OP13.03 – Maternal determinants of congenital Zika virus infection

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Objective

- To determine if maternal symptoms, prolonged viremia and persistence of specific M-immunoglobulins represent risk factors for congenital ZIKV infection and adverse outcomes

Methods

287 pregnant women ZIKV-infected (including 4 twin pregnancies):

- 215 non-infected fetuses
- 49 fetuses with asymptomatic congenital infection
- 27 infected fetuses with severe adverse outcome (16 CZS + 11 fetal losses)

-> Fetal and neonatal outcomes correlated with maternal symptoms, prolonged viremia (>30 d), persistence of IgM (>90 d)

Results

- Symptomatic maternal ZIKV-infections (n=53): not associated with a higher risk of congenital infection
- Prolonged maternal viremia (n=15): increased risks of congenital infection (60.0% vs 24.6%, aRR 2.44 [95%CI 1.53-3.89]), and severe adverse outcomes (40.0% vs 7.9%, aRR 5.04 [95%CI 2.38-10.65])
- Prolonged IgM response (n=53): increased risks of congenital infection (39.6% vs 17.2%, aRR 2.30 [95%CI 1.43-3.72], and severe adverse outcomes (17.0% vs 3.8%, aRR 4.44 [95%CI 1.66-11.90])

Conclusion

Maternal ZIKV infections with prolonged viremia and persistence of IgM should be considered as a warning sign, leading to enhanced prenatal follow-up of these pregnancies.