PARTICIPANTS, METHODS, AND RESULTS

The study was conducted between November 1999 and March 2000 in a paediatric community based office practice and at the Hospital for Sick Children, Toronto, Canada. Paired lower nasal swabs (LNS) and high nasopharyngeal swabs (NPS) were obtained from each of 199 children with a median age of 1.5 years (range 11 days to 13.8 years), presenting with acute ARI. For LNS a cotton tipped swab was placed 1.0–1.5 cm into the nostril and rotated three or four times. For NPS, the swab was inserted 5.0–6.0 cm in the opposite nostril and the rotation procedure repeated. Swabs were submitted in transport medium and were sent to the Department of Pediatric Laboratory Medicine at the Hospital for Sick Children within 30 minutes of collection.

The detection of RSV was comparable to that of influenza (table 1). Significantly less pain was experienced with LNS compared with NPS on all three outcomes measured. In LNS compared with NPS, the median discomfort score was 38 (range 0–120) versus 85 (range 0–120, p < 0.01), and the mean length of cry was 20 seconds (range 0–120) versus 120 seconds (range 0–120, p < 0.01). Children also scored significantly lower for discomfort with LNS (table 2).

COMMENT

In this study nasal swabs were shown to be as effective as nasopharyngeal swabs in identifying respiratory viruses (influenza, RSV). The procedure of choice for the detection of respiratory viruses in children presenting with ARI.

Abbreviations: ARI, acute respiratory infection; DFA, direct immunofluorescence microscopy; EIA, enzyme immunoassay; LNS, lower nasal swab; NPS, high nasopharyngeal swab; RSV, respiratory syncytial virus.

Table 1

<table>
<thead>
<tr>
<th>Lower nasal swab</th>
<th>Nasopharyngeal swab</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Influenza</td>
<td>RSV</td>
<td>Neither</td>
<td>Total</td>
</tr>
<tr>
<td>Influenza</td>
<td>49</td>
<td>0</td>
<td>5</td>
<td>54</td>
</tr>
<tr>
<td>RSV</td>
<td>0</td>
<td>35</td>
<td>4</td>
<td>39</td>
</tr>
<tr>
<td>Neither</td>
<td>18</td>
<td>4</td>
<td>94</td>
<td>106</td>
</tr>
<tr>
<td>Total</td>
<td>57</td>
<td>39</td>
<td>103</td>
<td>199</td>
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</tbody>
</table>

Table 2

<table>
<thead>
<tr>
<th>Pain variable</th>
<th>Lower nasal swab</th>
<th>Nasopharyngeal swab</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cry duration, seconds</td>
<td>25</td>
<td>20</td>
<td>&lt;0.01</td>
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<tr>
<td>Oucher score</td>
<td>12</td>
<td>15</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Child facial coding system</td>
<td>14</td>
<td>38.5</td>
<td>&lt;0.01</td>
</tr>
</tbody>
</table>
ACKNOWLEDGEMENTS

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References


ARCHIVIST

Tailoring treatment for retinoblastoma

Primary chemotherapy is more effective in retinoblastoma tumours in the macula and if children are over 2 months old, according to a study by at the Ocular Oncology Service at St Bartholomew’s and Moorfields Hospitals, London, UK.

Noting that primary chemotherapy produced varying outcomes in their patients, Gombos et al examined individual tumour features—basal size and location, previously rather overlooked—and patient age at diagnosis to see whether they predicted outcome. Their retrospective review was confined to 36 children receiving chemotherapy alone and followed up for one year minimum (range 12–44 months). Half were boys, 10 had familial retinoblastoma, and eight sporadic retinoblastoma. Within 42 eyes were 78 tumour foci: 31 (40%) in the macula, 38 (50%) in the equatorial region, and eight (10%) in the anterior ora region; 56 (72%) responded to chemotherapy alone; 22 (28%) needed other treatment.

Chemotherapy was most successful for macular tumours, tumours >2 mm across, sporadic tumours, and for children over 2 years at diagnosis, logistic regression showed. This was true for macular tumours when age—a confounder linked with tumour size and inheritance—was accounted for. Further analysis confirmed age >2 months and macular site as independently linked to favourable treatment outcome, but the relation with tumour size was less clear.

These insights allow treatment to be better tailored at diagnosis. Macular foci probably do not need adjuvant thermotherapy; tumours <2 mm across demand careful regular checks. In view of the small numbers, poor outcome in very young children deserves further study.

Rapid painless diagnosis of viral respiratory infection

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