Characteristics of acupuncture treatment associated with outcome: an individual patient meta-analysis of 17,922 patients with chronic pain in randomised controlled trials.

Recent evidence shows that acupuncture is effective for chronic pain. However we do not know whether there are characteristics of acupuncture or acupuncturists that are associated with better or worse outcomes. An existing dataset, developed by the Acupuncture Trialists' Collaboration, included 29 trials of acupuncture for chronic pain with individual data involving 17,922 patients. The available data on characteristics of acupuncture included style of acupuncture, point prescription, location of needles, use of electrical stimulation and moxibustion, number, frequency and duration of sessions, number of needles used and acupuncturist experience. We used random-effects...
meta-regression to test the effect of each characteristic on the main effect estimate of pain. Where sufficient patient-level data were available, we conducted patient-level analyses. When comparing acupuncture to sham controls, there was little evidence that the effects of acupuncture on pain were modified by any of the acupuncture characteristics evaluated, including style of acupuncture, the number or placement of needles, the number, frequency or duration of sessions, patient-practitioner interactions and the experience of the acupuncturist. When comparing acupuncture to non-acupuncture controls, there was little evidence that these characteristics modified the effect of acupuncture, except better pain outcomes were observed when more needles were used (p=0.010) and, from patient level analysis involving a sub-set of five trials, when a higher number of acupuncture treatment sessions were provided (p<0.001). There was little evidence that different characteristics of acupuncture or acupuncturists modified the effect of treatment on pain outcomes. Increased number of needles and more sessions appear to be associated with better outcomes when comparing acupuncture to non-acupuncture controls, suggesting that dose is important. Potential confounders include differences in control group and sample size between trials. Trials to evaluate potentially small differences in outcome associated with different acupuncture characteristics are likely to require large sample sizes.