

PARVOVIRUS IN PREGNANCY

a diagnostic dilemma

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Introduction

Parvovirus B19, a virus with a low risk of serious adverse outcomes in most pregnancies, can infect the erythroid precursors and can cause a haemolytic anaemia. A small proportion of foetal infections can result in severe anaemia or hydrops fetalis.

Objective

To present a case with diagnostic difficulties in investigating the cause of foetal anaemia

Case

A 34-year-old G1P0 Caucasian female presented at 34+1 weeks' gestation with reduced foetal movements. Cardiotocography (CTG) revealed periods of a pseudo-sinusoidal pattern. Ultrasound showed a high peak systolic velocity in the middle cerebral artery of 71cm/s and a multiple of the median of 1.52, indicating moderate-severe foetal anaemia. The CTG progressively worsened with unprovoked decelerations. A category-1 caesarean section delivered a pale neonate with no intraoperative signs of placental abruption. A positive Kleihauer was later received at 57ml of foetal red blood cells. The initial neonatal haemoglobin was 54g/L necessitating resuscitation with red cell transfusion.

Investigations

She had presented to the emergency department at 31+2 weeks' gestation with complaints of chest pain, resulting in an inconclusive CTPA and commencement of therapeutic enoxaparin. Retrospective history found that she had also developed an unexplained arm rash which self-resolved. Investigations for the foetal anaemia were performed, returning an IgM positive/IgG negative result for Parvovirus B19. These results were repeated serially over a period of 3 months with an ongoing IgM positive/IgG negative result for Parvovirus B19. The placental histopathology showed no diagnostic abnormality.

Discussion

Parvovirus is usually diagnosed by demonstrating IgG seroconversion, which did not occur for this patient. Whilst there was a clinical diagnosis of foetal anaemia, there were no other potential causes that were elucidated despite a persistently positive Parvovirus IgM result.