Primary dysmenorrhoea

Evidence for complementary medicine

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Primary dysmenorrhoea is the occurrence of painful menstrual cramps in the absence of pelvic pathology. This review discusses alternative approaches to the management of this debilitating condiditon.

Dietary habits and dysmenorrhoea

A well designed Italian cross sectional study investigated correlations between dietary habits and dysmenorrhoea in 356 participants aged 14–21 years with and without primary dysmenorrhoea.[1] There was a statistically significant difference in weekly fruit, egg and fish consumption ($p<0.05$): those with primary dysmenorrhoea consumed less fruit, eggs and fish than those without menstrual pain.

The authors postulated that lower intake of omega-3 fatty acids, calcium and magnesium predisposed to increased myometrial contraction, vasoconstriction and muscular spasm due to neuromuscular excitability.

Herbal and dietary therapies

This Cochrane review[2] evaluated the efficacy and safety of herbal and dietary therapies for primary and secondary dysmenorrhoea. Seven randomised controlled trials were identified, with participants aged 12–45 years. Duration of treatment varied from 2–6 months. All studies apart from the vitamin E study were double blinded.

Magnesium was shown to be more effective than placebo in two of 3 trials. Minimal adverse effects (diarrhoea, stomach acid problems) were reported in both magnesium and placebo groups. Two trials had dropout rates over 30%, which may have an impact on the strength of the evidence if drop outs were due to side effects or poor response. Of note, levels of prostaglandin F2 alpha in menstrual blood were significantly lower in the magnesium group in one trial; in another, magnesium was no more effective than vitamin B6 or a combination of magnesium and vitamin B6.

One large placebo controlled trial showed significant benefit from vitamin B1, however, the time frame was relatively short (2 months of either treatment) and a strong placebo effect is typically found in these types of trials.

There was no significant difference between a combination of vitamin E and ibuprofen against ibuprofen alone; this evidence is also limited by the short time frame (1 month of each treatment) and lack of double blinding.

Omega-3 fatty acids (fish oils) were found to be significantly more effective than placebo, but this study again was limited by short follow up of 2 months. The fish oil group consumed less additional medication but reported more adverse effects (nausea, acne exacerbation).

A Japanese herbal remedy (Toki-shakuyaku-san) was significantly better than placebo and this was maintained after a further 2 month nontreatment follow up period.

The review authors concluded that 'overall no strong recommendations can be made... due to both the small number of trials, and the small size of the majority of the trials'. Vitamin B1 appears to be effective at a dose of 100 mg/day and results from magnesium are promising, but the recommended dose and regimen are unclear.

Vitamin E

In a well conducted randomised controlled trial, 278 Iranian high school students were assigned to either a treatment or placebo group.[3] The treatment group took 200 IU of vitamin E twice per day for 5 days, starting 2 days before menstruation. All participants were allowed to consume up to 200 mg ibuprofen 8 hourly and were followed up at 2 and 4 months.

Vitamin E was found to be significantly more effective than placebo in reducing pain score and pain duration, with greatest effect in a severe dysmenorrhoea subgroup. There was also a significant reduction in ibuprofen use among the treatment group compared with placebo. No adverse events were reported.

The authors concluded that vitamin E at a dose of 200 IU twice per day for 5 days during the beginning of menstruation significantly reduces the severity and duration of pain due to primary dysmenorrhoea.

Conflict of interest: none.

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