P09.05 Abnormal cord insertion at first trimester can predict the adverse outcome in monochorionic twin pregnancy
Mizue Saito, Mayumi Tokunaka, Hiroko Takita, Minako Goto, Maya Koyano, Bunbu Sekiya, Tatsuya Arakaki, Shoko Hamada, Tomohiro Oba, Ryu Matsuoka, Akihiko Sekizawa
Department of Obstetrics and Gynecology, Showa University School of Medicine, Tokyo, Japan

Objective
To assess the influence of abnormal cord insertion (CI) detected by first trimester ultrasonography on the development of twin-twin-transfusion syndrome (TTTS) in monochorionic diamniotic (MCDA) twins.

Methods
◆ Research period was between January 2011 and January 2017
◆ The CI sites were diagnosed at the first screening between 11+0 and 13+6 weeks’ gestation.
◆ All twin pairs were assigned to the abnormal CI group (twin pair with velamentous cord insertion (VCI) and/or marginal cord insertion (MCI) in one or both twins) or the normal CI group (twin pair with both normal CI).
◆ Outcome data were collected after birth and analyzed retrospectively.

Outcome
A total of 109 MCDA twin pairs were examined; 15 cases were classified into the abnormal CI group and 94 cases into the normal CI group.
The incidence of TTTS was significantly higher in the abnormal than in the normal CI group (26.7% vs 7.5%, p=0.04). In patients who developed TTTS, all donors had VCI.

Conclusion
Ultrasound evaluation of abnormal CI at 11+0 to 13+6 weeks’ gestation in MCDA twins is valuable in the assessment of the risk for TTTS.