

## **The comparison of procedural characters and clinical outcome between Solitaire stent and Trevo stent in Endovascular treatment for acute ischemic stroke**

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Background: To compare the safety and effectiveness of two retrievable stent systems in EVT for AIS using Solitaire and Trevo. Methods: Patients were treated either with Trevo stent or Solitaire Stent according to the neurointerventionist preference. Recanalization was classified by TICI grade. Efficacy and safety during EVT were analyzed the rate of good recanalization after the first pass, clot retrieve rate, final recanalization grade, and use of rescue method, recanalization time, hemorrhagic complication and thromboembolic complication. Results: Seventy-nine patients were treated with Solitaire stent and 51 with the Trevo stent. Overall good recanalization (TICI 2b and 3) was achieved in 57 patients (72.2%) in the solitaire group and 46 (90.2%) of the Trevo group ( $P = 0.01$ ). The rate of good recanalization after the first pass, clot retrieve rate were not significant between two groups. However, use of rescue method was more frequent in Solitaire group. Good clinical outcome was higher in Trevo group, but not significant. The rate of symptomatic ICH and thromboembolism were not significantly different. Conclusions: Our study showed several superiorities of Trevo stent compared with the Solitaire stent in EVT. Trevo stent showed superiority to achieve more successful recanalization, less use of rescue method, less take a time for recanalization. Even though the clinical outcome was not different between two stentriever, we think that Trevo stent would be better stentriever in EVT.