FOCAL VIRAL MYOCARDITIS IN AN INFANT: A CHALLENGING DIAGNOSIS

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BACKGROUND AND OBJECTIVES

Focal viral myocarditis is an extremely rare condition characterized by localized disturbance of myocardium resulting in ventricular dysfunction with considerable morbidity and mortality. The clinical presentation and echocardiogram images may mimic anomalous left coronary artery from the pulmonary artery (ALCAPA) or cardiac ischemia.

With this case we aim to increase the awareness of focal viral myocarditis in the differential diagnosis of segmental cardiac ischemic findings and ventricular dysfunction in a previously healthy infant.

CASE SUMMARY

A 10-day-old male with no significant past medical history presented to the Emergency Department with poor oral intake and dyspnea for one day. He presented with central cyanosis and respiratory distress. The Chest X-Ray demonstrated pulmonary edema and cardiomegaly. His respiratory status deteriorated resulting in intubation and transfer to Intensive Care Unit where he arrived with tachycardia, poor distal perfusion and hepatomegaly.

Electrocardiogram (ECG) showed ST segment depression in leads V1-V4 and Q waves in V5-V6.

CLINICAL COURSE

Transthoracic Echocardiogram showed severe Left Ventricular (LV) dysfunction with decreased posterior wall motion, and normal cardiac anatomy and coronary arteries. Work-up revealed severe uncompensated metabolic acidosis, hyperkalemia, and transaminitis. Inflammatory markers were elevated. Cultures were obtained. CSF was positive for Enterovirus. Diagnosis of focal viral myocarditis was made.

Treatment consisted of positive pressure ventilation, intravenous fluids and epinephrine. Milrinone was added after echocardiogram confirmed normal anatomy with decreased function. LV systolic function and distal perfusion subsequently improved, however posterior wall akinesis persisted. Intravenous immunoglobulin was given with resolution of ischemic changes on ECG.

CONCLUSION

Focal myocarditis is a rare manifestation of viral myocarditis in infants. Nonspecific presentation and echocardiogram images mimic cardiac ischemia. This is a rare case due to Enterovirus infection and emphasizes the complexity of focal myocarditis diagnosis and management.

REFERENCES


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