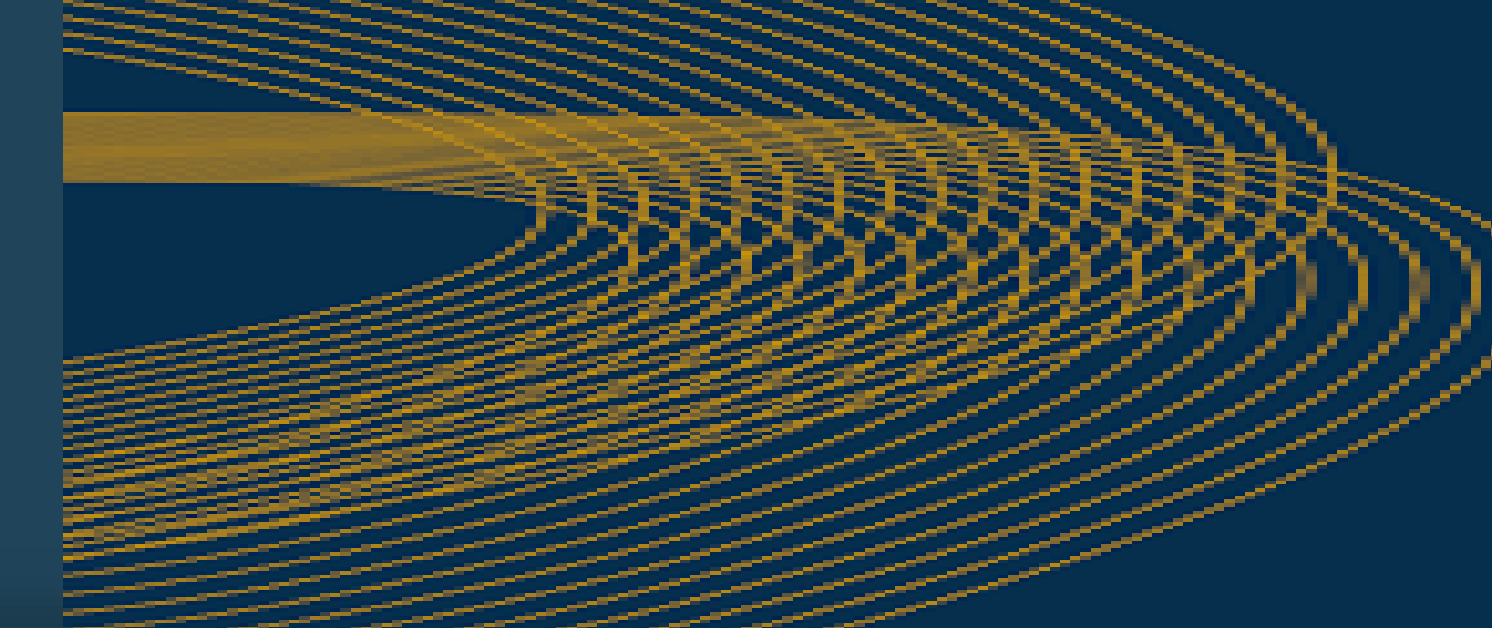


Successful prevention of Fetal Neonatal Alloimmune Thrombocytopenia using antenatal intravenous immunoglobulin.

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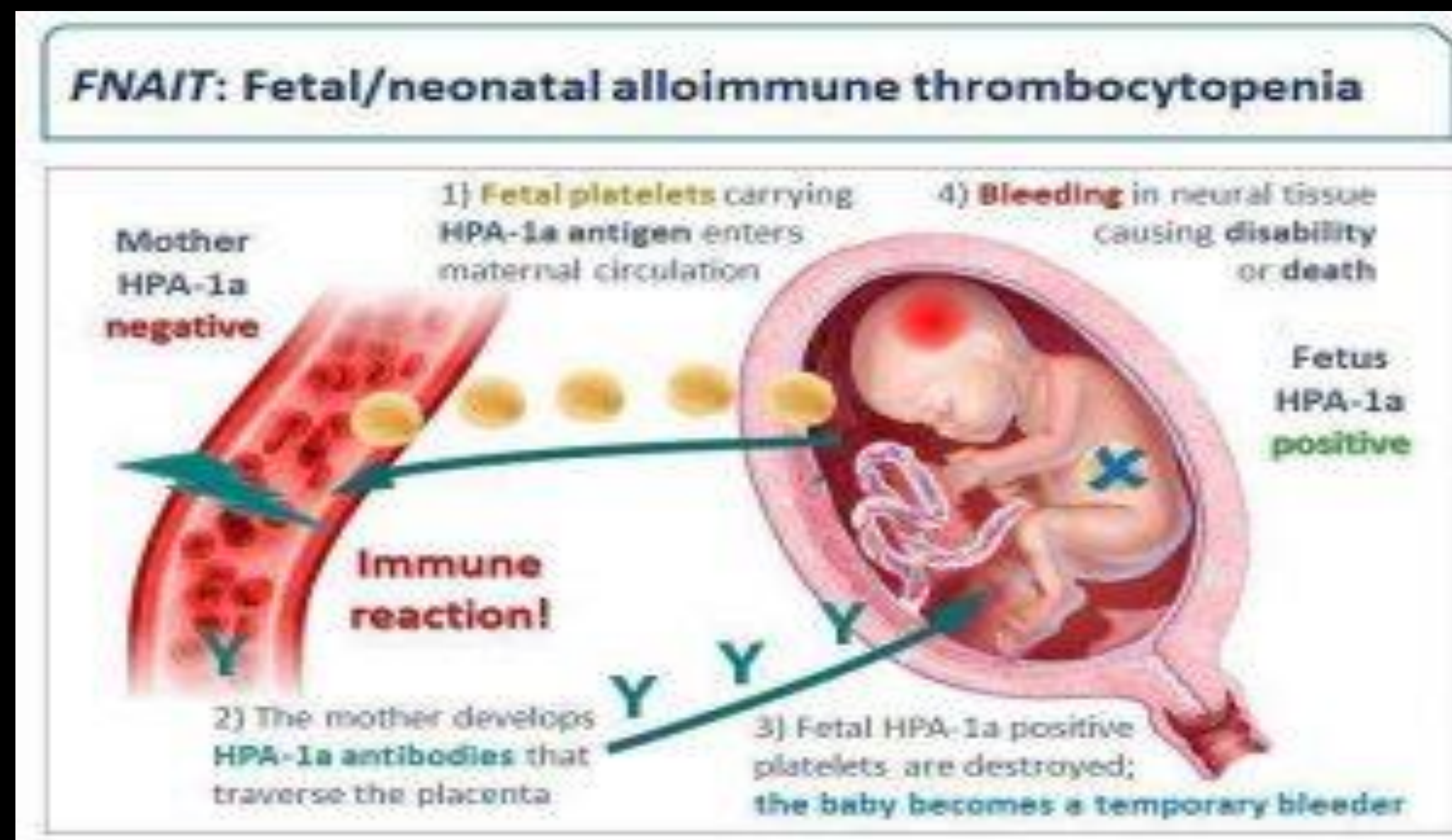
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CONGRESS

INRODUCTION

- FNAIT is a rare (1: 10,000 pregnancies) but serious condition associated with significant fetal and neonatal morbidity and mortality
- The condition is defined by the presence of maternal alloantibody directed against antigens present on the fetal / neonatal platelets.
- These antigens are inherited from the father {absent on the maternal platelets}
- The antibodies created cross the placenta and attack the fetal platelets and results in thrombocytopenia



OBJECTIVES :

- The objectives of this case report is to highlight the efficacy and positive neonatal outcome after the use of intravenous immunoglobulin (IVIg) in a patient with history of previously severely affected baby .

CASE HISTORY

- A 32-year-old healthy woman had VD of her third child the newborn had routine blood testing because the mother is RH negative, which revealed an extremely low platelet count of 19,000.)
- The neonate eventually showed signs of spontaneous bleeding, necessitating tertiary referral and platelet transfusion and made a good recovery

DIAGNOSIS

- The mother is healthy ,never had blood or platelets transfusion, her platelets were 493 ,HB:12.7,and normal WBC.
- FNAIT screen was done ,maternal anti HAP-1a detected ,and both the partner and the baby were HPA-1 were positive
- Genotyping, confirmed the presence (HLA)-DRB3 0101 in women.

MANAGEMENT DURING THIS PREGNANCY

- Patient was Counselling that the outcome for future pregnancies more likely will be the same or less severe and the risk of ICH with the use of IVIG {although not definite} but would usually be less than 5%.
- She became pregnant with twins (DCDA), during pregnancy her care was combined between MRH & NMH.
- A weekly infusion of IVIG was started from 18 weeks , and an elective caesarean section delivery was planned at 37.
- Both babies showed normal platelets count at time of delivery and in subsequent testing (both had platelets more than 150) and did not need any further intervention.

DISCUSSION

- The most commonly detected antibodies in Caucasians are (HPA)-1a (80%) and HPA-5b (10–15%), which can allow prediction of at-risk fetuses.
- FNAIT is severe when platelets are lower than 25000. An ICH affects 20% of these women, with 80% of cases occurring during pregnancy (34 %before 30 weeks of pregnancy).
- The associated risks to the fetus from weekly platelet IUTs has led to the widespread introduction of non-invasive IVI g therapy.
- Following one pregnancy affected by FNAIT (low platelets but no ICH), maternal IVIg at 1 g/kg/week starting at 20 weeks of pregnancy would generally be the first-line treatment in subsequent pregnancies.
- very high risk mothers, whose previous baby had an ICH before 28 weeks of gestation, the treatment recommended is even more intensive: IVIg 2 g/kg/week from 12 weeks of gestation and adding prednisolone from 20 weeks of gestation.
- Currently, two potentially promising approaches to reduce the burden of disease due to FNAIT are being examined, the PRO FNAIT and Recombinant anti-HPA-1a .

CONCLUSION

- FBS with platelet transfusion is obsolete as first line therapy.
- The efficacy of IVIg is shown in a systematic review
- There is no evidence to support routine screening for pregnancies at risk of FNAIT

REFERENCES:

- Regan F, et al. , on behalf of the Royal College of Obstetricians and Gynaecologists. Prenatal Management of Pregnancies at Risk of Fetal Neonatal Alloimmune Thrombocytopenia (FNAIT). Scientific Impact Paper No. 61. BJOG 2019;126:e173–185.
- Winkelhorst, D., et al. (2017). Antenatal management in fetal and neonatal alloimmune thrombocytopenia: a systematic review, 129(11), pp.1538–1547.