Endometrial destruction techniques for heavy menstrual bleeding: a Cochrane review

A. Lethaby and M. Hickey

1 Department of Obstetrics and Gynaecology, University of Auckland, 2nd Floor, National Women’s Hospital, Claude Road, Epsom, Auckland, New Zealand and 2 Obstetrics and Gynaecology, University of Western Australia, King Edward Memorial Hospital, 2nd Floor, A Block, 374 Bagot Road, Subiaco, Perth, Australia

3 To whom correspondence should be addressed. E-mail: a.lethaby@auckland.ac.nz

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BACKGROUND: The objective of this review was to compare the efficacy, safety and acceptability of methods used to destroy the endometrium to reduce heavy menstrual bleeding (HMB) in premenopausal women. METHODS: We searched the Cochrane Controlled Trials Register, Medline, Embase, Current Contents, Biological Abstracts, Psyclit and CINAHL. We also searched the specialized register of the Cochrane Menstrual Disorders and Subfertility Group and reference lists of articles, and contacted pharmaceutical companies and experts in the field. Randomized controlled trials comparing endometrial ablation techniques in women with a complaint of HMB without uterine pathology were selected. The outcomes included reduction of HMB, improvement in quality of life, operative outcomes, satisfaction with outcome, complications and need for further surgery. The two reviewers independently selected trials for inclusion, assessed trials for quality and extracted data. Attempts were made to contact authors for clarification of data in some trials. Adverse events were only assessed if they were separately measured in the included trials. RESULTS: In comparing hysteroscopic techniques, the vaporizing electrode procedure was less difficult to perform [odds ratio (OR) = 0.25; 95% confidence interval (CI): 0.1, 0.7] and had less fluid deficit [weighted mean difference (WMD) = –258 ml; 95% CI: –342.1, –174.0] than transcervical resection of the endometrium (TCRE). The odds of fluid overload and equipment failure were higher (OR = 5.2; 95% CI: 1.5, 18.4 and OR = 6.0; 95% CI: 1.7, 20.9 respectively) for those women having laser treatment as compared with TCRE. In comparing traditional hysteroscopic endometrial ablation with the newer second generation techniques overall, the newer techniques took less time to perform (WMD = –11 min; 95% CI: –18.6, –2.6) and were more likely to be performed under local anaesthesia (OR = 7.6; 95% CI: 1.1, 52.7) but had a greater chance of equipment failure (OR = 4.1; 95% CI: 1.1, 15.0). The reduction in HMB did not differ significantly between any of the groups. CONCLUSIONS: The rapid development of a number of new methods of endometrial destruction has made systematic comparisons between methods and with the ‘gold standard’ of TCRE difficult. Most of the newer techniques are performed blind and are technically easier than hysteroscopy-based methods. Overall, the existing evidence suggests that success rates and complication profile of newer techniques of ablation compare favourably with TCRE, although technical difficulties with new equipment need to be ironed out.

Key words: Cochrane/endometrium/heavy menstrual bleeding/surgery