

Charcot-Bouchard aneurysm

Charcot-Bouchard [aneurysms](#) are minute aneurysms (microaneurysms) in the brain that occur in small penetrating blood vessels with a diameter that is less than 300 micrometers. The most common vessels involved are the lenticulostriate branches (LSA) of the middle cerebral artery (MCA). LSAs originate from the MCA just before its bifurcation, and they can vary between 2 to 12 in number (average 8.1). Most branches arise medially (99.2%), close to the internal carotid artery. They supply the basal ganglia, and more specifically, the putamen and caudate, followed by the thalamus, pons, and cerebellum.

Charcot-Bouchard aneurysms are named after the French physician Jean-Martin Charcot and his student Charles Joseph Bouchard. In the 19th century, Bouchard discovered these aneurysms during his research under Charcot. Cole and Yates strengthened Charcot and Bouchard's work by demonstrating that aneurysms truly exist using microangiographic techniques in the 1960s. However, it has been a topic of lively debate if it is, in fact, the rupture of these aneurysms that are responsible for the intracerebral bleeds.

Individuals with chronic systemic hypertension are at high risk of developing atrophy of the outer muscular layer. With the loss of integrity of the vessel wall, microaneurysms develop in LSA, which are at high risk of rupture. Bleeding of aneurysms into the deep structures of the brain parenchyma is also referred to as intraparenchymal hemorrhage or, more broadly, as intracerebral hemorrhage. Clinically the deficits that present can point towards the location of the bleed. The first line diagnostic modality for these patients is a non-contrast computed tomography (CT) of the head to visualize the bleed. Depending on the severity and location of the hemorrhage, the treatment options vary from observation to neurosurgical intervention ¹⁾

¹⁾

Gupta K, M Das J. Charcot-Bouchard Aneurysm. 2023 Jul 17. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. PMID: 31971704.

From:

<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:

https://neurosurgerywiki.com/wiki/doku.php?id=charcot-bouchard_aneurysm

Last update: **2024/06/07 02:59**

