(two patient groups and control group). In group A patients with isolated cyanotic congenital heart disease were enrolled. Group B consisted of the patients with cyanotic congenital heart disease with other concomitant diseases. Group C included the healthy control group. For the neurodevelopmental evaluation Bayley Scale of Infant Development-II was used.

Results

Bayley Scale of Infant Development- II was used. The mental-motor retardation is frequently encountered in children with cyanotic congenital heart disease. For this reason, these children have to be under regular follow up for neurodevelopmental status.

Abstract PS-025 Table 1 Statistical comparison of screening modalities

<table>
<thead>
<tr>
<th>Sensitivity (%)</th>
<th>Specificity (%)</th>
<th>PPV (%)</th>
<th>NPV (%)</th>
<th>LR+</th>
<th>LR-</th>
<th>ROC AUC</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE</td>
<td>50</td>
<td>100</td>
<td>100</td>
<td>98.8</td>
<td>0.5</td>
<td>0.74</td>
</tr>
<tr>
<td>POX</td>
<td>90</td>
<td>99.9</td>
<td>69.2</td>
<td>99.9</td>
<td>0.1</td>
<td>0.95</td>
</tr>
<tr>
<td>ECHO</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>0</td>
<td>0.98</td>
</tr>
</tbody>
</table>

Conclusions

Mental-motor retardation is frequently encountered in children with cyanotic congenital heart disease. For this reason, these children have to be under regular follow up for neurodevelopmental status.

Background and aim

Neonates with left ventricular outflow tract obstruction (LVOTO) are at risk of developing brain damage, due to either ischemia or hypoxemia. Our aim was to explore the differences in cerebral and renal tissue oxygen saturation (rSO2) and extraction (FTOE) between neonates with LVOTO with or without compromised antegrade aortic flow.

Methods

We included fourteen neonates with LVOTO and categorised them into neonates with compromised antegrade ascending aortic flow (hypoplastic left heart syndrome (n = 6)) and neonates without compromised antegrade ascending aortic flow (coarctatio aortae (n = 7)/non-critical aortic valve stenosis (n = 1)). We measured cerebral and renal rSO2 using near-infrared spectroscopy during 72 h. Simultaneously, we measured preductal arterial oxygen saturation (SpO2) and calculated FTOE.

Results

On day 1, neonates with compromised antegrade ascending aortic flow had lower cerebral rSO2 than neonates without compromised antegrade ascending aortic flow (median rSO2 68.5% vs. 79.4%, p-value = 0.032). Furthermore, cerebral FTOE tended to be higher in neonates with compromised antegrade ascending aortic flow (median FTOE 0.30 vs. 0.14, p-value = 0.086). Significant differences in cerebral rSO2 and FTOE disappeared the following days. There were no differences in SpO2, renal rSO2 and FTOE between both groups.

Conclusions

Because there were no differences in SpO2 between both groups, and cerebral FTOE tended to be higher in neonates with compromised antegrade ascending aortic flow, the lower cerebral oxygen saturation might be due to ischemia rather than hypoxemia. Furthermore, in neonates with antegrade ascending aortic flow, cerebral oxygenation might be spared.

PS-027 STRATIFICATION OF COMPLEXITY IN CONGENITAL HEART SURGERY: COMPARISON BETWEEN RACHS-1 (RISK ADJUSTMENT FOR CONGENITAL HEART SURGERY), ARISTOTLE AND STS-EACTS METHODS

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