



Placental infarction and intrauterine growth restriction following SARS-CoV-2 infection

Stephanie Moltner¹ · Barbra de Vrijer² · Harrison Banner²

Received: 20 July 2021 / Accepted: 2 August 2021 / Published online: 18 August 2021
© The Author(s), under exclusive licence to Springer-Verlag GmbH Germany, part of Springer Nature 2021

Keywords SARS-CoV-2 · Fetal Growth Restriction · Placenta · COVID-19

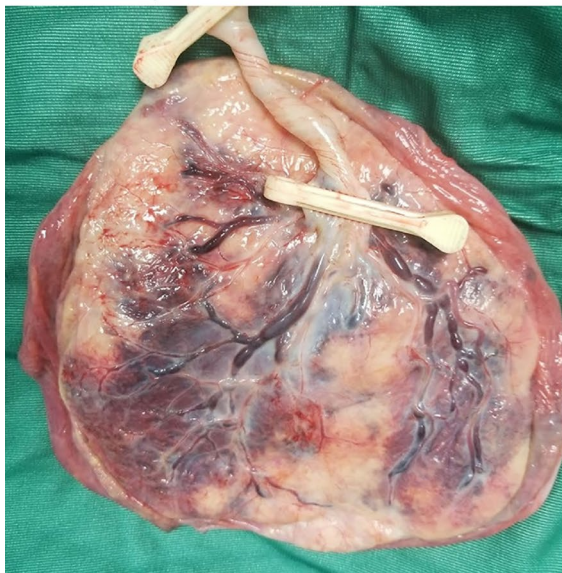
A previously healthy 29-year-old G1 was admitted to the Intensive Care Unit at 29 + 5 with severe thrombocytopenia and respiratory compromise resulting from SARS-CoV-2 infection. Ultrasound showed fetal growth at the 14th percentile with normal fluid and Dopplers.

At 32 + 4, ultrasound demonstrated an almost complete growth arrest, with less than 100 g of growth in 3 weeks, measurements at the 6th percentile, and absent end-diastolic

velocity (AEDV) in the umbilical artery. The patient was admitted for corticosteroids and fetal monitoring. Labour was induced at 34 weeks for AEDV and oligohydramnios and resulted in a vaginal birth of a male infant weighing 1559 g (4th percentile).

The placenta appeared grossly abnormal (Fig. 1) with 60% of the fetal surface demonstrating evidence of infarction and fetal vascular malperfusion. This case is a dramatic

a Fetal side of placenta



b Maternal side of placenta

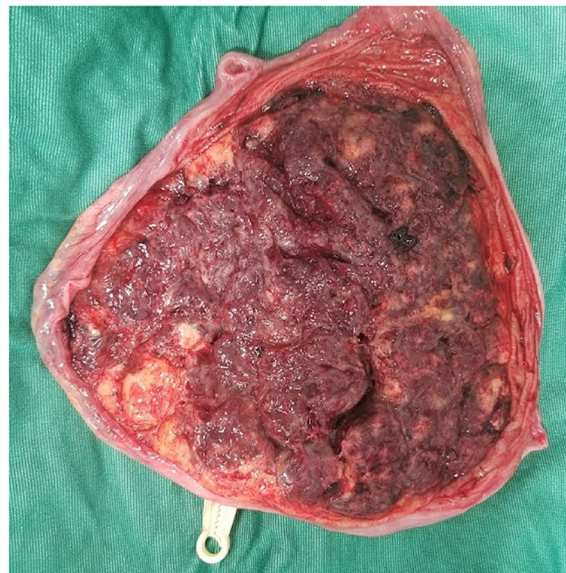


Fig. 1 Placenta demonstrating gross infarction following maternal SARS-CoV-2 infection

✉ Harrison Banner
harrison.banner@lhsc.on.ca

¹ Department of Obstetrics and Gynaecology, Schulich School of Medicine and Dentistry, Western University, London Health Sciences Centre, London, ON, Canada

² Division of Maternal Fetal Medicine, Department of Obstetrics and Gynaecology, Schulich School of Medicine and Dentistry, Western University, London Health Sciences Centre, 800 Commissioners Road East, B2-412, London, ON N6A 5W9, Canada

presentation of arrested fetal growth related to placental vascular pathology. Fetal growth and well-being should be monitored following SARS-CoV-2 infection.

Author contributions SM: manuscript writing/editing, BV: manuscript writing/editing, HB: manuscript writing/editing.

Declarations

Conflict of interest The authors have no conflicts of interest to declare.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.