Heart Failure

THE RISK OF CLOSTRIDIUM DIFFICILE IN HEART TRANSPLANT PATIENTS ON DIFFERENT IMMUNOSUPPRESSION REGIMENS

Poster Contributions
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Background: Clostridium Difficile is a common complication after heart transplant (ht tx) especially in those patients (pts) receiving prophylactic antibiotics. It has not been demonstrated if a specific immunosuppression regimen leads to more development of C.Difficile after ht tx. Therefore, we evaluated our ht tx pts and divided them into pts who were on induction therapy vs no induction and further divided those into TAC/MMF vs CSA/MMF.

Methods: Between 2000 and 2010, we evaluated 580 ht tx pts and reviewed them for development of 1st year C. Difficile. Pts were divided into those that received induction therapy (anti-thymocyte gamma globulin) and those did not receive induction therapy. Pts were also divided into those that received CSA/MMF and TAC/MMF.

Results: Induction was at significant risk for the development of 1st year C. Difficile (6% vs 1%, p=0.001) which was seen in those pts also receiving TAC/MMF. There was a trend for more 1st year C. Difficile in the TAC/MMF vs CSA/MMF groups in the induction group (8% vs 3%, p=0.082), but was not seen in the non-induction group (see table). The average length of time of C. Difficile infection in the induction vs non-induction groups was similar (8 ± 5 vs 7 ± 3 days, p=0.779).

Conclusion: Risk for C. Difficile appears to be greater in pts who have received ATG induction particularly if they have received TAC/MMF immunosuppression. In those pts receiving ATG induction with TAC/MMF, close monitoring for C. Difficile is warranted.

<table>
<thead>
<tr>
<th>Development of C. Difficile in the 1st Year</th>
<th>All Patients</th>
<th>CSA/MMF Group</th>
<th>TAC/MMF Group</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Induction</td>
<td>20/318 (6%)</td>
<td>3/104 (3%)</td>
<td>17/214 (8%)</td>
<td>0.082</td>
</tr>
<tr>
<td>Non-Induction</td>
<td>2/236 (1%)</td>
<td>0/49 (0%)</td>
<td>2/187 (1%)</td>
<td>0.469</td>
</tr>
<tr>
<td>p-value</td>
<td>0.001</td>
<td>0.233</td>
<td>0.001</td>
<td></td>
</tr>
</tbody>
</table>