

Fetal Chylopericardium

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Abstract

Chylopericardium is one of usual complications after open heart surgery due to thoracic duct injury and associated with special complications which can affect the outcome of that surgery and sometimes needs a complex medical and/or surgical management [1,2].

Congenital isolated chylopericardium is one of very rare conditions in pediatric cardiology and carries a bad prognosis [6,8].

Our case of congenital chylopericardium was diagnosed antenatally and managed with all recommended measures early during infancy.

Keywords: Chylopericardium; Pericardiocentesis; Antenatal

Case report

28 weeks pregnant lady was referred from obstetric department to pediatric cardiology clinic for fetal echocardiography due to mild pericardial effusion in the fetus.

Fetal echocardiography was done at that time which showed mild rim of isolated pericardial effusion 8-10 mm without any hemodynamic effects and normal fetal cardiac anatomy.

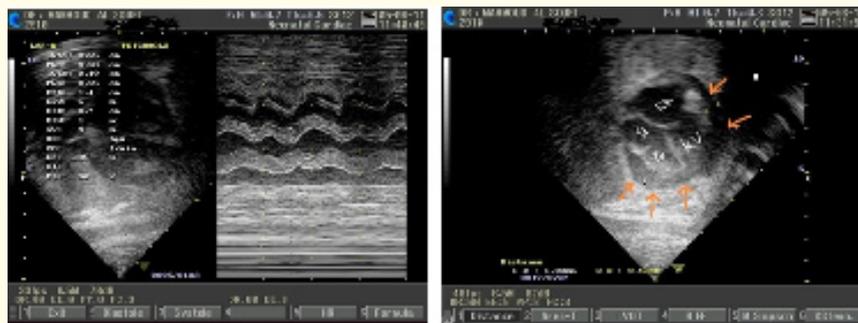


Figure 1: Fetal echocardiography at 28 gestational age with mild pericardial effusion.

Patient was kept under observation with regular follow up and serial fetal echocardiography which showed same degree of pericardial effusion and full investigation was recommended to rule out any secondary causes of pericardial effusion (autoimmune, anemia, hydrops, and etc).

Anomaly scan also was done and confirm that no extra cardiac anomalies.

At 38 weeks gestational age baby was born by normal vaginal delivery with no perinatal or postnatal complications.

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At the age of 24 hours baby was doing well on Breast feeding with stable vital signs.

Echocardiography was done and same degree of pericardial effusion was seen.

Baby was discharged home and given appointment after I month for follow up by echocardiography.

Clinically after one month he was also stable, feeding well, gaining weight with no complain.

Echocardiography at one month of age reviled small amount of stable pericardial effusion 8-10 mm again another follow up appointment was given in pediatric cardiology clinic.

At 3 months of age mother noticed that baby has mild dyspnea and difficult and interrupted feed so she came back to our clinic and echocardiography showed increased amount of pericardial effusion from 8-10 to 20 mm around the heart and mild right atrium and right ventricle compression.

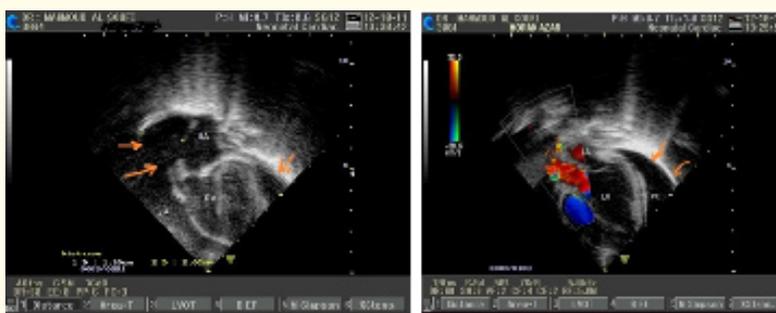


Figure 2: Echocardiography at 3 month of age with increased pericardial effusion (arrows).

At that time patient was prepared for diagnostic and therapeutic pericardiocentesis.

Under general anesthesia pericardiocentesis was done and 165 ml of milky fluid were removed.



Figure 3: Chylous Pericardial Fluid.

Biochemistry analysis of this fluid confirmed the nature of chylous pericardial fluid, so pericardial drain tube was inserted in place and baby kept under close observation as in patient.

Continuous milky fluid draining out was noticed with an average 100-200 ml /day so we kept him Nile by mouth (NPO) and total parenteral nutrition (TPN) was started.

After 7 days the amount of draining fluid ranged from 100-150 with serous/milky fluid.

14 days of supportive therapy were continued by fluid and electrolyte management, vitamin replacement, antibiotic coverage, MCT formula but no change in the amount or nature of pericardial fluid.

The case was discussed then with team including pediatric cardiac surgeon and we decided to do thoracic duct ligation and pericardio-peritoneal window to achieve better result.

After this operation patient start to show some improvement with less fluid drain and after 7 days the tube was removed and MCT formula continued and he was discharged home after 10 days with stable condition.

After one week echocardiography showed no pericardial effusion at all.

Discussion

Isolated Congenital chylopericardium is a uncommon condition and only few cases were described in this filed and most of those cases were noticed postnatally [8,9].

Our case was diagnosed as pericardial effusion antenatally by fetal echocardiography and confirmed postnatally as congenital chylopericardium by pericardiocentesis.

Conservative treatment for chylopericardium is sometimes successful [7], especially after surgery but we think that isolated congenital pericardium itself needs more aggressive treatment with surgical intervention in most of the cases [11,12].

More cases are required to confirm the best treatment of choice for congenital chylopericardium and may be the possibility of antenatal intervention.

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