72-Year-Old Male with Very Stiff Arteries and at High Risk

Digital Vascular Biomarker Assessment

Brachial Blood Pressure	135/59 mmHg
Central Systolic Pressure	124 mmHg
Central Pulse Pressure	64 mmHg
Augmentation Index	43%

Interpretation

Pulse wave analysis on this male patient reveals very stiff arteries resulting in significant pressure wave reflection and left ventricle afterload. This patient also has a central pulse pressure (cPP) biomarker well above the threshold risk level of 50 mmHg,*that translates to a 20% increase in event rates in this population at 5 years. This is equivalent to the event rate at 10 years for the high-risk classification under the Framingham risk score. Vasodilating medications (ACEi, ARB, CCB, vasoactive BB) may be efficacious in reducing the effects of early wave reflections. In such patients, more aggressive therapy to relax the vasculature and reduce central pulse pressure is recommended.

Figure 1. Central Aortic Clinical Parameters

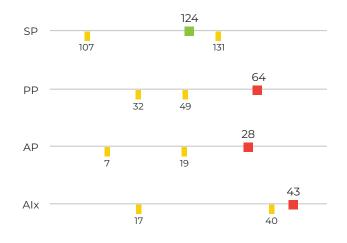
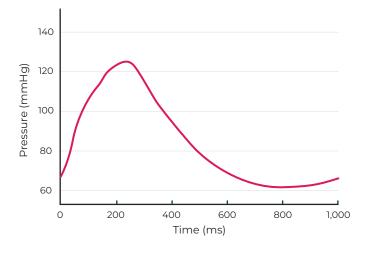


Figure 1b. Average Central Aortic Waveform



^{*}Roman et al. Hypertension. 2007;50:197-203