Absorbable sutures in paediatric lacerations

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Abstract
A short cut review was carried out to establish whether absorbable sutures offered any benefits over non-absorbable sutures in the treatment of childhood facial lacerations. A total of 31 papers were found, of which one presented the best evidence to answer the clinical question. The author, date and country of publication, patient group studied, study type, relevant outcomes, results, and study weaknesses of this best paper are tabulated. We conclude that absorbable sutures appear to be as good as and show a trend towards benefit in the treatment of paediatric lacerations.

Three part question
In [paediatric patients with traumatic lacerations], does [the use of absorbable sutures compared with non-absorbable sutures] [increase the rates of complications and long term cosmetic]?"
Absorbable sutures appear to be as good as, and show a trend towards benefit, in paediatric laceration.

**Comment(s)**
The use of absorbable sutures in children has the benefit of avoiding the emotional and physical trauma and cost of suture removal. The only prospective randomised controlled trial showed no difference between absorbable sutures and non-absorbable sutures in the rate of complications as well as cosmesis. However, too many patients were lost to long term follow up.

**CLINICAL BOTTOM LINE**
Absorbable sutures appear to be as good as, and show a trend towards benefit, in paediatric laceration.

**Smeectite for acute diarrhoea in children**

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**Abstract**
A short cut review was carried out to establish whether smectite was a useful therapy in acute diarrhoea. A total of 21 papers were found of which five presented the best evidence to answer the clinical question. The author, date and country of publication, patient group studied, study type, relevant outcomes, results, and study weaknesses of these best papers are tabulated. The clinical bottom line is that oral smectite appears to be effective at shortening the duration of the diarrhoea in children with acute diarrhoea rehydrated with oral rehydration solution.

**Three part question**
In [children with acute diarrhoea] is [the use of smectite with oral rehydration solution better than oral rehydration solution alone] at [shortening the duration of diarrhoea]?

**Clinical scenario**
A 12 month old boy with acute diarrhoea is brought to the emergency department by his parents. He tolerates oral rehydration solution well but his parents still worry very much about his frequent loose stools. You wonder if the use of smectite would provide any additional benefit.

**Search strategy**
Medline 1966–August 2005, Embase 1966–August 2005:
{((dioctahedral$ OR smect*)$ AND (exp diarrhoea OR exp gastroenteritis OR diarrh$))$ LIMIT to human AND English} Embase: {((dioctahedral$ OR smect*)$ AND (‘diarrhoea’/exp OR ‘gastroenteritis’/exp OR diarrh*))$ LIMIT to human AND English; Cochrane Library: [smectite]}

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**Table 3**

<table>
<thead>
<tr>
<th>Author, date, and country</th>
<th>Patient group</th>
<th>Study type (level of evidence)</th>
<th>Outcomes</th>
<th>Key results</th>
<th>Study weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karounis H, et al, 2004, USA</td>
<td>Paediatric patients with traumatic lacerations</td>
<td>Prospective, randomised, controlled trial</td>
<td>Short term cosmesis (as measured with percentage of patients with optimal wound score on 6-point scale)</td>
<td>Better for absorbable but not statistically significant (63% v 49%); RR 0.73, 95% CI 0.45 to 1.17</td>
<td>34% of patients were lost to follow up.</td>
</tr>
</tbody>
</table>

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**Table 4**

<table>
<thead>
<tr>
<th>Author, date, and country</th>
<th>Patient group</th>
<th>Study type (level of evidence)</th>
<th>Outcomes</th>
<th>Key results</th>
<th>Study weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vivatvakin B, et al, 1992, Thailand</td>
<td>62 patients (age 1–24 months) with acute diarrhoea randomised to DS-ORS or ORS</td>
<td>Prospective randomised controlled trial</td>
<td>Duration of diarrhoea (hours)</td>
<td>Significantly shorter duration of diarrhoea in the DS-ORS group (43.3 (25.1) v 84.7 (48.5), p = 0.005)</td>
<td>Small number of patients; unclear randomisation; no blinding</td>
</tr>
<tr>
<td>Madkour AA, et al, 1993, Egypt</td>
<td>90 boys (age 3–24 months) with acute diarrhoea randomised to DS-ORS or ORS</td>
<td>Prospective randomised controlled trial</td>
<td>Duration of diarrhoea (hours)</td>
<td>Significantly shorter duration of diarrhoea in the DS-ORS group (54.1 (2.35) v 72.9 (1.98), p &lt; 0.001)</td>
<td>Small number of patients</td>
</tr>
<tr>
<td>Lexomboon U, et al, 1994, Thailand</td>
<td>66 patients (age 1–24 months) with acute diarrhoea randomised to DS-ORS or ORS</td>
<td>Prospective randomised controlled trial</td>
<td>Total number of diarrhoeal stools</td>
<td>Significant smaller number of total diarrhoeal stools in the DS-ORS group (11.3 (0.48) v 13.8 (0.45), p = 0.001)</td>
<td>Small number of patients; unclear randomisation; no blinding</td>
</tr>
<tr>
<td>Guarino A, et al, 2001, Italy</td>
<td>804 patients (age 3 months–5 years) with acute diarrhoea randomised to DS-ORS or ORS</td>
<td>Prospective randomised controlled trial</td>
<td>Cure rate at 72 hours</td>
<td>Significantly higher cure rate in the DS-ORS group at 72 hours after the treatment (71% v 34%, p &lt; 0.01)</td>
<td>Small number of patients; unclear randomisation; no blinding</td>
</tr>
<tr>
<td>Narkeviciute I, et al, 2002, Lithuania</td>
<td>54 patients (age 6–48 months) with acute diarrhoea randomised to DS-ORS or ORS</td>
<td>Prospective randomised controlled trial</td>
<td>Duration of diarrhoea (hours)</td>
<td>Significantly shorter duration of diarrhoea in the DS-ORS group (96 (21) v 119 (23), p &lt; 0.001)</td>
<td>Incomparable baseline data; no intention to treat analysis; no blinding</td>
</tr>
<tr>
<td></td>
<td>804 patients (age 3 months–5 years) with acute diarrhoea randomised to DS-ORS or ORS</td>
<td>Prospective randomised controlled trial</td>
<td>Duration of diarrhoea (hours)</td>
<td>Significantly shorter duration of diarrhoea in the DS-ORS group (42.3 (24.7) v 61.8 (33.9), p = 0.019)</td>
<td>Small number of patients; randomisation by birthday; no blinding</td>
</tr>
</tbody>
</table>

DS, dioctahedral smectite; ORS, oral rehydration solution.