Delayed cerebral ischemia (DCI) is a feared complication and an important cause of poor outcome after aneurysmal subarachnoid hemorrhage (SAH). In the current study, Wong and colleagues performed a systematic review and meta-analysis of randomized controlled trials that investigated the efficacy of magnesium sulfate in patients with aneurysmal SAH. Outcome measures were DCI, cerebral infarction, and functional outcome 3 and 6 months after SAH. Magnesium sulfate decreased the rate of cerebral infarction, but not of DCI or poor functional outcome. Regarding outcome, a beneficial effect of magnesium sulfate on outcome can not be ruled out because of sample size limitations. Even if this meta-analysis had shown an effect on outcome, the question remains which treatment protocol should be applied in daily practice, since the administration of magnesium sulfate differed between most included studies. The present meta-analysis also underlines the importance of defining clinically relevant endpoints in SAH trials. Clinical deterioration due to DCI is more subject to inter-observer bias compared to cerebral infarction, which represents the ultimate outcome of the ischemic event. The Magnesium in Aneurysmal Subarachnoid Hemorrhage-II (MASH-II: ISRCTN68742385) phase III clinical trial nears completion. It aims to include 1,200 patients, and its results are urgently awaited.

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on outcome, but as pointed out by the authors, an effect on outcome can not be ruled out because of the relatively low number of included patients.

Even if the present meta-analysis had shown a beneficial effect of magnesium sulfate on functional outcome, an important unanswered question would be which treatment protocol should be applied in daily practice. The administration of magnesium sulfate differed between most included studies. The concentration of magnesium sulfate was either 64 or 80 mmol/day, with or without initial bolus, and with or without dosage adjustment according to serum magnesium levels. The Magnesium in Aneurysmal Subarachnoid Hemorrhage-II (MASH-II: ISRCTN68742385) phase III clinical trial will hopefully shed more light on the efficacy of magnesium sulfate in this group of patients. MASH-II aims to include 1,200 patients, which is based on a relative risk reduction of poor functional outcome of 22% (with alpha = 5% and a power of 80%) [6]. In MASH-II, magnesium sulfate 64 mmol/day or placebo is started within 4 days after SAH and continued until 20 days after the hemorrhage. This trial nears completion and its results are to be expected soon.

Abbreviations
DCl, delayed cerebral ischemia; MASH-II, Magnesium in Aneurysmal Subarachnoid Hemorrhage-II; SAH, subarachnoid hemorrhage.

Competing interests
The author declares that he has no competing interests.

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