

Vascular obstruction

Vascular narrowing or **obstruction** reduces **blood flow** to the lower **limbs** during **exercise** or at **rest**. **Symptoms** may range from **intermittent claudication** to **pain** at rest. Narrowing of these arteries may produce pain in the **buttocks**, **thighs**, or **legs**. These symptoms may resemble those of **lumbar radicular pain**. **Spine surgeons** may overlook obstructive vascular lesions of the lower limbs in patients with **lumbar degenerative diseases** such as **spinal stenosis** and **spondylolisthesis**. Lee et al. from the Department of Neurosurgery, Leon Wiltse Memorial Hospital, Gyeonggi-Do, Anyang-si, Suwon, St. Mary's Hospital, The Catholic University, Seoul, the Republic of Korea investigated the clinical and radiologic risk factors of concomitant vascular pathologic lesions in patients with degenerative lumbar diseases.

If patients presented with a weak or absent dorsalis pedis artery pulse, edema of both legs, and a past history related to vascular lesions of the lower limbs, they evaluated the veins and arteries of the lower extremities using **Doppler sonography**. If abnormal vascular findings were detected, computed tomography angiography (CTA) of the lower extremities was performed. Radiologic and clinical risk factors of concomitant occlusive arterial lesions of the lower limb were analyzed by logistic regression analysis.

In 2013, 335 patients suspected of having vascular lesions underwent Doppler sonography. Among them, CTA of the lower extremities was performed in 58 patients. The mean age was 69.4 years (35 men and 23 women). Severe narrowing or total occlusion of the leg arteries was detected in 23 patients. Partial obstructive arterial disease of the legs was detected in 14 patients. Occlusion but with good collateral circulation of the leg was found in three patients. Surgical treatment plans were cancelled or changed in 28 patients. The risk factors for occlusive arterial lesions of the legs were an abnormal ankle-brachial pressure index (ABPI), absent dorsalis pedis artery pulse, and lack of response after a pain-blocking procedure.

If patients present with a weak or absent **dorsalis pedis artery** pulse, abnormal ABPI ratio, and no response after a pain-blocking procedure, the clinician should consider the possibility of severe arterial occlusion of the legs. They suggest that the **differential diagnosis** of obstructive arterial lesions of the legs from lumbar degenerative diseases is important to prevent unnecessary invasive surgical treatment of the lumbar spine ¹⁾.

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Lee DC, Heo DH, Cho KS. Concomitant Occlusive Vascular Lesions of Legs in Patients with Degenerative Lumbar Diseases: Do These Lesions Influence Treatment? J Neurol Surg A Cent Eur Neurosurg. 2018 Sep 17. doi: 10.1055/s-0038-1669474. [Epub ahead of print] PubMed PMID: 30223290.

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