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## Middle meningeal artery embolisation for chronic subdural haematomas – an Australian single-centre experience

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**Purpose:** Non-acute subdural haematomas (NASDH) are expected to become more common with ageing populations, yet there remains a lack of good quality evidence to guide management.(1) Middle meningeal artery (MMA) embolisation is a novel treatment that has been used as either an alternative or an adjunctive treatment to surgical evacuation of the hematoma.(2) It has been shown histologically that neovessels penetrate from the MMA to the membrane, and radiologic studies have demonstrated this connection through imaging embolisation particles postprocedure.(3, 4) Selective angiography for embolisation should be based on the careful evaluation of MMA anatomy with different techniques described in the literature using a variety of embolic agents.(5) The aim is to present the first Australian series of patients treated with MMA embolisation, and to review the pearls and pitfalls of the treatment.

**Methodology:** A retrospective cohort study included patients treated with MMA embolisation for chronic subdural haematoma at a single tertiary institute over 2020-2021. Indications for treatment include primary therapy and adjunctive treatment with surgical evacuation.

**Results:** 14 patients were included in the series, with an average age of 74. 2 patients underwent MMA embolisation as primary treatment whilst 12 were performed as a secondary operation supplementing surgical evacuation. 13 patients (93%) were successfully treated without procedural complications. 1 patient (7%) was unable to be embolised with the procedure terminated due to difficult aortic arch access. 11 procedures (85%) utilised Onyx, with 2 (15%) utilising Squid. At time of last follow-up (range 2-18 months), none of the patients required further surgical evacuation.

**Conclusion:** This initial experience showed that MMA embolisation is a technically feasible and safe treatment of new or recurrent chronic subdural haematomas. It was well tolerated with liquid embolic agents utilised and none of the patients required further surgical evacuation. However, patients with difficult access and aberrant anatomy may present a technical challenge.

### Biography

Xian E is from Royal Prince Alfred Hospital, Sydney, Australia. He has attended many international conferences and published his research in many Journals.

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