Alloimmune thrombocytopenia: does a good response to IVIG in one pregnancy predict success in the following one?

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Objective

To determine whether a previous good response to IVIG treatment in pregnant women with neonatal alloimmune thrombocytopenia (NAIT) predicts a similar response in the next affected pregnancy.

Methods

Fifty-seven pregnancies in 36 women with NAIT were managed noninvasively by weekly administration of IVIG at a dosage of 1 gr/kg starting at 22-24 weeks of gestation without monitoring platelet counts. Thirteen women had more than one pregnancy treated by IVIG, resulting in 34 consecutive treated pregnancies. Inadequate response was defined as platelet count at birth <50, 000 /µL.

Results

The mean platelet count at birth following IVIG treatment was 125, 000/µL. Twelve (21%) of the treated fetuses had a platelet count of <50, 000/µL at birth. None of the pregnancies in our cohort was complicated by intra-cranial hemorrhage. Six women, each with 2 pregnancies treated by IVIG, and 1 woman with 5 treated pregnancies had a good response with a platelet count at birth > 50, 000/µL in all their treated pregnancies. The other 6 women with 17 consecutive treated pregnancies had mixed results with respect to IVIG treatment responsiveness. In 5 (14. 7%) pregnancies treatment with IVIG resulted in an inadequate response following a good response in the previous pregnancy. In one case, the inadequate response appeared after previous good response in two consecutive pregnancies, and in one case it occurred following good response in 3 consecutive pregnancies.

Conclusion

A good response to IVIG in one pregnancy with NAIT does not guarantee effectiveness of treatment in the next affected pregnancy. The possibility of developing intolerance to IVIG treatment following recurrent pregnancies, which were successfully treated by IVIG, should be considered.