prophylactic nimodipine treatment from the day before surgery until the seventh postoperative day.

Based on this pilot study, a randomized, multi-centric clinical phase III is actually being performed in order to confirm the neuroprotective efficacy of nimodipine in vestibular schwannoma surgery.

In general, nimodipine reduces the risk for poor outcome and delayed ischaemic neurological deficits and is recommended for the management of aneurysmal subarachnoid haemorrhage. Additionally, several animal experiments and clinical series reveal its neuroprotective efficacy after skull base, laryngeal, and maxillofacial surgery. Its positive effects have been attributed to neuroprotection. However, the underlying cellular mechanisms remain in part unclear.

Declaration of interest
None declared.

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Reply from the authors

Editor—We are grateful to Dr Scheller for his interest in our review.

Dr Scheller has interestingly drawn our attention to one of his articles, where the effects of continuous infusion of nimodipine (15 – 30 μg kg⁻¹ h⁻¹), and hydroxyethylstarch 10% (aimed to maintain a hematocrit between 30% and 35%) started the day before surgery and continued until the seventh postoperative day, on facial nerve paresis and hearing loss after schwannoma surgery were tested. Dr Scheller suggests that his study should be included and described in our review. However, it was not for several reasons.

(i) As reported in our ‘primary endpoints’, the selected studies should describe: new postoperative neurological deficit as stroke with the appearance of symptoms and/or focal signs in the physical examination confirmed by computerized tomography imaging, or as a change in postoperative score from preoperative assessment with neurological scales such as the National Institutes of Health Stroke Scale (NIHSS) and the Western Perioperative Neurologic Scale (WPNS). Dr Scheller’s study was addressed to evaluate ‘cochlear and facial nerve function’ rather than symptoms or signs of brain damage.

(ii) In our review, we describe ‘pharmacological perioperative brain neuroprotection’ and studies related to perioperative protection of cranial and spinal nerve function (that according to traditional anatomical categorization belong to the peripheral nervous system) were not selected.

Of special interest, as reported in our review, nimodipine was tested in two randomized controlled trials—accomplished in cardiac surgery—with the aim of ‘Pharmacological perioperative brain neuroprotection‘. One of these studies was prematurely aborted because of the unexpected disparity in death rates due to excess postoperative bleeding. This additional risk should be carefully considered in future studies with nimodipine.
Declaration of interest
None declared.

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