Patient Case Study #5

Patient Medical History

• 41-year-old sedentary male
• No comorbidities
• No current Rx regimen

Initial Digital Vascular Biomarker Assessment

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brachial Blood Pressure</td>
<td>144/64 mmHg</td>
</tr>
<tr>
<td>Central Systolic Blood Pressure</td>
<td>109 mmHg</td>
</tr>
<tr>
<td>Central Pulse Pressure Amplitude</td>
<td>77%</td>
</tr>
</tbody>
</table>

Initial Assessment Interpretation

This male patient’s substantial pulse pressure amplification (brachial 78 mmHg/central 44 mmHg; 77%) and the central systolic BP < 124 mmHg argues against drug therapy. An exercise regimen was recommended and followed.

Figure 6. Central Pressure Waveform

BBP indicates brachial blood pressure systolic/diastolic; CBP, central blood pressure systolic/diastolic; CPP, central pulse pressure; Alx, augmentation index; HR, heart rate; bpm, beats per minute.
Follow up Digital Vascular Biomarker Assessment

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Brachial Blood Pressure</td>
<td>124/62 mmHg</td>
</tr>
<tr>
<td>Central Systolic Blood Pressure</td>
<td>99 mmHg</td>
</tr>
<tr>
<td>Central Pulse Pressure Amplification</td>
<td>68%</td>
</tr>
</tbody>
</table>

Follow up Assessment Interpretation

Following a three month exercise regimen, this male patient shows brachial systolic pressure improvement and continued substantial pulse pressure amplification (brachial 62mmHg/central 37mmHg; 68%). No additional pharmacologic therapies were prescribed and he was encouraged to continue the exercise program.

This clinical case study supports two important clinical decisions. One was not to pharmacologically treat a modest brachial systolic pressure elevation. The other was to support the value of exercise, which improved the patient’s brachial blood pressure without loss of the advantageous central pressure profile.

DOI: 10.1111/jch.12574
http://bit.ly/2qclmd1

**Figure 7.** Central Pressure Waveform

- BBP = 124/62 mmHg
- CBP = 99/62 mmHg
- CPP = 37 mmHg
- PPA = 68%
- AIx = 0
- HR = 60 bpm

Contact us: info@atcormedical.com or +1 (630) 228-8871  www.atcormedical.com