Wound dehiscence after posterior sagittal anorectal plasty (PSARP)

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Aims:
• Assess the frequency of wound dehiscence after PSARP.
• Identify contributing factors to wound dehiscence after single-stage PSARP.

Conclusions:
• 31 % had wound dehiscence.
• A divided colostomy protected against wound dehiscence.
• No risk factor for wound dehiscence for single-stage PSARP was identified.

Methods:
• Retrospective study of all children with anorectal malformations (ARM) reconstructed with PSARP at a tertiary centre of paediatric surgery between 2001–2016.
• Wound dehiscence within 30 days postoperatively was analysed in univariate and multivariate regression models with regard to gender, prematurity, birth weight, type of ARM, other congenital malformations, single- or multi-staged reconstruction, age and weight at reconstruction, postoperative antibiotics, and postoperative fasting.

Main results:
• 90 patients were included, 53 (59%) were males.
• Single-stage PSARP was performed in 40 (44%) patients (38 perineal, 1 recto-vestibular, 1 recto-urethral).
• 50 (56%) patients had a multi-stage reconstruction with a divided colostomy (3 perineal, 14 recto-vestibular, 19 recto-urethral, 4 recto-vesical, 4 cloacas and 6 no fistulas).
• Wound dehiscence was significantly more common among patients without a colostomy; 17 (43%) vs 11 (22%) (p=0.043).
• In patients with single-stage PSARP no single factor was identified to increase the risk for wound dehiscence.

Risk factors for wound dehiscence in 40 patients with single-stage PSARP

<table>
<thead>
<tr>
<th></th>
<th>Single-stage PSARP (n=40)</th>
<th>Wound dehiscence (n=17)</th>
<th>OR (95% CI)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender female</td>
<td>18 (45)</td>
<td>6 (35)</td>
<td>0.50 (0.14–1.81)</td>
<td>0.348</td>
</tr>
<tr>
<td>Cardiac malformation</td>
<td>10 (25)</td>
<td>7 (41)</td>
<td>3.73 (0.78–17.88)</td>
<td>0.066</td>
</tr>
<tr>
<td>Weight at surgery &lt;3500g</td>
<td>15 (38)</td>
<td>5 (29)</td>
<td>1.56 (0.36–6.69)</td>
<td>0.716</td>
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<tr>
<td>Antibiotics &lt;1 day</td>
<td>26 (65)</td>
<td>10 (59)</td>
<td>1.60 (0.43–5.94)</td>
<td>0.521</td>
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<tr>
<td>Fasting 0–3 days</td>
<td>34 (85)</td>
<td>16 (94)</td>
<td>4.44 (0.47–42.18)</td>
<td>0.216</td>
</tr>
</tbody>
</table>

Values presented as the absolute number and percentage of patients, n (%); PSARP: posterior sagittal anorectal plasty; OR: odds ratio, CI: confidence interval

Ethically approved. No disclosures.

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