



Editorial

Middle meningeal artery embolization for chronic subdural hematomas: Adjunctive or standalone?

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Chronic subdural hematoma (CSDH) is a frequent condition in neurosurgical practice. Primary surgical evacuation (Burr-hole drainage) remained the treatment's gold standard despite the progress of several endovascular alternatives [1]. CSDH recurrence is observed in more than 15% of operated cases. Surgical rescue is needed in most of these situations [2,3].

Middle meningeal artery embolization (MMAE) is a recent minimally invasive approach in CSDH management. Several embolization agents and protocols used in this technique were associated with lower short-term CSDH recurrence rates and shorter hospital stay [4].

MMAE was initially indicated for intractable refractory CSDH cases. Recently, MMAE indications were extended to several other clinical situations specially in elderly patients, concomitant anticoagulation treatments and in case of septic or metastatic CSDH [5,6]. MMAE modalities and techniques are still heterogeneous and non-consensual. The use of embolic materials reaching more distally was correlated with lower recurrence rate. Some authors are considering liquid MMA embolization agents as safer and more effective [7].

Associated to surgery, MMAE significantly decreases surgical treatment failure rate and the need for second rescue with acceptable added morbidity and mortality [8]. Over the last few years MMAE is proving to be a safe non-invasive treatment option with favorable outcomes and lower recurrence rate [8]. Standalone MMAE may be equivalent to MMAE and surgery association regarding recurrence rate, surgical rescue and inpatient hospital stay [9]. Several studies have revealed that MMAE may stop the neovascularization process which is the main cause of traumatic CSDH recurrence [10]. Furthermore, MMAE is safer and more effective in the management of CSDH for patient with malignant coagulopathies [11]. MMAE is a promising alternative to surgery in appropriately selected CSDH cases. However, evidence-based assessment of long-term efficacy, durability and exact patient centered indications is needed before considering this endovascular approach as a viable definitive treatment of CSDH [12].

References

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