HIR can be easily assessed on automatically processed perfusion maps and predicts the rate of collateral flow, infarct growth, and clinical outcome [1].

Relative cerebral blood volume (rCBV) and hypoperfusion index ratio (HIR) may serve as markers of collateral circulation in acute ischemic stroke (AIS) patients prior to endovascular therapy [2].

1)
Olivot JM, Mlynash M, Inoue M, Marks MP, Wheeler HM, Kemp S, Straka M, Zaharchuk G, Bammer R, Lansberg MG, Albers GW; DEFUSE 2 Investigators. Hypoperfusion intensity ratio predicts infarct progression and functional outcome in the DEFUSE 2 Cohort. Stroke. 2014 Apr;45(4):1018-23. doi: 10.1161/STROKEAHA.113.003857. Epub 2014 Mar 4. Erratum in: Stroke. 2014 May;45(5):e92. PubMed PMID: 24595591; PubMed Central PMCID: PMC4047639.
2)
Arenillas JF, Cortijo E, García-Bermejo P, Levy EI, Jahan R, Goyal M, Saver JL, Albers GW. Relative cerebral blood volume is associated with collateral status and infarct growth in stroke patients in SWIFT PRIME. J Cereb Blood Flow Metab. 2017 Jan 1:271678×17740293. doi: 10.1177/0271678×17740293. [Epub ahead of print] PubMed PMID: 29135347.