Outcomes in a cohort of patients with Stage I twin-to-twin transfusion syndrome (TTTS)

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Objective
To determine pregnancy outcomes of patients who present with Stage I twin-to-twin transfusion syndrome (TTTS).

Methodology

Study design: Retrospective observational study

Duration of study: April 2007 to December 2016

Place of study:
Apollo Centre for Fetal Medicine, Indraprastha Apollo Hospitals, New Delhi and Bangalore Fetal Medicine Centre, Bangalore, India

Inclusion criteria:
All monochorionic twins presenting with Stage I TTTS

Exclusion criteria:
• TTTS Stage II and/or above at presentation
• Monochorionic twins with structural or chromosomal abnormalities

Monochorionic TWINS with TTTS
Quintero Staging

2 Weekly Followup till Outcome
Stage 1 included in Study

MCDA twins with stage I TTTS

N = 34

2 (5.9%) had spontaneous miscarriage
7 (20.6%) progressed to stage II or beyond
23 (67.6%) remained stable at stage I
6 underwent Laser (1 had IUFD just prior to planned Laser)

Details of patients at Apollo who required required intervention due to progression in stage 1 of TTTS

<table>
<thead>
<tr>
<th>Case 1</th>
<th>Case 2</th>
<th>Case 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>GA at diagnosis of TTTS (weeks)</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>CHOP score at presentation</td>
<td>Recipient 0 Donor 0</td>
<td>Recipient 0 Donor 0</td>
</tr>
<tr>
<td>GA at worsening of stage &amp; fetal treatment</td>
<td>24</td>
<td>22*1</td>
</tr>
<tr>
<td>Procedure</td>
<td>Laser Ablation</td>
<td>Laser Ablation</td>
</tr>
<tr>
<td>GA at delivery (weeks <strong>+6)</strong></td>
<td>31**3</td>
<td>33</td>
</tr>
<tr>
<td>Indication</td>
<td>sFGR, impaired dopplers</td>
<td>PTL</td>
</tr>
<tr>
<td>Birth weight (gm)</td>
<td>2100, 1700 (A&amp;W)</td>
<td>1800, 1200 (A&amp;W)</td>
</tr>
</tbody>
</table>

Conclusion
Numbers are too small for analysis
Expectant management is a better option in Stage 1 TTTS (32% showed progression)

Expectantly managed (n=23)
Laser (n = 6)

| Mean GA at diagnosis (weeks) | 23 weeks |
| Mean GA at delivery (weeks) | 33.6 | 31.7 |
| Mean birth weight | 1839 | 1623 |
| Complications | Preterm delivery | PPROM, Abruption |
| Twin live birth rate | 100% | 66.7% (8/12) |

References
2. Randomised Controlled Trial comparing a conservative management and Laser Surgery (TTTS1). ClinicalTrials.gov Identifier NCT01 220011