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First trimester pericardial effusion. Report of two cases and systematic review of literature.

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Introduction

First trimester isolated pericardial effusion (pe) presentation is very uncommon. Most frequently cause of pe are congenital cardiac diverticula/aneurism (D/A), with a reported incidence of 0,013%. We present two cases of first trimester pericardial effusion with ventricular D/A and perform systematic review of the literature.

Case 1

12+4 weeks(w), referred for massive pe. Fetal eco was performed and D/A of the right ventricle was found. Spontaneous evolution was decided, with resolution at 20 w. Caesarean section at 38+3 w. Normal. Echocardiography and TAC showed a diverticulum. No other complication. .

Case 2

14 w, pe was found. Referred to our center for massive pe at 18 w. We perform fetal echo and pe and D/A of the right ventricle was found. Spontaneous resolution at 20 to 24 w. No other abnormalities. Pregnancy still ongoing.

Nine articles were reviewed, and our cases were included in the analysis. A total of 17 cases were included, 2 ours and 15 previously published.

Systematic review of 17 cases of first trimester pe, shows D/A in all cases. Intervention was performed in 7 cases; however spontaneous resolution was observed 9 (included our cases). During follow up, 2 patients had an arrhythmia, 1 patient had a surgical septal defect correction, and the majority were asymptomatic during follow up.

Conclusion

PE is a rare complication during the first trimester of pregnancy and the most frequently described etiology is ventricular D/A. Although the magnitude of the pericardial effusion can be associated to heart failure, the natural history of this condition can be favorable. Conservative management appears to be a best option.

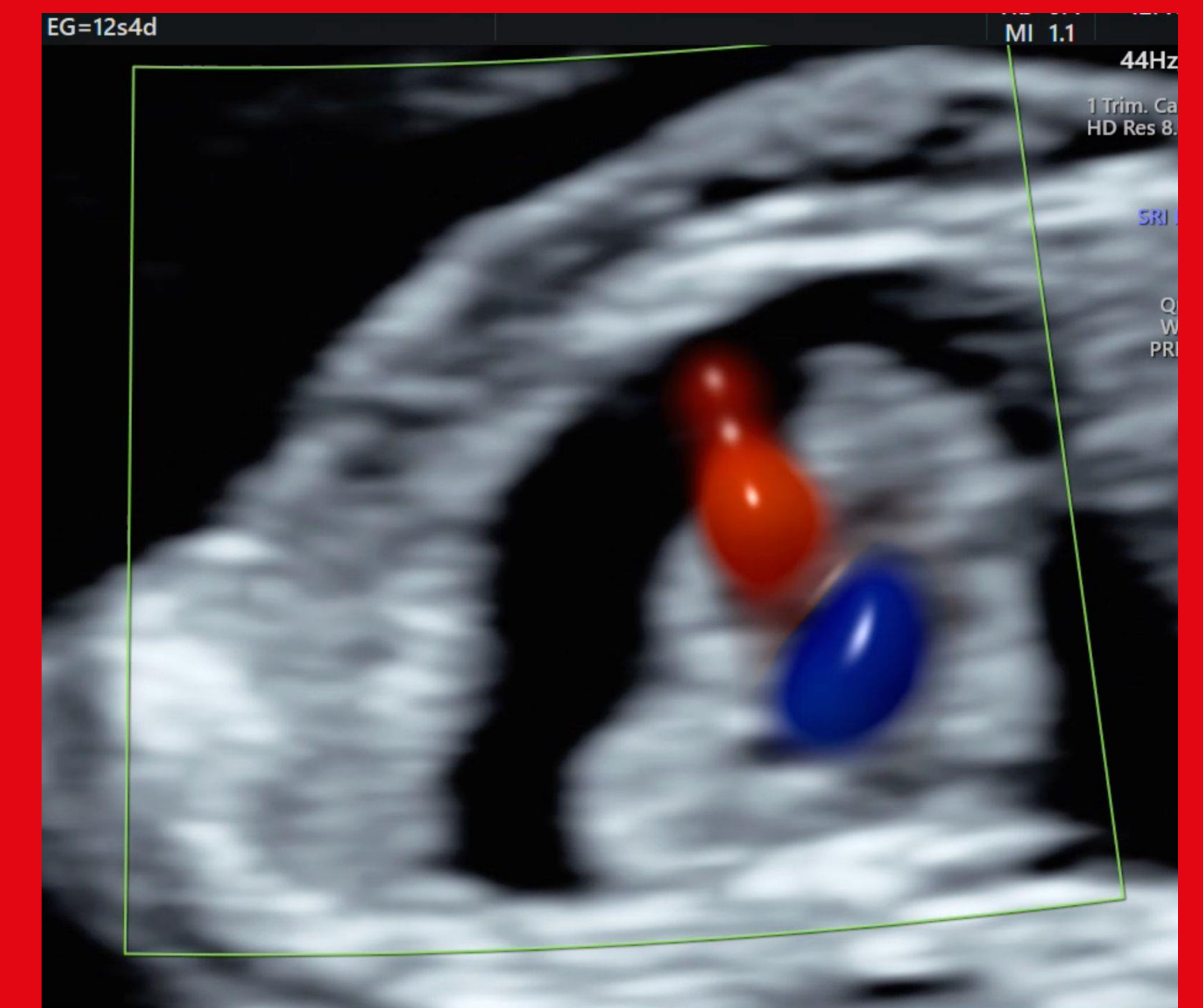


Figure 1. First trimester pericardial effusion. On color Doppler an outflow is seen out of the right ventricle.



Figure 2. First trimester pericardial effusion. An outpouch image in the right ventricle.