Findings in animal studies, which are currently being tested for confirmation in humans, have found that naturally occurring variants of a novel “collateral gene”, Rabep2, result in large differences in the extent of anatomic collaterals and thus blood flow and infarct size in mice after stroke. The comprehension of collagerogenesis in humans and the evaluation of collateral status could aid in identifying patients who will benefit not only from mechanical thrombectomy in the extended time window, but also from any reperfusion strategy.

Piedade et al. performed a literature review focused on radiographic, clinical and genetic aspects of the collateral circulation [1)].

1)

Piedade GS, Schirmer CM, Goren O, Zhang H, Aghajanian A, Faber JE, Griessenauer CJ. Cerebral collateral circulation: A review in the context of ischemic stroke and mechanical thrombectomy. World Neurosurg. 2018 Oct 17. pii: S1878-8750(18)32363-5. doi: 10.1016/j.wneu.2018.10.066. [Epub ahead of print] Review. PubMed PMID: 30342266.