has been recently related to a diffuse brain injury pattern. This study aims to analyse the relationship of total and regional CC volumes with intelligence and motor impairment severity in dyskinetic CP.

Methods 15 subjects (age range, 12–34) with dyskinetic CP and signs of perinatal asphyxia underwent a MRI. CC total, anterior, central and posterior volumes were calculated (Figure 1). The intelligence and motor scales most commonly used in CP were administered.

Results The CC total volume and most of its parts were related to intelligence and motor measures (Table 1).

Conclusions Total CC volume may be indicative of intelligence and motor status in dyskinetic CP. Regionally, the anterior part of the CC is not found to be related to motor function. This result agrees with the fact that premotor and sensorimotor fibres are located more posteriorly than previously thought.

Non-Invasive Ventilation – What is the Evidence?

Abstract O-074 Table 1

<table>
<thead>
<tr>
<th>Device</th>
<th>Prongs/cannulae</th>
<th>Set pressure (cm H2O)</th>
<th>Set flow (L/min)</th>
<th>Oropharyngeal temperature (°C)</th>
<th>Oropharyngeal RH (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Babylog</td>
<td>Infant Flow</td>
<td>8</td>
<td>8</td>
<td>35.1</td>
<td>88.0</td>
</tr>
<tr>
<td>Vapotherm</td>
<td>Vapotherm</td>
<td>8</td>
<td>8</td>
<td>34.3</td>
<td>81.2</td>
</tr>
<tr>
<td>Optiflow Jr.</td>
<td>Optiflow Jr.</td>
<td>8</td>
<td>8</td>
<td>36.3</td>
<td>88.8</td>
</tr>
<tr>
<td>LFNC</td>
<td>Salter</td>
<td>8</td>
<td>8</td>
<td>33.5</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Conclusions Achieved oropharyngeal temperature and RH varied between devices. RH of 0.8% occurred during LFNC using unconditioned ‘dry’ gas. Most devices achieved temperatures >34°C and >80% RH. Bubble CPAP delivered by Hudson prongs resulted in an oropharyngeal temperature above body temperature, which could result in water condensation as gas cools in the airway.

New Concepts In Neonatal Sepsis

O-077 MEASUREMENT OF RESPIRATORY MECHANICS AND THORACOABDOMINAL ASYNCHRONY INDICES IN NEONATES BY RESPIRATORY INDUCTANCE PLETHYSMOGRAPHY DURING NON-INVASIVE VENTILATION

Background Measurement of respiratory mechanics during non-invasive ventilation (NIV) precludes use of the traditional airway flow sensor. Increasing use of NIV in premature infants necessitated novel instrumentation for measuring airflow without interfering with the nasal/oral interface. Respiratory inductance plethysmography (RIP), in addition to providing chest wall motion analysis, may be used for volume and airflow measurements when properly calibrated.

Objective To develop an efficient RIP calibration technique to allow bedside measurement of respiratory mechanics and to validate it’s accuracy against traditional pneumotachometer (PNT) measurements while simultaneously computing thoracoabdominal asynchrony indices in premature infants.

Design/methods RIP ribcage and abdominal signals were recorded simultaneously with facemask PNT signals. RIP was calibrated by qualitative diagnostic calibration and multiple
O-074 The Relationship Between Multisite Nirs-measurements And Routine Haemodynamic Measurements In Preterm Infants With Clinical Sepsis
ME van der Laan, TE Schat, AF Bos and EMW Kooi

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