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# In this issue

doi:10.1136/acupmed-2017-011589

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The final issue of *Acupuncture in Medicine* for 2017 contains no fewer than four systematic reviews. The first (this month's editor's choice), by Zhang *et al* tackles the topic of chronic knee pain (CKP). In their meta-analysis of 17 studies, the authors found evidence of a reduction in CKP after 12 weeks of treatment, measured using both the Western Ontario and McMaster Universities Osteoarthritis (WOMAC) score and visual analogue scale. There was no evidence of harm of treatment, reflected by the equivalent rates of adverse effects in both groups. Although methodological issues limited the conclusions that could be drawn pending the conduct of further high quality trials, the findings are still encouraging and support the ongoing use of acupuncture for osteoarthritis of the knee, which has been relatively discouraged recently in the face of the widely publicised, although arguably flawed,<sup>1,2</sup> negative trial by Hinman *et al*,<sup>3</sup> published in *JAMA*, and the decision of the National Institute of Health and Care Excellence (NICE) not to recommend acupuncture in the UK based on its failure to demonstrate a minimum clinically important difference of 0.5 over sham.<sup>4</sup> The second systematic review of this issue, by Liu *et al*, found encouraging data (pooled from a total of 11 trials) to support the use of acupuncture as an adjunct to Madopar (levodopa combined with the dopa decarboxylase inhibitor benserazide) to treat Parkinson's disease, reflected by improved Unified Parkinson's Disease Rating Scale (UPDRS) scores. Combined treatment with acupuncture was also associated with lower rates of various adverse effects compared with treatment with Madopar alone. The third review, by Liang *et al*, although greatly limited by the small

number of heterogeneous trials available with a relatively high risk of bias, suggested that further evaluation of acupressure as a therapeutic modality for allergic rhinitis and/or allergic asthma is warranted. Positive effects of acupuncture on respiratory disorders, including asthma and chronic obstructive pulmonary disease, have also recently been shown by preclinical studies in rodent models.<sup>5,6</sup> The final systematic review, by Namazi *et al*, considered the current evidence for laser acupuncture as a potential treatment for obesity (incidentally the inspiration for this issue's cover photo) but, despite some positive effects on various biometric parameters, was similarly limited by the relative lack of high quality evidence and inability to pool the data. Additional findings of pilot clinical studies and preclinical reports are ultimately encouraging,<sup>7,8</sup> but further research is clearly needed, especially given the complex nature of adult obesity (a growing epidemic worldwide) and the intuitive need for a multimodal approach to clinical management.

Elsewhere in this issue, Enblom & Johnson present an analysis of the safety of acupuncture at PC6 acupuncture, and Wu *et al* demonstrate nicely, using an extracellular signal regulated kinase (ERK) inhibitor, that electroacupuncture can alleviate neurological deficits and reduce cortical apoptosis via upregulation of phosphorylated ERK in a rat model of cerebral ischaemia-reperfusion injury. Next, Liu *et al* examine the impact of acupuncture at different spinal segmental levels on electromyography/cystometry of the detrusor muscle in a rat model of urinary retention induced by urethral outlet obstruction, in order to investigate the mechanisms of action of acupuncture interventions analogous to posterior tibial nerve stimulation and sacral neuromodulation: SP6 and BL33 stimulation, respectively. Finally, Zhang *et al* expand on their previous preclinical work examining the properties of myofascial trigger points,<sup>9</sup> using optical microscopy and transmission electron microscopy to evaluate histopathological markers of injury including the abundance of mitochondria and contracture knots.

**Contributors** DJC wrote the manuscript.

**Competing interests** None declared.

**Provenance and peer review** Not commissioned; internally peer reviewed.

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