

Histologic chorioamnionitis after multifetal pregnancy reduction : is it a risk factor for preterm delivery?

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Objective

The purpose of our study is to evaluate the risk and benefit of MFPR in our institution and to investigate whether histologic chorioamnionitis after MFPR makes differences in pregnancy outcomes.

Methods

Study population: One hundred and one MFPR twins, 367 nonreduced twins and 10 nonreduced triplets from 1994 to 2003 were included in this study and analyzed according to year (1994-1998 and 1999-2003), histologic chorioamnionitis and obstetric and neonatal outcomes.

MFPR was performed between 8 and 10 weeks under transvaginal ultrasound guidance.

Results

The miscarriage rate for MFPR twin group was 16.8%, compared with 8.2% for nonreduced twin group ($p < .05$). Histologic chorioamnionitis was more frequent in MFPR twin group compared with nonreduced twin group (28.0% vs 15.8%; $p < .05$). The mean gestational age at delivery (GAD) for MFPR twin group (31.7 ± 7.9 weeks) was significantly shorter than for nonreduced twin group (34.1 ± 5.2 weeks). The mean GAD was not significantly different between MFPR twin group and nonreduced triplet group (31.7 ± 7.9 weeks vs 31.9 ± 4.7 weeks). During the latter half of the study period (1999-2003), the incidence of histologic chorioamnionitis was similar between MFPR twin group and nonreduced twin group (18.8% vs 14.7%), therefore the mean GAD was not significantly different between MFPR twin group and nonreduced twin group (33.8 ± 5.8 weeks vs 34.5 ± 4.2 weeks), but there was no improvement in the mean GAD in MFPR twin group as compared with nonreduced triplet group (33.8 ± 5.8 weeks vs 33.1 ± 4.0 weeks). Moreover, the incidence of histologic chorioamnionitis after MFPR was lower during the latter five years than during the former five years in our institution (18.8% vs 44.4%; $p < .05$), but the significant improvement did not ensue in the mean GAD in MFPR twin group during latter five years (1999-2003) as compared with during the former five years (1994-1998) (33.8 ± 5.8 weeks vs 32.6 ± 6.1 weeks).

Conclusions

The histologic chorioamnionitis after MFPR may be a risk factor for preterm delivery. With increasing experience, there has been a considerable decrease in the development of histologic chorioamnionitis after MFPR, but there was no improvement of the mean GAD in MFPR twin group, attesting to the question about the effect of MFPR. Further investigation on the effect of MFPR should be required.