Diagnosis and Management of Endometrial Polyps: A Critical Review of the Literature

Salim S, Won H, Nesbitt-Hawes E, Campbell N, Abbott J
Published in The Journal of Minimally Invasive Gynecology, September-October 2011
University of New South Wales, Randwick, New South Wales, Australia

Objective
Summarize and appraise the literature on the diagnosis and management of endometrial polyps.

Materials and Methods
Electronic resources, such as Medline, PubMed, CINAHL, The Cochrane Library (along with the Cochrane Database of Systematic Reviews), Current Contents, and EMBASE were searched with the Medical Subject Headings terms. This included all subheadings and keywords relating to endometrial polyps, abnormal uterine bleeding, polypectomy, polyp management, polyp and diagnosis, and polyp and malignancy. A total of 330 articles were identified, with 265 provisionally included manuscripts retrieved, reviewed, and abstracted by team members. Most were Canadian Task Force Classification II uncontrolled case series.

Findings
The literature searched in this study reflects a perceptibly low presence of Level I evidence on the diagnosis and management of this common condition. A pragmatic approach with the less-invasive treatment seems appropriate in the absence of such evidence.

Management
Management for women with endometrial polyps is dependent on symptoms, risk of malignancy, fertility issues, and operator skills. Management options are grouped here in the categories of conservative nonsurgical, conservative surgical, and radical surgical approaches.

Hysteroscopy with Guided Biopsy
Hysteroscopy with guided biopsy is the standard practice in diagnosis of endometrial polyps. Its key advantage is in offering the ability to concurrently visualize polyps and remove them. On its own, diagnostic hysteroscopy allows only subjective assessment of a lesion’s size, location, and physical properties, with reported sensitivity of 58% to 99%, specificity of 87% to 100%, PPV of 21% to 100%, and NPV of 66% to 99% when compared with hysteroscopy with guided biopsy.

Blind Biopsy
Due to diagnostic inaccuracy, blind dilation and curettage should not be used as a diagnostic method. Although specificity and PPV are 100%, the low sensitivity of 8% to 46% and NPV of 7% to 58% limits this procedure's usage when compared with hysteroscopy and guided biopsy.

Hysteroscopic Resection
Hysteroscopy and polyp morcellation is seen to be a safe and effective approach to diagnosing and treating endometrial polyps. The procedure supports an expeditious recovery, with a short hospital or office stay and easier return to normal activities. The chart shown here summarizes the relative advantages and disadvantages of the various techniques used to remove polyps at hysteroscopy.

Conservative Nonsurgical Management
Once diagnosed, the removal of endometrial polyps either in the office or with the patient under general anesthesia is considered a low-risk procedure. In two class II-2 studies, polyps <10 mm were found to have a 27% chance of spontaneous regression over 12 months, with a low chance of malignancy. This indicated polyps <10 mm in size found in symptom-free women could be managed conservatively (without a surgical approach).

Conservative Surgical Management
Despite evidence suggesting that blind dilation and curettage is not effective and has a significant complication rate associated with its use (1:100 perforation rate; 1:200 infection rate), the practice has been the standard approach for management of abnormal uterine bleeding and suspected endometrial disease. A pair of studies (class II-2 and II-3) report complete removal of endometrial polyps solely through dilation and curettage in only 4% of patients (8/51), while including the use of polyp forceps increases complete extraction to 41% of patients (21/51). These studies indicate that endometrial disease is fully removed less than 50% of the time and suggest that in many cases, the removal is incomplete.
Radical Surgical Options
The preferred treatment for endometrial polyps is hysterectomy. While the procedure guarantees no recurrence, as well as no potential for malignancy, its risk of surgical morbidity, along with its cost, invasive nature, and implication for future fertility are aspects that should be discussed with the patient. No class I studies exist that compare hysterectomy with conservative treatments for polyps; however, without such evidence, it is reasonable to consider a pragmatic and less-invasive treatment.

Clinical Outcomes
Clinical outcomes following endometrial polyp management approaches are generally good. A randomized clinical trial of 150 women with an endometrial polyp allocated to hysteroscopic removal or observation identified no difference in the volume of menstrual loss between the groups; symptoms such as intermenstrual bleeding, however, were seen at follow-up to be significantly improved by removal (7/75 showed residual symptoms following removal, as opposed to 28/75 observation).

Since the myometrium is not incised and the endometrium has a strong capacity for regeneration, adhesion risk after polypectomy is low. A 90-subject class I study shows no adhesions after hysteroscopic polypectomy. A class II-3 retrospective study found, over 9 years of follow-up after hysteroscopic polypectomy, recurrence of polyps in 3.7% of patients (5/240); repeat hysteroscopic removal was required in 1.7% (3) and subsequent hysterectomy in 0.8% (2).

Conclusion
Endometrial polyps are a common gynecologic disease. This disease increases with age and is not generally associated with malignancy. Polyps may not necessarily be responsible for abnormal uterine bleeding symptoms in premenopausal women; however, if they are found when the patient is diagnosed, it seems appropriate to effect their removal in order to exclude them as a potential causative factor.

Hysteroscopic resection is safe and effective as an approach to management of endometrial polyps, and allows histologic assessment. Considering the widespread availability of hysteroscopic removal and its low associated rate of complication, as well as its ability to be performed in an outpatient setting, targeted disease removal with using direct visualization is suggested, rather than dilation and curettage.

Conservative treatment is a viable option, contingent on patient risk factors and preference. Removal of polyps from patients presenting with infertility is likely to support subsequent pregnancy. Overall, conservative treatments of benign lesions should be given priority over radical treatments.