

Is the ankle brachial index a useful tool for assessing appropriateness?

 Domagoj Mišković^{1,2,*},
 Krešimir Gabaldo^{1,2},
 Katica Cvitkušić
Lukenda^{1,2},
 Blaženka Miškić^{1,2},
 Tomislav Krčmar^{3,4},

¹General Hospital "Dr. Josip Benčević" Slavonski Brod, Croatia

²Josip Juraj Strossmayer University of Osijek, Faculty of Dental Medicine and Health Osijek, Osijek, Croatia

³University Hospital Centre Zagreb, Zagreb, Croatia

⁴University of Rijeka, Faculty of Medicine, Rijeka, Croatia

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***ADDRESS FOR CORRESPONDENCE:** Domagoj Mišković, Opća bolnica "Dr. Josip Benčević", Andrije Štampara 42, HR-35000 Slavonski Brod, Croatia. / Phone: +385-98-760-767 / E-mail: domagoj1304@gmail.com

ORCID: Domagoj Mišković, <https://orcid.org/0000-0003-4600-0498> • Krešimir Gabaldo, <https://orcid.org/0000-0002-0116-5929>
Katica Cvitkušić Lukenda, <https://orcid.org/0000-0001-6188-0708> • Blaženka Miškić, <https://orcid.org/0000-0001-6568-3306>
Tomislav Krčmar, <https://orcid.org/0000-0003-4689-1673>

Introduction: In 1950, the American physician Travis Winsor was the first to report connection between peripheral arterial disease of the lower extremities with a systolic pressure in the ankle¹. Today, ABI (ankle brachial index) is the first line of non-invasive diagnostics for the screening and diagnosis of peripheral arterial disease of the lower extremities². However, the indication for endovascular treatment is based on the patient's symptoms and the anatomical characteristics and localization of the lesions.

Case report: 58-year-old male patient with previously known coronary artery disease, arterial hypertension, and diabetes was in outpatient follow-up with due to symptoms of lumbosacral radiculopathy. On CT scan in 5/2021 L2-S1 disc bulging was described and in 6/2021, the patient underwent L4-L5 laminectomy. Electromyoneurography of the legs showed L3-S1 radiculopathy and diabetic polyneuropathy. In 3/2022, he underwent an ultrasound scan where 50% calcified stenosis of the right common femoral (CFA) artery and 75% stenosis of the distal segment of the left superficial femoral artery (SFA) was verified. At the vascular surgery outpatient office, he reported a walking distance of 200 meters. He was recommended an ABI, CT angiography of the lower extremities and exercise therapy. In 5/2022, the right ABI was 0.96 and the left 0.75. At the next control, the walking distance was still 200 meters, and the left ABI was 0.66. The decision of the multidisciplinary team was to perform percutaneous transluminal angioplasty of the left SFA. The intervention was done by right femoral approach, after which crossover was performed in the left CFA and DCB (drug-coated balloon) was applied to the lesion in the left SFA. The control ABI after the intervention was 0.93 on the left, with no change in the ABI on the right. At the follow-up after 3 months, the patient had a walking distance of more than 200 m with an ABI index equal to the post-intervention.

Conclusion: ABI can be a useful tool for appropriateness, especially in atypical and unclear clinical conditions. It is also an important tool for follow up after endovascular interventions³.

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LITERATURE

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