**Introduction**

The primary cardiac tumor (PCT) is a rare disease in children, with a frequency between 0.03-0.32%. Eighty percent are benign tumors. Usually they are asymptomatic and discovered fortuitously.

**Objectives**

- To recall the clinical and sono graphic features of primitive and benign cardiac tumors in children
- To cite complications through observations of 5 newborns.

**Observations**

Here is a table summarizing the clinical and ultrasound characteristics of our patients.

<table>
<thead>
<tr>
<th>Patient</th>
<th>Medical background</th>
<th>Prenatal ultrasound</th>
<th>Prenatal resounding</th>
<th>Postnatal ultrasound</th>
<th>Postnatal resounding</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leith (1)</td>
<td>- at term</td>
<td>- by vaginal route</td>
<td>- curophylic</td>
<td>- good Appear</td>
<td>CT showing a left intraventricular rhabdomyoma</td>
<td>In the aorta which partially obstructed</td>
</tr>
<tr>
<td>Taher (2)</td>
<td>- at term</td>
<td>- by vaginal route</td>
<td>- curophylic</td>
<td>- good Appear</td>
<td>Biventricular Rhabdomyoma (Figure 1)</td>
<td>Multiple biventricular whose largest was opposite to the large mitral valve</td>
</tr>
<tr>
<td>Yousef (3)</td>
<td>- at term</td>
<td>- by vaginal route</td>
<td>- curophylic</td>
<td>- good Appear</td>
<td>Right ventricular fibroma (Figure 2)</td>
<td>In the trabecular room of the right ventricle</td>
</tr>
<tr>
<td>Khaled (4)</td>
<td>- at term</td>
<td>- by vaginal route</td>
<td>- curophylic</td>
<td>- good Appear</td>
<td>Two hyperechoic spots 2 mm each depends on the valvarular pillars in the left ventricle</td>
<td>Nothing</td>
</tr>
<tr>
<td>Eya (5)</td>
<td>- caesarean section</td>
<td>- intrauterine growth retardation</td>
<td></td>
<td></td>
<td>Tumor taking all the right ventricle</td>
<td>Aspect of trabeculation</td>
</tr>
</tbody>
</table>

**Conclusion**

Children's cardiac tumors are usually benign. The severity is related to functional consequences to which depends the support. Surgery is the best treatment with an excellent prognosis.

**Discussion**

- Fetal primary cardiac tumors (PCT) are uncommon and discovered by widely use of prenatal echocardiography[1].
- Benign tumors are the most frequent[2,3] in children as well as in fetuses.
- Cardiac rhabdomyomas, teratomas, and fibromas remained the three most common types[4].

![Figure 1](Image1.png)

**Figure 1**: Three-dimensional echocardiograms using a matrix array transducer. Large right and left ventricular rhabdomyomas

- Rhabdomyoma is the most common PCT in fetal life and childhood.
- It involves the left and right ventricles and ventricular septum.
- They often grow into the intracavity of the cardiac chambers this is the case of patients 1 and 2. They are associated with tuberous sclerosis in up to 50% of cases [6,7] which may be the case of yousef who showed convulsions type bending spasms.
- Usually PCT are asymptomatic and discovered fortuitously but they may cause intracardiac flow obstruction, heart valve insufficiency, arrhythmia [8], heart failure, and hydrops fetalis, or even sudden fetal death[4]. This joins our results since 2/4 patients are asymptomatic.
- Cardiac ultrasound is paramount in the prenatal diagnosis but there is misdiagnosis. Recalling the echogenic foci in the ventricles, particularly those in the papillary muscles, can be hyperechogenic and may sometimes mimic rhabdomyomas, according to Yuan S-M. So cardiac MRI is an important complementary modality for characterization of the mass and effect on cardiac function [9].
- Histological study of the tumor (biopsy or surgical specimen) remains the best way to confirm the Diagnosis[10].
- Therapeutic management of PCT depends on its location, size, number, and complications. Surgery is the solution for tumors resonating on the haemodynamic state. A clinical follow-up may be prescribed in case of rhabdomyoma which may regress spontaneously [11].
- Everolimus an mTOR inhibitors which proved its effectiveness for the treatment of different clinical manifestations of tuberous sclerosis remains the therapeutic future in case of rhabdomyoma[12].

![Figure 2](Image2.png)

**Figure 2**: Spin-echo MRI from a child with a large right ventricular fibroma

![Figure 3](Image3.png)

**Figure 3**: Microscopic features of the Tumor in the autopsy: spider cells

![Figure 4](Image4.png)

**Figure 4**: Supra Ventricular tachycardia in electrocardiogram

![Figure 5](Image5.png)

**Figure 5**: Incidences of primary cardiac tumors from Parameva et al. in our case series.