**FibroScan® is a new non-invasive method for the diagnosis of liver fibrosis in children: a prospective comparison with Fibrotest, and liver biopsy.**

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**Abstract**

**Background & Aims**

non-invasive and rapid (< 5 mn) bedside method to assess liver fibrosis

**Aim**

Introduction

Correlation of FibroScan® and fibrotest by measuring liver stiffness in adult patients. In adult patients, liver fibrosis can be assessed by measuring liver stiffness using ultrasonography.

**Patients and methods**

Prospective study

104 children with chronic liver disease.

Clinical, biological, morphological evaluation

Fibrotest and FibroScan®

If needed, liver biopsy: METAVIR and SSQ* score

**Characteristics of the 104 children**

- Gender (Boys / Girls): 46 / 55
- Mean age (years): 10.7 (1 month – 20 years)
- ALT (IU/l): 143 ± 249
- AST (IU/l): 132 ± 297
- Total bilirubin (mmol/l): 33 ± 65
- Platelet count (G/l): 218 ± 91
- Prothrombin Time (%): 85 ± 12
- Albumin (g/l): 41 ± 4

**Liver diseases**

<table>
<thead>
<tr>
<th>Disease</th>
<th>All children (n=104)</th>
<th>Children with liver biopsy (n=94)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cystic fibrosis</td>
<td>38</td>
<td>0</td>
</tr>
<tr>
<td>Biliary atresia</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>Chronic viral hepatitis</td>
<td>19</td>
<td>3</td>
</tr>
<tr>
<td>Wilson disease</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Autoimmune hepatitis</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>16</td>
<td>10</td>
</tr>
</tbody>
</table>

**Conclusion**

- In children, it is feasible to perform liver stiffness measurement using FibroScan®.
- FibroScan® is a good method for the evaluation of liver fibrosis and severity of liver disease.
- Fibrotest is less useful than FibroScan® for the evaluation of liver fibrosis.
- FibroScan® could avoid liver biopsy in many cases and its usefulness in the follow-up of children should be evaluated.

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