The use of continuous infusions of subcutaneous terbutaline in adult patients with cystic fibrosis

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Background: The use of continuous subcutaneous infusions of terbutaline (CSIT) can be useful in treating bronchospasm [1] but there are no studies looking at its use in adult CF, where many patients can develop this complication during a pulmonary exacerbation. We frequently use CSIT for this purpose, and wished to assess its tolerability.

Method: We asked 24 patients their views on CSIT following its use during an inpatient stay.

Results: There were 93 prescriptions of CSIT over 16 months, over 70% commenced within 72h of admission. Median dose was 5mg/24h (range 2.5–10); mean duration of therapy was 11 days (2–36). Most patients felt that CSIT was useful (17/24), not uncomfortable (20/24) and helped them to improve more quickly (14/24). Those who had also experienced intravenous aminophylline rated CSIT more effective (10/16) with only 2/16 considering it to cause more side-effects; all patients appreciated the greater mobility afforded by CSIT. Tremor (11/24), palpitations (3/24) and headache (2/24) were the most frequent side-effects but were only considered severe by 2 patients. Adverse effects necessitating dose reduction were uncommon (5/93) and all such cases tolerated the lower dose.

Conclusions: Our findings suggest that CSIT is well tolerated and preferred to intravenous aminophylline by CF patients, with less side-effects and less impact on mobility. We encourage other centres to consider it as an adjunct to therapy.

Reference(s)

Experience with a new totally implantable venous access device

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Background: Totally implantable venous access devices (TIVADs) have revolutionised the delivery of IV therapy in CF, but they have a significant long term complication rate (line infection/obstruction) of up to 54% [1], necessitating port removal and delaying treatment. New TIVAD chamber designs aim to reduce these complications by streamlining outlets and maximising flow, and we wished to assess their efficacy in reducing complications in our existing TIVAD population over the preceding 18 months.

Method: We compared the complication rate using such a new TIVAD design (VortexLP [Angiodynamics \(^\text{\textregistered}\), Cambridge, UK]) in 20 patients over a 22 month period with that in our existing TIVAD population over the preceding 18 months.

Results: See the table.

Table: Comparison of complication rates

<table>
<thead>
<tr>
<th>Line infection</th>
<th>Occlusion/Thrombosis</th>
<th>Phenomenon</th>
<th>Mechanical problem</th>
<th>Complication rate (per port month)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old system (76 pts over 18 months)</td>
<td>7</td>
<td>13</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>New system (20 pts over 22 months)</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Conclusions: The complication rate using this new TIVAD design seems to be less than with previous devices. We encourage other centres to consider the use of Vortex TIVADs which has helped us to further decrease our complication rate.

Reference(s)