

## THORACIC OUTLET SYNDROME

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A 54-year-old woman with no known medical history presented for magnetic resonance imaging because of numbness and weakness in her left arm, especially when it was raised. These symptoms had persisted for 1 year. The only noteworthy clinical finding was that the Adson's maneuver resulted in a significant reduction in the left radial pulse.

In cases of suspected thoracic outlet syndrome, magnetic resonance angiography (MRA) can be used to assess the arterial system noninvasively without exposing the patient to ionizing radiation or potentially nephrotoxic contrast agents. Three-dimensional (3D) MRA was performed twice in this case (each time with 0.1 mmol/kg of a gadolinium chelate), and multiplanar

3D reformations were generated. The first image (left), obtained with the patient's left arm in the "superman" orientation, revealed a severe focal stenosis at the juncture of the proximal/mid-left subclavian artery (7 cm from the artery's takeoff; arrow). The second image (right), obtained with the patient's arm by her side, showed a normal left subclavian artery, suggesting that the stenosis noted in the first MRA as well as the numbness and weakness in the patient's arm was due to extrinsic compression. Subsequently, the patient was diagnosed with thoracic outlet syndrome.

**Keywords:** Adson maneuver; left subclavian artery; magnetic resonance angiography; thoracic outlet syndrome

