**Objective:**
The aim of this study is to evaluate the perinatal outcomes and postnatal follow-up of prenatal diagnosed suprarenal masses (SRM) evaluated by MRI.

**Methods:**
13 fetuses with SRM detected during routine prenatal ultrasound studies between February 2007 and May 2015 were evaluated by MRI. The prenatal characteristics of the masses, the complications of the pregnancies and related malformations, as the postnatal clinical, radiological and pathological data were collected.

**Case 1:** Fetal MRI at 30 weeks. The diagnosis of nongenitary cyst was made. Pregnancy interrupted at 33w and 1700g (preeclampsia). The mass was not found at 3 years of age.

**Case 2:** Neuroblastoma. Fetal MRI at 37 weeks. A solid area above the right kidney was found, hypointense. The liver was enlarged and with heterogeneous and hypointense signal intensity on T2-weighted sequence. The infant weighted 2890g and hepatomegaly. The child was asymptomatic at 5 months.

**Case 3:** Fetal MRI at 27 weeks, presenting a hyperintense signal, heterogeneous on T2-weighted sequence and low-intense on T1-weighted sequence. The mass remained asymptomatic during the pregnancy and regression during the neonatal life. The child presented bicuspic aortic valve.

**Results:**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MRI</strong></td>
<td></td>
</tr>
<tr>
<td>Median gestational age</td>
<td>30 weeks (18-41)</td>
</tr>
<tr>
<td>Mass location</td>
<td>69.2% left</td>
</tr>
<tr>
<td>Mass characteristics</td>
<td>69.2% cystic</td>
</tr>
<tr>
<td>Follow-up</td>
<td>6 years (1.3-10)</td>
</tr>
<tr>
<td><strong>Neonatal</strong></td>
<td></td>
</tr>
<tr>
<td>Birth weight</td>
<td>3285g (1700-3750)</td>
</tr>
<tr>
<td>Preterm delivery</td>
<td>23%</td>
</tr>
<tr>
<td>Preeclampsia</td>
<td>7.6%</td>
</tr>
<tr>
<td>Placenta previa</td>
<td>7.6%</td>
</tr>
<tr>
<td>PROM</td>
<td>7.6%</td>
</tr>
<tr>
<td>Associated malformations</td>
<td>23%</td>
</tr>
<tr>
<td><strong>Postnatal data</strong></td>
<td></td>
</tr>
<tr>
<td>Spontaneous resolution during pregnancy</td>
<td>15.4%</td>
</tr>
<tr>
<td>1st year of life</td>
<td>30.7%</td>
</tr>
<tr>
<td>Surgical treatment</td>
<td>15.4%</td>
</tr>
<tr>
<td>discordant diagnosis</td>
<td>7.6%</td>
</tr>
<tr>
<td>Masses without modifications</td>
<td>38.4%</td>
</tr>
</tbody>
</table>

**Conclusions:**
Prenatal suprarenal masses are related with preterm labor and congenital heart defects. The spontaneous regression and the absence of modifications in the masses were a common long-term outcome of SRM.