

## Article Summary

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### **The efficacy of medical management of leiomyoma-associated heavy menstrual bleeding: a mini review**

Leiomyomas, commonly known as fibroids, are benign tumors of the uterus affecting a significant number of women, with up to 70% diagnosed by the end of their reproductive years. The primary symptom associated with fibroids is heavy menstrual bleeding (HMB), although larger fibroids can also cause pelvic pressure and other discomforts. Diagnosis often involves imaging techniques like transvaginal ultrasonography and MRI to determine size, location, and impact on the uterus.

Medical management is typically the first-line approach for treating HMB associated with fibroids. Various options are available, including nonsteroidal anti-inflammatory drugs (NSAIDs), tranexamic acid (TXA), hormonal contraceptives (COCs), the levonorgestrel intrauterine system (LNG-IUS), and gonadotropin-releasing hormone (GnRH) agonists/antagonists. These treatments aim to alleviate symptoms by reducing menstrual bleeding and, in some cases, shrinking fibroid size. However, they do not provide a permanent solution to fibroid growth and symptoms may return after cessation of treatment.

The effectiveness of these medical therapies varies, with GnRH analogs showing substantial improvement in HMB during therapy but requiring consideration of their temporary effects and potential side effects. Selective hormone receptor modulators (SPRMs) have shown promise in reducing fibroid size and symptoms, but ongoing research is needed to address safety concerns. Complementary therapies such as vitamins (e.g., Vitamin D) and supplements (e.g., green tea extract) have been explored but lack robust evidence for efficacy specifically in fibroid-associated HMB.

Emerging technologies like **high-intensity focused ultrasound** offer non-invasive treatment options, though their therapeutic effects may be limited compared to traditional medical therapies. The choice of treatment should be individualized based on factors such as **symptom severity, patient preferences, desire for fertility preservation, and cost considerations**. While newer treatments like elagolix and relugolix provide direct fibroid-targeted therapy, traditional options such as hormonal contraceptives remain widely prescribed due to their cost-effectiveness and established safety profile.

In conclusion, while medical management offers effective symptom relief for fibroid-associated HMB, there is no universal cure. Ongoing research is essential to develop optimal long-term management strategies and personalized treatment plans tailored to the diverse needs of patients with leiomyoma-associated HMB.