Series of cases describing the evolution of a new pregnancy of four women who were affected by ZIKV in 2015 and whose children were born with Congenital Zika Syndrome (CZS). The pregnant women were followed up by ultrasonography (USG - GE E10). Fetal and or neonatal Magnetic Resonance imaging (MRI-1.5-T Espree-Siemens) and/or computed tomography (CT-16-section CT scanner - Siemens) were performed. The children were evaluated by neuropediatricians. Case 1 - In 2015, presented exanthema with 10 weeks and newborn (NB) had SZC (microcephaly, lysencephaly, subcortical calcifications and RT-PCR positive). The following pregnancy occurred without complications, with normal USG and MRI. Cephalic perimeter (CP) at birth, postnatal MRI and neurocognitive development were normal. Case 2 - In 2015 presented exanthema in the first trimester and NB with SZC (microcephaly, subcortical calcifications and positive RT-PCR). The following pregnancy occurred in 2017, without complications, with normal USG. CP at birth, postnatal CT and neurocognitive development were normal. Case 3 - Previous pregnancy in 2015 without exanthema and NB with SZC (microcephaly, subcortical calcifications and positive RT-PCR), with neonatal death. The following pregnancy occurred in 2017, without intercurrences, with normal USG. CP at birth, postnatal CT and MRI, and neurocognitive development were normal. Case 4 - Previous pregnancy in 2015 with exanthema and NB with SZC (severe ventriculomegaly, lysencephaly, severe cerebellar hypoplasia, microphthalmia, cataract, arthrogryposis and positive RT-PCR), with neonatal death. The following pregnancy occurred in 2017, without intercurrences, with normal USG. CP at birth, postnatal CT and MRI, and neurocognitive development were normal.