Conclusion This multi-layered risk evaluation should aid the future management of children attending the PED being investigated for SBI.

1579 PROCALCITONIN IN PEDIATRIC EMERGENCY DEPARTMENTS FOR THE DIAGNOSIS OF INVASIVE INFECTIONS

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Background Procalcitonin is used in pediatric emergency departments for the early diagnosis of invasive bacterial infections, especially for febrile children.

Aim of the Study To evaluate the usefulness of a rapid semiquantitative test of procalcitonin for the diagnoses of invasive diseases at children.

Methods We have prospectively evaluated 25 patients divided into two groups: 1) group A with 6 patients having viral infections and 2) group B with bacterial infections comprised of 19 patients. For this group we had a score made of leucocytes over 16000/mm³, granulocytes over 12000/mm³, erythrocyte sedimentation rate (ESR) > 50 mm/h and C reactive protein (CRP) > 2.4 mg/dl, procalcitonin (CPT) > 0.5 ng/ml.

Results The analysis of ROC curves shows the degree in which inflammatory tests may distinguish between the two groups. This suggests that the quality of separation between the two groups was 0.86 for CPT, 0.85 for CRP, 0.67 for leucocytes, 0.62 for granulocytes and 0.82 for ESR (p<0.001).

Conclusion Procalcitonin has a higher specificity and sensitivity compared to the other acute phase reactants (leucocyte number, neutrophil number, ESR and CRP respectively). Procalcitonin may be considered in the emergency department as a valuable diagnostic tool in order to distinguish between viral and bacterial infections at children.

1580 LUMBAR PUNCTURE(LP) IN INFANTS AND CHILDREN WITH SUSPECTED MENINGITIS-DIAGNOSTIC YIELD OVER 15 YEARS

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Background Bacterial meningitis is a serious disease that leads to much anxiety among the medical profession and parents. LP has long been a key tool for the diagnosis of meningitis.

Objectives To determine the diagnostic yield from LP over 15 years in Mid Western region of Ireland.

Methods A retrospective cohort analysis of laboratory data of all lumbar punctures performed from July 1996 to December 2010 in Paediatric department Mid Western Regional Hospital and maternity Hospital-Limerick-Ireland.

Results 1587 LPs were performed from July 1996 to December 2010. 646 samples were obtained from July 1996 to December 2000 and 468 samples obtained from January 2001 to December 2005. 378 LPs were performed from 2006 to 2010 and 967 children (65%) were 2 years or younger 18/1487 (1.2%) patients had bacterial meningitis from 2001 to 2010, 15/18 (83%) were infants. CSF leucocytes was noted in 17/18 patients (94%). Nisseria meningitidis type B and Strept. Pneumoniae were isolated in 58% ≤27% of cases respectively.

Conclusion The incidence of bacterial meningitis is decreasing due to effective vaccination (18/1487 patients (1.2%), 83% infants. The role of LP in the diagnosis of meningitis is crucial. Nisseria meningitidis type B is the leading cause of bacterial meningitis over the last decade. CSF leucocytes are better indicators of disease than white blood cells. CSF PCR testing is more sensitive than serum PCR in the diagnosis of disease and should be requested in all cases with suspected meningitis.

1581 ASSOCIATION OF TACHYCARDIA WITH SERIOUS BACTERIAL INFECTION IN YOUNG CHILDREN

doi:10.1136/archdischild-2012-302724.1581
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Background and Aim Diagnosis of a serious bacterial infection (SBI) in young children can be challenging. Clinical features at presentation are used to guide investigation and management. We aimed to determine whether tachycardia is associated with a higher risk of SBI.

Methods Prospective cohort study of children <6 years old referred to a children’s acute assessment unit with documented or reported temperature (July 2011 – February 2012). We examined the association between maximum heart rate during admission (Heart rate: ≥90th percentile for age corrected for temperature) and confirmed SBI (defined as per NICE guidelines).

Results 120 children participated. 37 children were tachycardic. 21 children had a confirmed SBI.

Abstract 1581 Table 1

<table>
<thead>
<tr>
<th>Disease-ve</th>
<th>Disease-ve</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test positive</td>
<td>14</td>
<td>23</td>
</tr>
<tr>
<td>Test negative</td>
<td>7</td>
<td>76</td>
</tr>
<tr>
<td>Positive predictive value</td>
<td>0.37</td>
<td></td>
</tr>
<tr>
<td>Negative predictive value</td>
<td>0.95</td>
<td></td>
</tr>
</tbody>
</table>

Conclusions In this cohort of young children referred to an acute assessment unit with fever, the presence of tachycardia did not predict reliably SBI, but absence of tachycardia excluded SBI in 95% of children.

1582 OUR EXPERIENCE IN FUNCTIONAL ENDOSCOPIC SURGERY OF PARANASAL SINUSES IN CHILDREN

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Background Functional endoscopic paranasal sinuses surgery actually serves as a method of election in surgical treatment of pediatric sinusitis.

The Aim of our research was to analyze some results of different types of functional endoscopic sinus surgery in children.

Subjects In study were included 420 of children (275 boys and 145 girls) of age between 7 and 14 years old with chronic and recurrent paranasal sinusitis.

Methods We analyzed duration of hospitalization and the percentage of complete functional recovery in 3 groups of patients: I group (84 children) received the standard method, II group (151 children) - the minim invasive method, III group (250 children) - minim invasive method in a proper modification, which provides partial vertical resection of the hamulus and the limited resection of anatomical structures of the osteomeatal complex. Before surgery nasal endoscopy, computer tomography of paranasal sinuses, acoustic rhinometry, the respiratory function of nose, olfaction function, motor activity of the transitory epithelium were studied.