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In this issue

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This issue of *Acupuncture in Medicine* opens with two new systematic reviews with a decidedly gastrointestinal theme that explore the potentially positive effects of acupuncture at opposite ends of the alimentary tract. The first, by Zhu *et al* pooled the results of 12 randomised controlled trials of manual acupuncture (MA) and electroacupuncture (EA) as both adjuncts and alternatives to conventional medications (predominantly proton pump inhibitors) to treat gastro-oesophageal reflux disease (GORD). Compared with pharmacological therapy alone, recurrence rates of GORD were significantly lower in MA/EA-treated patients and, when MA/EA was combined with medication, there was a greater global symptom improvement. They also found evidence of a beneficial effect on quality of life measures, suggesting this is an area worthy of further investigation, especially given the relatively limited methodological quality of the existing evidence. The second systematic review, by Zhou *et al*, presents a comparison of the effects of EA versus conventional medications (eg, mosapride, senna and lactulose) for functional constipation. EA treatment was associated with a greater frequency of spontaneous bowel movements, larger reductions in symptom scores and higher total response rates. Their findings are consistent with recent preclinical research in a cold saline gavage rat model of constipation, in which objective improvements in gastrointestinal transit and defaecation frequency were accompanied by enhanced colonic serotonin and tryptophan hydroxy-lase expression.¹

Next, Zhao *et al* present the findings of a multicentre randomised controlled trial of acupuncture at SP6 for primary dysmenorrhoea. This study was originally designed to test the importance of the *de qi* sensation in treatment outcome, which is pertinent given that it has been recently shown that many determinants of acupuncture 'dose', including the number of needles used, retention time and overall number of treatments, have a significant impact on therapeutic outcomes in

this particular condition.² It therefore seems feasible that the degree of manual needle stimulation (ie, elicitation of *de qi*) may also be important in this respect. The authors found however, that *prevention* of *de qi* sensation was much harder than expected, given that 55% of participants who were randomised to the 'no *de qi*' group still experienced the classical sensation. Accordingly, intention-to-treat analysis resulted in no significant difference between groups. Interestingly, however, actual experience of *de qi*, independent of original group allocation was associated with apparently greater analgesic effects.

It is increasingly recognised that acupuncture and related techniques impact the autonomic nervous system.^{3,4} Waki *et al* add further to this literature by showing that high-frequency (100Hz) facial EA increases parasympathetic activity as well as enhances cerebral blood flow. Elsewhere, Weeks *et al* highlight the potential receptivity of patients to the prospect of receiving acupuncture to prevent post-operative nausea and vomiting, the efficacy and effectiveness of which is comparable to anti-emetics,⁵ and which continues to be a focus of recent research evaluating the role of acupuncture in multi-modal post-surgical care.⁶⁻⁹

The issue concludes with four preclinical studies examining the effects of MA/EA on glucose levels and markers of ovarian function in female rats subjected to continuous light exposure, on hypoxia-inducible factor 1 α expression and infarct volume in male rats exposed to middle cerebral artery occlusion-induced ischaemic stroke, on the endoplasmic reticulum stress response in male rats with heroin addiction/relapse, and on urinary metabolomics markers in spontaneously hypertensive rats. The heroin extends the author's previous work in this area that evaluated the impact of acupuncture on apoptosis and the unfolded protein response.¹⁰

Competing interests None declared.

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