Intrauterine transfusion experience at a tertiary care unit in foetal anaemia Parvovirus B19 related

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Objective. Parvovirus B19 is a human pathogenic virus, which may cause a vertical transmitted infection, leading to foetal anaemia. It was associated with an outbreak in Italy in 2024. The objective is to evaluate the outcomes of intrauterine transfusions in foetuses affected by anaemia Parvovirus B19-related.

Materials and Methods. A retrospective study was conducted at Ospedale Papa Giovanni XXIII Obstetric Pathology Unit. Four pregnant women with anaemic foetuses affected by Parvovirus B19 intrauterine infection were studied. Foetal anaemia was assessed by ultrasound using the peak of systolic velocity of the middle cerebral artery doppler. A total of seven intrahepatic intrauterine foetal transfusions were performed.

Results. In two cases: G3P2 at 19+3 weeks and G4P2 at 21+6 weeks the indication for transfusion was based solely on Doppler ultrasound assessment (PSV in ACM was respectively 1.54 MoM and 1.72 MoM). A single transfusion resulted in the resolution of foetal anaemia. In two cases: G2P1 at 27 weeks and G2P0 at 25+2 weeks, Doppler abnormalities were associated with foetal hydrops or ascites (PSV in ACM was respectively 1.9 MoM and 2.88 MoM), multiple transfusions were required, leading to only a partial resolution of the foetal condition.

Conclusions. The management of foetal anaemia due to Parvovirus B19 intrauterine infection is challenging. The exclusive finding of Doppler ultrasound abnormalities may predict a better response to a single transfusion, whereas additional ultrasound findings such as hydrops are associated with a more complex clinical course and the need for repeated interventions.