Letters to the Editor

References


Sir,

Mupirocin susceptibility in vitro and nasal eradication of epidemic methicillin-resistant Staphylococcus aureus

In order to investigate the therapeutic efficacy of mupirocin we studied its activity in an outbreak of nosocomial infection due to methicillin-resistant Staphylococcus aureus (MRSA) in our hospital.

Nasal carriers of MRSA were treated with calcium mupirocin nasal ointment 2% 8-hourly for seven days. From April 1990 until June 1992, MRSA isolates (nasal and/or cutaneous and/or pharyngeal) were obtained from 694 patients. Sixty-eight patients were colonized by MRSA with a MIC > 4 mg l⁻¹ of mupirocin. Of these, 75% had been colonized previously by susceptible strains. The MICs of these low-level mupirocin resistant strains ranged from 8 to 16 mg l⁻¹, and those of susceptible strains from 0.06 to 0.25 mg l⁻¹.
The mupirocin-resistant isolates were found in the intensive care unit and in three of the four hospital wards where MRSA carriers were isolated.

We assessed the efficacy of mupirocin nasal treatment in bacterial eradication from this site, in patients colonized at multiple sites. Eradication was defined as negative nasal swabs taken at weekly intervals for three weeks after treatment. Table I compares nasal eradication in patients colonized in the nose alone with those colonized at multiple sites by strains with low-level mupirocin resistance.

Although the difference in failure rates was not statistically significant, probably due to the small sample size, these data seem to indicate that colonization at multiple sites is clinically more important in failure of topical nasal treatment than low-level mupirocin resistance.

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Table I. Response to mupirocin by resistant MRSA strains: comparison of response between patients colonized in nose alone with those colonized at multiple sites.

<table>
<thead>
<tr>
<th></th>
<th>Nose alone</th>
<th>Multiple sites</th>
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<tbody>
<tr>
<td>Eradication</td>
<td>12 (92%)</td>
<td>14 (61%)</td>
</tr>
<tr>
<td>Persistence</td>
<td>1</td>
<td>9</td>
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<tr>
<td>Total</td>
<td>13</td>
<td>23</td>
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Fisher's exact test $P = 0.059$.

References