

Patient presentation

X is a preterm infant who was admitted to NPICU after delivery in view of tachycardia as well as a diagnosis of respiratory distress syndrome and hydrops fetalis.

Initial work up

Initial investigations included routine bloods, an abdominal x-ray and a chest x-ray which showed ascites and bilateral pleural effusions respectively. This was suggestive of hydrops fetalis and respiratory distress syndrome.

In view of the patient's tachycardia, a 12 lead ECG was performed which showed Atrial Flutter.

Diagnosis and Management

X was admitted to NPICU after birth. A diagnosis of Atrial Flutter , hydrops fetalis and respiratory distress syndrome were made on the basis of clinical presentation and investigation.

The patient was intubated, ventilated and was started on intravenous fluids and antibiotics. DC cardioversion was performed in order to restore sinus rhythm but early recurrence of atrial flutter occurred after each shock.

She was subsequently started on oral antiarrhythmics which resulted in cardioversion to sinus rhythm. X's heart function was monitored using ECHO. Flecainide and propranolol were eventually stopped in view of a deterioration in cardiac systolic function detected on ECHO.

The baby maintained sinus rhythm and the baby's ejection fraction gradually improved.

The neonate's hydrops fetalis was treated adequately with diuretics and captopril.

Once X was in a stable condition, X was extubated and maintained on captopril.

Follow-up

After discharge, X was seen at children's outpatients. She remained well and in stable condition. No further episodes of Atrial Flutter were recorded. A follow up ECHO was done and this showed an improvement in the patient's cardiac function.

Conclusion(s)

Cardiac arrhythmias are an important cause of morbidity in infants, and, occasionally may also result in mortality.

Though uncommon, it is of utmost importance to diagnose and treat atrial flutter early on as chronic atrial flutter may lead to cardiovascular compromise and congestive heart failure.