Prevalence of symptoms among the young male adults with flatfoot deformities

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Our disclosures are in the Final AOFAS Program Book.
We have no potential conflicts with this presentation.
Introduction

• There were no modern systemic studies on quantifying the symptoms of adult flatfoot.
• The Taiwanese conscripts with flatfoot deformities are required to take the weight-bearing true lateral radiographs of their feet.
• With this cohort, we estimated the prevalence of symptoms among the conscripts with flatfoot and studied the relationship between the symptoms and the corresponding deformities on the radiographs.
Material and Methods (1)

• From January 1 2003 to December 31 2005, all the conscripts with foot problems at our hospital were included.

• A total of 525 conscripts took the weight-bearing true lateral radiographs of their feet.
Material and Methods (2)

- The talometataral angles, calcaneal-5th metatarsal angles, and calcaneal pitch angles were measured on the PACS system.
- We telephone-interviewed these conscripts about their feet symptoms, and recorded the subjective components of the American Orthopaedic Foot and Ankle Society (AOFAS) midfoot and ankle-hindfoot score.
Results (1)

- A total of 172 conscripts were reached via telephone and 168 questionnaires were completed.
- The mean age and body mass index were 23.32 years and 24.04 kg/m², respectively.
Results (2)

- Eighty-two conscripts scored prefect on the subjective components of the AOFAS midfoot and ankle-hindfoot score (51.9%).
- There were no correlations among body mass indices, AOFAS midfoot scores, calcaneal-5th metatarsal angles, talometatarsal angles, and calcaneal pitch angles.
## Symptomatic versus Asymptomatic

<table>
<thead>
<tr>
<th>Ankle-Hindfoot Score Comparison (Mann-Whitney U test)</th>
<th>Z value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body Mass Index</td>
<td>-0.023</td>
<td>0.982</td>
</tr>
<tr>
<td>Right calcaneal-5th metatarsal angle</td>
<td>-1.499</td>
<td>0.134</td>
</tr>
<tr>
<td>Left calcaneal-5th metatarsal angle</td>
<td>-2.638</td>
<td><strong>0.008</strong></td>
</tr>
<tr>
<td>Right talometatarsal angle</td>
<td>-1.886</td>
<td>0.059</td>
</tr>
<tr>
<td>Left talometatarsal angle</td>
<td>-1.677</td>
<td>0.093</td>
</tr>
<tr>
<td>Right calcaneal pitch</td>
<td>1.435</td>
<td>0.151</td>
</tr>
<tr>
<td>Left calcaneal pitch</td>
<td>2.539</td>
<td><strong>0.011</strong></td>
</tr>
</tbody>
</table>
Conclusion

• Not all young male adults with flatfoot deformities had significant symptoms.
• The correlation between symptoms and deformities on the lateral radiographs was not high.
References