Conclusion Despite relative high rate of complications, the majority of our patients had good outcome that is better than natural history of the high grade cerebral AVMs. Complete exclusion of high-grade cerebral AVM could be achieved by embolization in limited patients. Further studies are needed to define the optimal management for these complex AVMs.
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E-275 ENDOVASCULAR THERAPY FOR ACUTE STROKE WITH A LARGE ISCHEMIC REGION: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Introduction Endovascular treatment (EVT) replaced medical management (MM) alone in patients with small- to medium-sized infarct core secondary to occlusion of large vessels in the anterior circulation; however, its efficacy and safety for large core infarction is uncertain. In this meta-analysis, we aimed to investigate the efficacy and safety of EVT for patients with large core infarct.
Materials and Methods Three online databases of Web of Science, PubMed and Scopus were systematically searched. Original studies which evaluated participants with large core infarction who underwent EVT were included. R statistical software was used for statistical analyses. Effect sizes were presented with odds ratios (ORs) with their 95% confidence intervals (CIs). The effect sizes were pooled using random effects modeling.
Results Including 47 studies and 15173 patients, this meta-analysis showed that compared with MM, EVT was associated with decreased odds of mortality (0.67, 95% CI: 0.51-0.87) and increased odds of favorable outcomes, including a modified Rankin Scale of 0-3(2.36, 95% CI: 1.69 -3.291) and of 0-2 (3.54, 95% CI: 1.96-6.4) in 90 days and remarkable improvement in National Institutes of Health Stroke Scale within 48 hours after the procedure (3.6, 95% CI:1.32-9.79). Besides, there was a higher chance of intracranial hemorrhage development (1.88, 95% CI: 1.32-2.68) but not symptomatic hemorrhages (1.34, 95% CI: 0.78-2.31) in those who underwent EVT.
Conclusion Our study suggests that EVT might be an effective and relatively safe treatment option for the treatment of patients with large core infarcts, although more large-scale trials are needed to consolidate the results and to make inclusion criteria and the patient selection process clearer.
Disclosures A. Mowla: 2; C; Speakers Bureau/Consultant to Cerenovus, Stryker, Wallaby Medical, RapidAI , BALT USA, LLC.. 3; C; Speakers Bureau/Consultant to Cerenovus, Stryker, Wallaby Medical, RapidAI , BALT USA,LLC.. **S. Abdollahifard:** None. **E. Taherifard:** None. **A. Sadeghi:** None. **P. Rakhshandeh Hassan Kiadeh:** None. **O. Yousefi:** None.

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LB-001 CHRONIC SUBDURAL HEMATOMA TREATMENT WITH EMBOLIZATION VERSUS SURGERY STUDY (CHESS)

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Background Chronic subdural hematoma (cSDH) is one of the most common neurosurgical diseases with a significant financial burden. Current management includes observation for mild or asymptomatic patients and surgical drainage for moderate and severe patients. However, surgical drainage is associated with a 15% reoperation rate and a mortality of up to 10%. Middle meningeal artery embolization (MMAE) is a promising minimally invasive alternative with an estimated surgical recurrence rate of 6.8% and 4.6% for standalone MMAE and combined MMAE and surgery respectively. However, randomized data is lacking for this emerging therapy.
Methods CHESS is a NIH-funded, prospective, multi-center, randomized, open label clinical trial. Patients with a moderately symptomatic cSDH (***de novo or recurrent***), defined as 4/5 weakness or better, gait instability, or mild aphasia, will be randomized in a 1:1 ratio to ***standalone MMAE*** with ***particles (PVA or embospheres)*** or surgical drainage. The composite primary outcome is the proportion of patients that require ***rescue surgery or die*** within 180 days. The primary hypothesis is that the proportion of that require surgery or die within 180 days after randomization is lower by 13% or more for the MMAE treated group compared to surgical drainage. For an effect size of 13%, assuming that the proportion of subjects that will require surgery or die is 25% in the surgical drainage group, a type I error probability of 0.05, a type II error probability of 0.15, and a dropout/crossover rate of 10%, the sample size of 394 patients was estimated. One interim analysis for overwhelming efficacy and futility will be performed assuming a group sequential design of O'Brien and Fleming boundary. Safety outcomes include the proportion of subjects with ischemic strokes, serious/life threatening adverse events, worsening neurological status or development of new disabling neurological symptoms, seizures, and cranioneuropathy (blindness and facial paralysis) within 180 days of randomization. Exploratory outcomes include volumetric reduction in hematoma size, change in Quality of Life, cognition, headache, and mRS at 180 days.
Discussion CHESS is designed to be the first US randomized controlled trial to provide evidence on the safety and efficacy of standalone MMAE vs surgical drainage. Innovative features of this design include the use of particles as the embolic agent and the inclusion of recurrent, in addition to de novo, cSDHs.
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