

Index of ankle pressures

BEZOBSAHU **Ankle brachial pressure index** ABPI, ankle brachial pressure index, ABPI, Doppler index, DI) is a non-invasive diagnostic method providing information on the ratio of arterial pressures on the upper and lower extremities.

This is an easily performed examination for the detection of asymptomatic atherosclerosis. The sensitivity and specificity of the examination is about 80%, the most reliable for ICHDK . Reduced values predict further development of angina pectoris , MI , heart failure , ICHDK or CMP . False negative values are usually obtained in patients with diabetes mellitus or mediocalcinosis . For these patients, we choose other methods (e.g. thumb-arm index, toe-brachial index). [1] .

Calculation

We perform the actual calculation for both lower limbs separately. We divide the measured pressure on the lower limbs by the blood pressure value on the upper limbs (highest or highest average value)^[1].
ABI pomocí tužkové sondy ultrazvuku

$$ABI = \frac{TK_{\text{kotník}}}{TK_{\text{pače}}}$$

Calculator

MediaWiki:ABI index rating

Hodnocení indexu ABI	
mediocalcinosis	> 1.4
normal value	1-1.4
limit values	0.91-0.99
abnormal - DK ischemia	≤ 0.9

Measurement

Perfusion pressures are determined using a Doppler ultrasound examination or oscillometric measurement using the ABI system.

Doppler determination of ABI and oscillometric determination of ABI cannot be confused. **Oscillometric examination** overestimates low ABI values and underestimates high ABI values ^[2]. An oscillometric examination has a high negative predictive value^{[3][4][5]}, it is faster and its results do not depend on the experience of the examiner. It is therefore more suitable as **an ICHDK screening method** in primary care..

Discrepancies between results increase at ABI thresholds (especially in incompressible arteries with calcinosis). In these patients **Doppler measurement** of ankle pressure is the method of choice.

links

Související články

- Chronická ischemická choroba dolních končetin
- Ratschovův test

Zdroje

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Reference

- 1.
2. MUDR. PETR WOHLFAHRT, Ph.D. *Vztah mezi vlastnostmi tepen dolních končetin a aortální tuhostí a jejich vliv na kardiovaskulární riziko*. 2014. Dostupné také z: <https://is.cuni.cz/webapps/zzp/detail/148371/>. 1. lékařská fakulta (1.LF). Vedoucí práce Prof. MUDr. Renata Cífková, CSc.

3. Beckman JA, Higgins CO, Gerhard-Herman M. Automated oscillometric determination of the ankle-brachial index provides accuracy necessary for office practice. *Hypertension* 2006;47:35-8
4. Mehlsen J, Wiinberg N, Bruce C. Oscillometric blood pressure measurement: a simple method in screening for peripheral arterial disease. *Clin Physiol Funct Imaging* 2008;28:426-9.
5. MacDougall AM, Tandon V, Wilson MP, Wilson TW. Oscillometric measurement of ankle-brachial index. *Can J Cardiol* 2008;24:49-51

Kategorie:Kardiologie Kategorie:Angiologie Kategorie:Vnitřní lékařství