Placental deficiency during maternal SARS-CoV-2 infection


STUDY POPULATION

30 pregnant women with SARS-CoV-2 infection

- 22 (73.3%) asymptomatic/mild
- 8 (26.7%) moderate to severe/critical

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MATERNAL-NEONATAL SARS-COV-2 ANTIBODY AND PLACENTAL PATHOLOGY

- All neonates had negative for SARS-CoV-2
- Total anti-SARS-CoV-2 Spike antibodies were higher in pregnant women with moderate to severe/critical disease.
- Umbilical cord SARS-CoV-2 total antibody was higher in the third trimester than the second trimester.
- The abnormal histopathological findings were observed in 8 (57.1%) women with asymptomatic/mild disease and in 6 (100%) women with moderate to severe disease

SAMPLE COLLECTION AND PROCESSING

- Nasopharyngeal swabs
- Maternal and umbilical cord serum
- Placenta and Umbilical cord
- Amniotic fluids

EXAMINATION OF SPIKE PROTEIN IN PLACENTA

- All placentas were negative in immunohistochemical staining for Spike protein.
- Granular positive immunoreactivity with anti-spike antibody in the positive control pellet prepared from SARS-CoV2 infected Vero E6 cells
- There is no positive immunoreactivity with anti-spike antibody in syncytiotrophoblast, which is marked by arrows in the placenta

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