Is the LNG-IUS as effective as endometrial ablation in relieving menorrhagia?

According to this meta-analysis of six randomized, controlled trials involving 390 women, the levonorgestrel intrauterine system (LNG-IUS) (Mirena) reduces heavy menstrual bleeding as effectively as endometrial ablation (manual hysteroscopy or thermal balloon ablation) for as long as 24 months.

Kaunitz AM, Meredith S, Inki P, Kubba A, Sanchez-Ramos L. Levonorgestrel-releasing intrauterine system and endometrial ablation in heavy menstrual bleeding. A systematic review and meta-analysis. Obstet Gynecol. 2009;113:1104–1116.

EXPERT COMMENTARY

Matthew R. Hopkins, MD, Assistant Professor of Obstetrics and Gynecology, Mayo Clinic, Rochester, Minn.

M enorrhagia is a common problem for which many women consult a physician. Evaluation requires the exclusion of serious pathology, and treatment entails reducing menstrual blood loss and improving quality of life.

Historically, hysterectomy was the only alternative to medical treatment. However, endometrial ablation and the LNG-IUS have both proved to be effective, and less invasive, therapies.

Until recently, the average ObGyn in the United States placed only about four intrauterine devices (IUDs) a year. This low volume made many practitioners reluctant to prescribe the IUD, but we are seeing a resurgence in use.

Details of the study

This analysis, which meets Quality of Reporting of Meta-analyses (QUOROM) guidelines, was restricted to studies that included preand posttreatment assessment of menstrual blood loss using the Pictorial Blood Loss

Assessment Chart (PBLAC).¹ Although the PBLAC has limitations, it is one of the more practical, objective measures available. The PBLAC score does not yield an exact measure of blood loss, but it has been found to correlate well with menstrual blood volume. When it is used to evaluate menstrual blood loss of 80 mL or more, its specificity and sensitivity exceed 80%.

In reviewing randomized, controlled trials for this study, the authors found only a small number (n=6) that met their criteria, and those studies involved a relatively small number of patients (LNG-IUS, n=196; endometrial ablation, n=194), limiting the statistical power of this investigation.

Both treatment modalities were associated with a reduction in menstrual blood loss, and the degree of the reduction was similar between modalities at 6, 12, and 24 months.

The treatment failure rate was not timeadjusted; nor was the study powered to address the question of failure.

Only two studies assessed the PBLAC score at 6 months, five did so at 12 months, and only two did so at 24 months. The small

WHAT THIS EVIDENCE MEANS FOR PRACTICE

Although the data presented in this study are not definitive, the findings do support the growing body of data suggesting that these two treatments are, in some respects, equivalent options. At the same time, they are different procedures with distinct risks and considerations. When deciding between them, a patient's desire for fertility may tip the scales in favor of the LNG-IUS.

>> MATTHEW R. HOPKINS, MD



This analysis of six randomized, controlled trials found that the LNG-IUS reduced menstrual blood loss as effectively as endometrial ablation did

number of women who had 24 months of follow-up limits the strength of the conclusion.

How this study compares with other investigations

As Kaunitz and colleagues note in their metaanalysis, studies comparing the LNG-IUS with endometrial ablation have produced conflicting findings about the reduction of menstrual blood loss: Some have found the modalities to be equally effective, others have found the LNG-IUS to be more effective, and still others have demonstrated higher efficacy for endometrial ablation. A recent Cochrane review reported that the LNG-IUS produced smaller mean reductions in menstrual blood loss than endometrial ablation did.²

When quality of life is the main consideration, data point to equivalence of options

The reduction of menstrual blood loss is only one area of focus in the treatment of menorrhagia, part of the larger goal of improving quality of life. Two Cochrane reviews concluded there is no difference between the LNG-IUS and endometrial ablation in regard to satisfaction rates or quality of life.^{2,3} Five studies reported quality of life scores; all five found them to be equivalent between modalities. ²

References

- 1. Moher D, Cook DJ, Eastwood S, Olkin I, Rennie D, Stroup DF. Improving the quality of reports of meta-analyses of randomised controlled trials: the QUOROM statement. Quality of Reporting of Meta-analyses. Lancet. 1999;354:1896–1900.
- 2. Lethaby AE, Cooke I, Rees M. Progesterone on progestogenreleasing intrauterine systems for heavy menstrual bleeding. Cochrane Database Syst Rev. 2005;(4):CD002126.
- **3.** Marjoribanks J, Lethaby A, Farquhar C. Surgery versus medical therapy for heavy menstrual bleeding. Cochrane Database Syst Rev. 2003;(2):CD003855.

ENDOMETRIAL ABLATION

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1 Yosipovitch, Gil MD and Maibach, Howard I. MD, Journal of the American Academy of Dermatology, August 1997 (37:278-280), "Effects of topical pramoxine on experimentally induced pruritus in humans"

