD. LVFS and RVFS showed the minimum value on confirmation of a single FD, which recovered promptly after IUT and then, maintained normal range. The LV and RV MPI showed the maximum value on the confirmation of single FD, which decreased promptly after IUT and then, maintained the normal range.

A normal male baby was born at 36 weeks and 4 days GA by natural vaginal birth after spontaneous labor onset. The birth weight was 2360 g. No abnormal findings were observed in the MRI image at discharge (day 5). No abnormal neurological and cardiac findings were observed at 12 months after birth.

Conclusion

If fetal circulatory insufficiency is suspected in the case of single FD of MC twins, IUT is a possible choice even if the MCA PSV is within the normal range.