

Sphenopalatine ganglion block for the treatment of postdural puncture headache. Comment on *Br J Anaesth* 2020 124: 739–47

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Editor—There has been considerable interest in the use of sphenopalatine ganglion block to treat postdural puncture headache. Compared with the more commonly performed epidural blood patch, sphenopalatine ganglion block is significantly less invasive and therefore carries a much lower risk profile.¹ As such, there has been increasing interest in the use of this mode of treatment. In the recently published study by Jespersen and colleagues,² 40 patients were enrolled in a double-blinded RCT to determine if sphenopalatine ganglion block is better than sham at reducing headache scores in the upright position 30 min after the block.² The investigators found no difference in this primary outcome. Furthermore, they were unable to find a difference in the rates of epidural blood patch use between these two groups.² Interestingly, Jespersen and colleagues² found that in both the local anaesthetic and saline injection groups, upright headache pain scores were significantly lower than baseline at 30 and 60 min. As such, they postulated that perhaps their choice of sham may have had a biological effect.²

Apart from a possible active placebo problem resulting in the observed effects, we would like to suggest an alternative explanation for the observed results. The transnasal sphenopalatine ganglion block was performed in the supine position with the head in the extended position. If the patient was kept in the supine position for the duration of the procedure and assuming that each procedure took 30 min including preparation time, there may have been a restoration of cerebrospinal volume and therefore a reduction in pain scores irrespective of group allocation. It has been proposed that headache after a dural puncture occurs because persistent cerebrospinal fluid leak from the puncture site results in low intracranial pressure. To maintain intracranial pressure,

cerebrovasodilatation occurs and the resulting orthostatic headache experienced by those affected.³

An unanswered question is whether sphenopalatine ganglion block has an effect even after the local anaesthetic dissipates. Although there was a reduction in the number of epidural blood patches required,² this may be a result of the natural history of postdural puncture headache. To evaluate whether sphenopalatine ganglion block reduces the rates of epidural blood patch, we suggest the need for a study comparing sphenopalatine ganglion block with bed rest.

Declarations of interest

The authors declare that they have no conflicts of interest.

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