A sharp rise in the diagnosis of dissection of extracranial brain supplying arteries as a cause of cerebral ischemia in young adults has been noted in the recent past due to increased and intensified clinical awareness as well as advanced technical options [1]. On the basis of 2 cases, we report on the diagnostic challenge to the clinician and the difficulties involved when using noninvasive imaging technologies such as extracranial duplexsonography (ECD) and magnetic resonance imaging (MRI).

Case 1
A 27-year-old female patient complained of diffuse headaches and a slight pain in the left cervical region after a cup board weight-
The MRI fat suppression technique is used to differentiate peri-arterial fat from the hyperintense intramural hematoma. Yet vertebral dissections can be missed by MRI due to the small diameter of the vertebral artery, its anatomical variations and the high signal intensity of the surrounding venous structures [9, 10]. Since most MRI scanners perform with 1.5 tesla, we cannot exclude that in the near future with routinely higher field strength of 3.0 tesla, MRI techniques will have an improved visualization of the intramural hematoma [11].

About 20% of the patients with spontaneous cervical artery dissection exhibit an isolated Horner’s syndrome [6, 12] and up to 66% of the patients show no ischemic signs on initial presentation [12]. In the days and weeks following the initial event, between 50 and 95% of the patients with a spontaneous dissection of the carotid artery will develop a complete ischemic stroke [12]. Therefore, a rapid diagnosis is essential.

In conclusion, clinical awareness and preciseness of clinical examination are required to initiate correct diagnostic investigations and to find the proper diagnosis. A combination of different methods may lead to a greater degree of diagnostic accuracy.

References


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