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ZIKA VIRUS

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INTRODUZIONE

Zika virus (ZIKV) is a mosquito-borne flavivirus discovered in 1947 that has emerged in the recent years and spread in the Pacific Area, South America, and the Caribbean, where it has caused large human outbreaks. Unique features of ZIKV infection are sexual and transplacental transmission and associated neurological morbidities, i.e. Guillain-Barré syndrome and foetal microcephaly.

METODI:

Revision of experimental and clinical data on transmission of ZIKV during pregnancy and outcome of ZIKV infection.

RISULTATI:

While the vast majority of ZIKV infections in humans are transmitted through mosquito vectors, other modes of transmission have been demonstrated, including sexual transmission, transplacental and perinatal transmission.

The risk of transplacental transmission of ZIKV and foetal damage in humans is still unknown. The outcome of ZIKV infection during pregnancy ranges from miscarriage to the delivery of apparently healthy babies; the severity of foetal anomalies is higher if infection occurs in the first trimester of pregnancy.

The association between ZIKV infection and foetal microcephaly has been supported by detection of ZIKV RNA and infectious virus in the placentas, amniotic cavity, and brains of foetuses with microcephaly. In addition, ZIKV infection of placental cells has been demonstrated in vitro an in animal models. In mice deficient in the interferon signaling pathway, ZIKV can infect the placenta and damage the placental barrier leading to foetal infection, placental insufficiency, intrauterine growth restriction, and, in severe cases, foetal demise.

CONCLUSIONI:

ZIKV biology and pathogenesis, clinical presentation, modes of transmission, laboratory testing, and effects during pregnancy will be reviewed and discussed.