

## Careful consideration for use of triptans for the control of headache in bacterial meningitis

Sir,

I read with great interest the article entitled "Nitrite, vasodilation, and headache in bacterial meningitis: Theoretical approach" by Viroj Wiwanitkit.<sup>[1]</sup> The author proposes a reasonable hypothesis based on literature review that vasodilatation secondary to nitrite production by bacteria can result in vasodilatation in the blood vessels and stimulation of nociceptive nerve endings in the meningeal vessel wall. As the author points out, in a rat model of pneumococcal meningitis, it was also found that zolmitriptan and naratriptan reduced the influx of leukocytes into the cerebrospinal fluid, reduced intracranial pressure, reduced brain water content, and attenuated the increase of regional cerebral blood flow.<sup>[2]</sup> Despite these benefits of the use of triptans in the animal model of meningitis, its use in patients as a cerebral vasoconstrictor needs careful thought. *Pneumococcus* has known thrombogenic potential via activation of the extrinsic coagulation pathway.<sup>[3-6]</sup> Ischemic strokes have been reported in patients with pneumococcal meningitis in the past.<sup>[7,8]</sup> Steroid, used for the management of bacterial meningitis, also has a potential for activation of the extrinsic coagulation pathway,<sup>[9,10]</sup> a fact that was not tested in the rat animal

model. Addition of vasoconstrictive agents like triptans in the midst of this thrombogenic environment has the potential of critically reducing cerebral blood flow and, thus, needs careful thought and risk stratification before use.

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