Uterine fibroids are the most common premenopausal benign uterine tumours. Fibroids can cause symptoms including heavy menstrual bleeding, pelvic pressure and pain. Progestogens can be administered by various routes. Intramuscular injection of depot medroxyprogesterone acetate (DMPA) has dual actions (stimulatory or inhibitory) on fibroid cell growth. Progestogen-releasing intrauterine systems (IUS) decrease menstrual blood loss associated with fibroids by inducing endometrial atrophy and reduction of uterine fibroid size. Currently, their effectiveness for the treatment of uterine fibroids has not been evaluated.

To determine the effectiveness of progestogens or progestogen-releasing intrauterine systems in treating premenopausal women with uterine fibroids.

We searched the Menstrual Disorders and Subfertility Group Specialised Register (inception to 17 August 2012), CENTRAL (inception to 17 August 2012) and Database of Abstracts of Reviews of Effects (DARE) in The Cochrane Library, MEDLINE (inception to 17 August 2012), Ovid EMBASE (1 January 2010 to 17


Abstract

Uterine fibroids are the most common premenopausal benign uterine tumours. Fibroids can cause symptoms including heavy menstrual bleeding, pelvic pressure and pain. Progestogens can be administered by various routes. Intramuscular injection of depot medroxyprogesterone acetate (DMPA) has dual actions (stimulatory or inhibitory) on fibroid cell growth. Progestogen-releasing intrauterine systems (IUS) decrease menstrual blood loss associated with fibroids by inducing endometrial atrophy and reduction of uterine fibroid size. Currently, their effectiveness for the treatment of uterine fibroids has not been evaluated.

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August 2012), Ovid PsycINFO (inception to 17 August 2012), CINAHL database, and trials registers for ongoing and registered trials.

All identified published or unpublished randomised controlled trials (RCTs) assessing the effect of progestogens or progestogen-releasing intrauterine systems in treating premenopausal women with uterine fibroids.

We assessed all potentially eligible studies identified as a result of the search strategy. Two review authors extracted data from each included study using an agreed form and assessed the risk of bias. We resolved discrepancies through discussion.

This review included three studies. However, data for progestogen-releasing intrauterine systems were available from only one study that compared 29 women with a levonorgestrel (LNG)-IUS versus 29 women with a combined oral contraceptive (COC) for treating uterine fibroids. There was a significant reduction of menstrual blood loss (MBL) in women receiving the LNG-IUS compared to the COC using the alkaline hematin test (mean difference (MD) 77.5%, 95% CI 71.3% to 83.67%, 58 women) and a pictorial assessment chart (PBAC) (MD 34.5%, 95% CI 14.9% to 54.1%, 58 women). The reduction in uterine fibroid size was significantly greater in the leuprorelin group at 16 weeks compared to the progestogen lynestrenol group (MD -15.93 mm, 95% CI -18.02 to -13.84 mm, 46 women). There was no RCT evaluating the effect of DMPA on uterine fibroids.

Progestogen-releasing intrauterine systems appear to reduce menstrual blood loss in premenopausal women with uterine fibroids. Oral progestogens did not reduce fibroid size or fibroid-related symptoms. However, there was a methodological limitation and the one included study with data had a small sample size. This evidence is insufficient to support the use of progestogens or progestogen-releasing intrauterine systems in treating premenopausal women with uterine fibroids.

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