ASSOCIATION BETWEEN LEG LENGTH DISCREPANCY AND POSTERIOR TIBIAL TENDON DYSFUNCTION

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My disclosure is in the Final AOFAS Program Book.
I have no potential conflicts with this presentation.
POSTERIOR TIBIALIS TENDON DISFUNCTION

• all risk factors are systemic (hypertension, diabetes, obesity, vasculopathy...)

• why only 10% are bilateral?

• is limb length inequality involved?
Study Purpose: To compare the frequency and magnitude of LLD between subjects with and without PTTD.

Study design: Case-control study.
Flow chart of study participants

146
- Number of patients (Inicial sample)

-7
- declined to participate

-5
- lost to follow-up

-5
- underwent total knee replacement

-4
- did not bring informed consent form or scanograms

-3
- femur fractures

-2
- underwent total hip replacement

-2
- DTTP due to trauma

= 118
- final sample

118
- control group
Values found:

- absolute limb length discrepancy
  - difference in mm between lower members

- relative limb length discrepancy
  - percentage of difference found over the length of the longest lower member (percentage necessary to equate legs)
Subject profiles in the case and control groups

<table>
<thead>
<tr>
<th></th>
<th>Cases</th>
<th>Controls</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean age</td>
<td>62</td>
<td>49</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Sex: male/female</td>
<td>15/103</td>
<td>17/101</td>
<td></td>
</tr>
<tr>
<td>Skin color: white/black</td>
<td>114/4</td>
<td>114/4</td>
<td></td>
</tr>
<tr>
<td>No. cases with LLD zero</td>
<td>6</td>
<td>24</td>
<td>&lt; 0.001*</td>
</tr>
<tr>
<td>Mean absolute LLD</td>
<td>5.64</td>
<td>3.28</td>
<td>&lt; 0.001**</td>
</tr>
<tr>
<td>Means relative LLD</td>
<td>7.36</td>
<td>4.18</td>
<td>&lt; 0.001**</td>
</tr>
</tbody>
</table>

* teste qui-quadrado
** teste U Mann-Whitney
Prevalence of LLD, stratified by relative discrepancy (%), in the case and control groups.

**Table:**

<table>
<thead>
<tr>
<th>LLD (%)</th>
<th>0</th>
<th>≤5%</th>
<th>5–10%</th>
<th>10–20%</th>
<th>20–25%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Case group</strong></td>
<td>6</td>
<td>35</td>
<td>49</td>
<td>23</td>
<td>5</td>
</tr>
<tr>
<td><strong>Control group</strong></td>
<td>24</td>
<td>55</td>
<td>28</td>
<td>11</td>
<td>0</td>
</tr>
</tbody>
</table>
Conclusion

• The present study showed that LLD is more prevalent and more severe in patients with PTTD.

• This study showed a positive association between limb length inequality and PTTD.
References


