

**Introduction**

Transradial access is frequently utilized in percutaneous coronary interventions and in recent years has increasingly been used as an alternative to transfemoral access for cerebrovascular interventions.<sup>1-12</sup> It is especially valuable in patients where transfemoral access has failed or is not feasible.<sup>13-15</sup> We present a single center, prospective analysis of patients who underwent mechanical thrombectomy for acute ischemic stroke via both transradial and transfemoral approaches.

**Methods**

Patients with anterior circulation LVO treated with thrombectomy between 2015 and 2016 were reviewed from our prospective database. Initial analysis of the 95 patients treated with femoral approach and 21 treated with radial approach demonstrated significant differences in patient and disease specific characteristics. Blinded to outcome, 20 patients treated with radial and 60 patients treated with femoral approaches were matched in a 1:3 fashion based on patient age, gender, and aortic arch tortuosity. Multivariate conditional (matched) analysis was used to test covariates predictive of the following dependent variables: time to reperfusion, revascularization (= TICI 2B), and unfavorable outcome (mRS > 3).

**Results**

Patients in the radial cohort were more likely to have significant carotid tortuosity. Access site was not predictive of revascularization (TICI2b-3) in multivariate analysis. Access site was also not predictive of time to reperfusion in multivariate analysis. M2 MCA location of the clot and tortuous anatomy were independent multivariate predictors of unfavorable outcome (mRS 4-6). Although patients in the radial cohort were significantly more likely to have tortuous anatomy, radial access site was not an independent predictor of unfavorable outcome.

**Conclusions**

Radial access site can be used to achieve similar outcomes for mechanical thrombectomy. This suggests that transradial access is a viable option for access in the treatment of acute ischemic stroke in patients with unfavorable vascular anatomy.

**Learning Objectives**

Transradial access can be a

**References**

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