

EP12.18 Prognostic factors for adverse outcomes in selective FGR type II/III without oligohydramnios

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Objective

To clarify the prognosis and prognostic factors associated with selective FGR (sFGR) type II/III without oligohydramnios in smaller twin under expectant management, a group that is **not currently eligible** for for fetoscopic laser photocoagulation (FLP) under existing Japanese clinical practice guidelines.

Methods

Multicenter retrospective cohort study

Inclusion: sFGR type II/III without oligohydramnios diagnosed before 26 weeks of gestation

Primary outcome: composite adverse perinatal events including fetal death, neonatal death, or delivery before 28 weeks of gestation due to non-reassuring fetal status (NRFS)

Statiscal analysis: Adjusted odds ratios (aORs) were calculated for ultrasound findings between 16 and 25 weeks, and factors with a positive likelihood ratio ≥10 for predicting adverse outcomes were identified.

Results

Table 1. Pregnancy course and adverse perinatal events

	Smaller twin (N=112)	Larger twin (N=112)
Composite adverse perinatal events	25 (22%)	17 (15%)
Fetal death	19	7
Neonatal death	1	3
Delivery before 28 weeks due to NRFS	5	7

Table 3. Predictive accuracy of prenatal ultrasound findings for adverse perinatal events in smaller twins

	N	Sensitivity	Specificity	PPV	NPV	PLR	NLR
Reversed DV a wave or MCAPSV >1.5MoM or Discordant rate ≥40%+Reversed UAEDV	18	56%	95%	78%	88%	11.2	0.46

PPV, positive predictive value; NPV, negative predictive value; PLR, positive likelihood ratio; NLR, negative likelihood ratio

Conclusion

In sFGR type II/III without oligohydramnios, 22% of smaller twins developed adverse events under expectant management, and fetal demise of smaller twins triggered adverse outcomes in the normally grown co-twins. Cases with abnormal fetal Doppler findings or marked intertwin growth discordance had a higher frequency of adverse events and may warrant consideration for expanding FLP indications.

Table 2. Association between prenatal ultrasound findings and adverse perinatal events

	aOR	P
Smaller twin		
Discordant rate ≥40%	9.2	0.0097
Reversed UAEDV	6.0	0.017
Reversed DV a wave	21.2	0.021
MCAPSV >1.5MoM	9.9	0.038
Larger twin		
Discordant rate ≥40%	2.7	0.14
Fetal demise of smaller twin	13.3	<0.0001