Abstracts

M Groselj-Grenc, M Dergac, AN Kopitar. Department of Paediatric Surgery and Intensive Care, University Medical Centre Ljubljana; Institute of Microbiology and Immunology, Faculty of Medicine, University of Ljubljana, Ljubljana, Slovenia

Background and Aims Children with temporary external ventricular drains are prone to nosocomial infections. Diagnosis of bacterial ventriculitis in these children is challenging due to frequent blood contamination of cerebrospinal fluid (CSF), presence of chemical ventriculitis and elevation of blood laboratory markers by concomitant bacterial infection. Therefore determination of novel marker of bacterial infection CD64in in CSF seems to be promising.

Methods We conducted a prospective, observational pilot study enrolling children with external ventricular drainage at surgical ward and paediatric intensive care unit. CD64in in CSF together with CSF leukocyte count, glucose, proteins and blood leukocyte count, CRP, PCT were studied at the time of suspected ventriculitis. CD64in was measured by flow cytometry (Trillium Diagnostics, LLC, Brewer, ME).

Results Ten episodes of clinically suspected ventriculitis in 6 children (male 4, female 2, median age: 9 months, range: 4–167 months) were observed during a 6-month period. Episodes were classified into those with microbiologically proven ventriculitis (5 episodes) and into those with microbiologically negative CSF (5 episodes). CD64in was significantly higher in episodes with ventriculitis in comparison to episodes without ventriculitis (Table). Other blood and CSF markers did not differentiated between groups.

Conclusions CD64in might be a useful diagnostic marker of bacterial ventriculitis in children with external ventricular drainage before microbiological confirmation. A larger study is needed in the future.

929 SCREENING FOR TUBERCULOSIS WITH A TUBERCULIN SKIN TEST IN BCG VACCINATED INTERNATIONALLY ADOPTED CHILDREN

doi:10.1136/archdischild-2012-302724.0929

T Boiy, JA Van Gompel, M Wojciechowski. University of Antwerp, Antwerp University Hospital, Edegem; Institute of Tropical Medicine, Antwerpen, Belgium

Background and Aims Children with temporary external ventricular drains are prone to nosocomial infections. Diagnosis of bacterial ventriculitis in these children is challenging due to frequent blood contamination of cerebrospinal fluid (CSF), presence of chemical ventriculitis and elevation of blood laboratory markers by concomitant bacterial infection. Therefore determination of novel marker of bacterial infection CD64in in CSF seems to be promising.

Methods We conducted a prospective, observational pilot study enrolling children with external ventricular drainage at surgical ward and paediatric intensive care unit. CD64in in CSF together with CSF leukocyte count, glucose, proteins and blood leukocyte count, CRP, PCT were studied at the time of suspected ventriculitis. CD64in was measured by flow cytometry (Trillium Diagnostics, LLC, Brewer, ME).

Results Ten episodes of clinically suspected ventriculitis in 6 children (male 4, female 2, median age: 9 months, range: 4–167 months) were observed during a 6-month period. Episodes were classified into those with microbiologically proven ventriculitis (5 episodes) and into those with microbiologically negative CSF (5 episodes). CD64in was significantly higher in episodes with ventriculitis in comparison to episodes without ventriculitis (Table). Other blood and CSF markers did not differentiated between groups.

Conclusions CD64in might be a useful diagnostic marker of bacterial ventriculitis in children with external ventricular drainage before microbiological confirmation. A larger study is needed in the future.

Abstract 929 Figure 1 CSF markers in diagnosing bacterial ventriculitis

930 ESTIMATION OF THE PREDICTIVE VALUE OF EOSINOPHILIA FOR INTESTINAL PARASITIC INFECTION IN INTERNATIONALLY ADOPTED CHILDREN

doi:10.1136/archdischild-2012-302724.0930

T Boiy, IA Van Gompel, M Wojciechowski. University of Antwerp, Antwerp University Hospital, Edegem; Institute of Tropical Medicine, Antwerpen, Belgium

Background and Aims Eosinophilia may be associated with parasitic infection. To our knowledge the predictive value of eosinophilia has not been determined in internationally adopted children (IAC).

Methods Eosinophilia definition: absolute count ≥ 450/µl. Eosinophil counts were available in 285/314 IAC seen between 01/01/2008 and 31/03/2012. Feces and serological examinations for Strongyloides and Schistosoma were done in all children. We calculated the positive predictive value, negative predictive value and likelihood ratios of eosinophilia ≥ 450/µl for all parasites, solely pathogenic and solely tissue invading parasites in all 285 and 197 Ethiopian children.

Results

Abstract 930 Table 1 All 285 children

<table>
<thead>
<tr>
<th>Any parasites</th>
<th>No parasites</th>
<th>Pathogenic parasites</th>
<th>No pathogenic parasites</th>
<th>Tissue invading parasites</th>
<th>No tissue invading parasites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eosinophils ≥ 450</td>
<td>65</td>
<td>13</td>
<td>60</td>
<td>18</td>
<td>37</td>
</tr>
<tr>
<td>Eosinophils &lt; 450</td>
<td>129</td>
<td>78</td>
<td>99</td>
<td>108</td>
<td>40</td>
</tr>
<tr>
<td>PPV</td>
<td>83%</td>
<td>77%</td>
<td>47%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NPV</td>
<td>38%</td>
<td>52%</td>
<td>81%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LR+</td>
<td>2.35</td>
<td>2.64</td>
<td>2.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LR-</td>
<td>0.78</td>
<td>0.73</td>
<td>0.65</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Abstract 930 Table 2 197 Ethiopian children

<table>
<thead>
<tr>
<th>Any parasites</th>
<th>No parasites</th>
<th>Pathogenic parasites</th>
<th>No pathogenic parasites</th>
<th>Tissue invading parasites</th>
<th>No tissue invading parasites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eosinophils ≥ 450</td>
<td>59</td>
<td>9</td>
<td>54</td>
<td>14</td>
<td>33</td>
</tr>
<tr>
<td>Eosinophils &lt; 450</td>
<td>92</td>
<td>37</td>
<td>72</td>
<td>57</td>
<td>30</td>
</tr>
<tr>
<td>PPV</td>
<td>87%</td>
<td>79%</td>
<td>49%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NPV</td>
<td>29%</td>
<td>44%</td>
<td>77%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LR+</td>
<td>2</td>
<td>2.17</td>
<td>2.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LR-</td>
<td>0.76</td>
<td>0.71</td>
<td>0.64</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Conclusion In this population the predictive value of eosinophilia is weak for parasitic infection.

931 INTESTINAL PARASITES IN INTERNATIONALLY ADOPTED CHILDREN IN BELGIUM

doi:10.1136/archdischild-2012-302724.0931

T Boiy, IA Van Gompel, M Wojciechowski. University of Antwerp, Antwerp University Hospital, Edegem; Institute of Tropical Medicine, Antwerpen, Belgium

Background and Aims Children with temporary external ventricular drains are prone to nosocomial infections. Diagnosis of bacterial ventriculitis in these children is challenging due to frequent blood contamination of cerebrospinal fluid (CSF), presence of chemical ventriculitis and elevation of blood laboratory markers by concomitant bacterial infection. Therefore determination of novel marker of bacterial infection CD64in in CSF seems to be promising.

Methods We conducted a prospective, observational pilot study enrolling children with external ventricular drainage at surgical ward and paediatric intensive care unit. CD64in in CSF together with CSF leukocyte count, glucose, proteins and blood leukocyte count, CRP, PCT were studied at the time of suspected ventriculitis. CD64in was measured by flow cytometry (Trillium Diagnostics, LLC, Brewer, ME).

Results Ten episodes of clinically suspected ventriculitis in 6 children (male 4, female 2, median age: 9 months, range: 4–167 months) were observed during a 6-month period. Episodes were classified into those with microbiologically proven ventriculitis (5 episodes) and into those with microbiologically negative CSF (5 episodes). CD64in was significantly higher in episodes with ventriculitis in comparison to episodes without ventriculitis (Table). Other blood and CSF markers did not differentiated between groups.

Conclusions CD64in might be a useful diagnostic marker of bacterial ventriculitis in children with external ventricular drainage before microbiological confirmation. A larger study is needed in the future.
929 Screening for Tuberculosis with a Tuberculin Skin Test In BCG Vaccinated Internationally Adopted Children
T Boiy, J Ramet, S Verhulst and M Wojciechowski

Arch Dis Child 2012 97: A266
doi: 10.1136/archdischild-2012-302724.0929

Updated information and services can be found at:
http://adc.bmj.com/content/97/Suppl_2/A266.1

These include:

Email alerting service
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Notes

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/