What should be the optimal imaging to select patients for thrombectomey beyond 3 hours: Is CTA enough or should CTP be added?

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Until recently patients with Acute Ischemic Stroke (AIS) and Large Vessel Occlusion(LVO) in the anterior circulation were eligible for Endovascular Treatment (EVT) up to 6 hours from symptom onset (as defined last seen normal) of there stroke. The Current Trials DAWN and DEFUSE 3 lead to new guidelines and extend our ability to treat AIS patients with LVO up to 24 hours but with additional need to evaluate the infarct core by the use of CT Perfusion (CTP) or MRI Diffusion (MR-D). With these new guidelines CTP or MRI-D becomes a "Must" in assessing AIS patients to be eligible for EVT after 6 hours of stroke onset. CTP and MRI – D are in need of some basic cooperation of patients during performing the imaging and standardized analysis of CTP is not readily available in all comprehensive stroke centers. So some believe that the current approach of AIS patients with up to 6 hours symptom onset, with using CT head without contrast (using ASPECT to grade ischemic tissue) and CTA, is also enough to evaluate penumbra size and guide us in our decisions for patients over 6 hours. Besides of missing high quality data to proof such a new rudimentary approach of selecting patients, the use of CTP and MR-D has additional value in guiding us in our treatment decisions. CTP and MR-D are known to increase the sensitivity of identifying patients with AIS especially when trying to diagnose patients with uncommon symptoms or distal occlusions, that are sometimes missed when evaluating them CTA alone. This presentation intends to show the superiority of adding CTP or MR-D to a standard AIS neuroimage evaluation.