

# Taking blood pressure in both arms - a diagnostic necessity or a time luxury?

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**Context** Recommendations of international societies as well as the Standard Diagnostic and Therapeutic Procedures for Arterial Hypertension in Slovakia explicitly **recommend measuring blood pressure in both upper extremities**. A value of pressure difference higher than 10 mmHg is considered prognostically unfavorable in determination of cardiovascular risk. The symptomatic upper extremity peripheral artery disease is poorly studied compared with the lower extremity.

**Methods** We describe the **case of an 87-year-old woman**. The case is an example of the longstanding ignoring of the recommendation regarding measuring blood pressure in both arms.



CT Angiography Aortic arch and epiaortic vessels, occlusion of right the subclavian artery at the origin with heavy calcified plaques (yellow arrow)

**Originality** Patient with arterial hypertension, dementia, and adenocarcinoma of the uterus was repeatedly hospitalized for collapses in the last 10 years. The patient was a **hairedresser**. Her work was also her hobby and she practically until nowadays does hairstyles for her friends and neighbors.

The pain of the right arm, which she reported during the last years both in the outpatient clinic and during numerous hospitalizations, was therefore quite logically attributed to right omarthrosis. During last hospitalization in the long-term care department was it found that **the pressure difference between the right and left arm was 40 mmHg**. Color duplex sonography and CT angiography were performed. The examinations confirmed critical stenotization of the right subclavian artery with the presence of **subclavian steal syndrome**. Subsequently the vascular team attempted to patency the stenosed right subclavian artery, but the calcified lesion resisted. The patient was discharged to the nursing house.

**Lessons learned and future implications** In the discharge report, **the general practitioner was alerted to inter arm pressure difference, which he must consider in the management of arterial hypertension**. A follow-up examination is planned with consideration of further intervention

**Discussion** Health insurance companies in Slovakia reimburse preventive examinations every two years (blood donors every year). A self-evident part of the preventive examination should be measurement in both arms.

Similarly, during the first visit to the department or hospital, in case of difficulties - dizziness, headaches and shoulder pain, or collapses.

**Conclusion** This patient's story reminds us that the recommendation to blood pressure measure in both arms is worthy of our attention in the interest of our patients.