Comparative efficacy of pharmacological and non-pharmacological interventions in fibromyalgia syndrome: network meta-analysis.

Abstract:
To synthesise the available evidence on pharmacological and non-pharmacological interventions recommended for fibromyalgia syndrome (FMS). Electronic databases including MEDLINE, PsycINFO, Scopus, the Cochrane Controlled Trials Registry and the Cochrane Library were searched for randomised controlled trials comparing any therapeutic approach as recommended in FMS guidelines (except complementary and alternative medicine) with control interventions in patients with FMS. Primary outcomes were pain and quality of life. Data extraction was done using standardised forms. 102 trials in 14,982 patients and eight active interventions (tricyclic antidepressants, selective serotonin reuptake inhibitors, serotonin noradrenaline reuptake inhibitors (SNRIs), the gamma-amino butyric acid analogue pregabalin, aerobic exercise, balneotherapy, cognitive behavioural therapy (CBT), multicomponent therapy) were included. Most of the trials were small and hampered by methodological quality, introducing heterogeneity and inconsistency in the network. When restricted to large trials with \( \geq 100 \) patients per group, heterogeneity was low and benefits for SNRIs and pregabalin compared with placebo were statistically significant, but small and not clinically relevant. For non-pharmacological interventions,
only one large trial of CBT was available. In medium-sized trials with >=50 patients per group, multicomponent therapy showed small to moderate benefits over placebo, followed by aerobic exercise and CBT. Benefits of pharmacological treatments in FMS are of questionable clinical relevance and evidence for benefits of non-pharmacological interventions is limited. A combination of pregabalin or SNRIs as pharmacological interventions and multicomponent therapy, aerobic exercise and CBT as non-pharmacological interventions seems most promising for the management of FMS.