

Acceptability of Endometrial Polyp Resection under Local Anaesthesia

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Abstract

Introduction: New evidence is emerging to suggest that outpatient endometrial polyp removal under hysteroscopic guidance by morcellation with local anaesthesia is non-inferior to in patient polypectomy under general anaesthesia. However, evidence on its acceptability warrants further evaluation.

Objective: To assess the patient's acceptability of endometrial polyp resection under local anaesthesia in an outpatient setting.

Methodology: A prospective cohort study was carried out for three months on all patients who underwent this procedure under local anaesthesia in a secondary care unit in the United Kingdom. Intra-operative and post-operative acceptability was assessed by a standard questionnaire filled immediately after the procedure, before discharge and on the first post-operative day.

Results: Fifty patients underwent this procedure. The mean age was 56.48 (range 36-83). Complete resection of the polyps was achieved in 94% of the patients, while 6% had partial resection without total failure. Average, intra operative, immediate post operative and day 1 post operative pain scores were 2.38, 1.44 and 1.38 respectively and were in the mild category of the Discrete Quantitative Pain Verbal Rating Scale. Seventy eight percent of the patients were totally satisfied with the procedure while 14% and 8% were generally and fairly satisfied. None expressed that the procedure was unacceptable. Ninety four percent opted to recommend the procedure to a friend while 96% of patients expressed their willingness to undergo the procedure under local anaesthesia, if they were to have another resection of the polyp.

Conclusion: Outpatient hysteroscopic polyp resection by morcellation under local anaesthesia is well tolerated and accepted by patients in an outpatient setting.

Keywords: Out patient hysteroscopy, Morcellation of Endometrial Polyps, Local Anaesthesia

setting⁽⁸⁾. Furthermore, new evidence suggests that outpatient endometrial polyp removal under hysteroscopic guidance by morcellation with local anaesthesia is non-inferior to in patient polypectomy under general anaesthesia^(5,6,7). This also has the added advantage of treating the patient at the time of diagnosis with many clinical and nonclinical benefits such as possibility of obtaining targeted tissue biopsies, avoidance of risk of general anaesthesia, low procedure related cost, less hospital appointments, least time away from home and quicker return to work^(9,10,11,12,13).

However, the patient's acceptability and feasibility is not well understood⁽¹⁴⁾. This study aims to assess the patient's acceptability in a secondary care setting in the United Kingdom.

Our unit adheres to the following steps in performing endometrial polyp resection under local anaesthesia.

- Informed written consent is taken following verbal and written information.
- Analgesics are prescribed to be taken one hour prior to the procedure.
- Patients undergo the procedure in a quiet room with adequate privacy.
- Patients are placed in the lithotomy position.
- The procedure is performed under sterile conditions.
- A chaperone is with the patient while procedure is being done.
- Following the gentle placement of Sims speculum, 4-5 ampoules of Prilocaine Hydrochloride 2% without Adrenaline is given to establish intra-cervical or para-cervical block.
- If necessary, the dilatation of cervix is done. This is usually up to 7 or 8 Hegar.
- Hysteroscopy is performed and photographs are taken of any abnormalities, inclusive of the polyp

INTRODUCTION

Abnormal uterine bleeding affects women of all ages and is the commonest gynaecological reason for referral to secondary care⁽¹⁾.

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Endometrial polyps are defined as localised hyperplastic overgrowths of the endometrial glands and stroma projecting from the surface of the endometrium. They accounts for 24 to 41 % of abnormal uterine bleeding according to various population studies^(2,4,5). The current practice of surgical removal of the symptomatic endometrial polyps is evidence based^(6,7).

Traditionally, polyp removal under general anaesthesia is offered to patients who are diagnosed with endometrial polyps. The more recent advances in endoscopic technology and ancillary instruments have facilitated the development of operative hysteroscopic procedures in an outpatient



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The injection needle used for injecting loaded local anesthetic vials



Picture of polyp section by morcellation

- Outflow channel is then removed and replaced with a morcellator of a chosen size. This hysteroscopic tissue removal system resects and removes tissue by suction.
- Operating pressure is maintained at around 70 mmHg but can be increased to 80- 100 mmHg, if necessary.
- The patient is kept in the recovery room following the procedure and assessed by an experienced member of the staff prior to discharge.

We designed a prospective cohort study and trained all members involved in the study to minimise variations in data collection. Our main objective was to assess the patient’s acceptability of endometrial polyp resection under local anesthesia in an outpatient setting.

Intra operative and postoperative pain scores, rating of acceptability of the procedure, recommendation of the procedure to a friend and willingness to undergo the same procedure if a need arises were considered as the main outcome measures^(7, 15).

METHOD

We carried out a prospective cohort study for three months duration on all patients who underwent the procedure under local anaesthesia in a secondary care setting in the United Kingdom.

Intra-operative and immediate post-operative acceptability of endometrial polyp resection under local anaesthesia was assessed by a standard questionnaire filled immediately

after the procedure for intra-operative perceptions and prior to discharge for immediate postoperative perception. Further, a telephone conversation with each patient was carried out to determine perception on the first post-operative day.

Quantification of pain was made by means of the Discrete Quantitative Pain Verbal Rating Scale (VRS) that varies from 0 to 10 (equivalent to no pain and the worst pain experienced respectively)^(16, 17).

All statistical analysis was done by IBM SPSS statistics version 24.0.

RESULTS

Fifty patients underwent the procedure under local anaesthesia.

The mean age of the population studied was 56.48 years. Fifty eight percent (29/50) were postmenopausal. Average BMI was 32.58, with 58 % of the population above BMI 30. Forty two percent (21/50) of women were on long-term medication prior to this procedure, out of which 12 % (6/50) were on anticoagulants. They were managed according to the specialised advice from the haematologist.

Twenty two percent (11/50) of the population had undergone a previous cervical procedure that had mainly been LLETZ. _

Most of patients who had the polyps resected presented with post-menopausal bleeding which was 54% (27/50). This was followed by heavy menstrual bleeding in 28% (14/50) and inter menstrual bleeding in 20% (10/50). Ultrasound correctly identified 44% to be polyps prior to hysteroscopy.

All had premedication one hour prior to

Table1. Level of pain for each step of the procedure

Procedure	Average pain score	VRS classification		
		Mild 0-4	Moderate 5-8	Severe 9 or more
Introduction of the speculum	1.71	50	0	0
Infiltration of the local anesthetic and use of the vulsellum	2.55	48	2	0
Cervical dilatation	3.36	47	2	1
Hysteroscopic resection of the polyps	1.90	50	0	0
Immediate post operative pain	1.44	50	0	0
Post operative day1 pain	1.38	50	0	0

the procedure. A single agent was taken by 62% of the population while 38% had two agents.

Approximately 94 % (47/50) of the patients had a complete resection of the polyps while 6% (3/50) had partial resection without total failures.

About 20% of the patients had predominantly fundal polyps while rest had predominantly non-fundal polyps. Average intra operative pain score was 2.38.

Sub-analysis was carried out to see whether there are differences in average pain scores in different categories of patients who underwent this procedure. There was no significant difference in the average pain score between pre and post menopausal women who underwent this procedure (P 0.73, CI 0.51- 0.83). The average pain score for the cervical dilatation in women who had previous cervical procedures e.g. LLETZ was compared with women who had never undergone a previous cervical procedure and no significant difference was found (P 0.11, CI 0.21-0.65). Furthermore, no significant difference in pain for the resection of polyp by morcellation was identified for fundal or non-fundal polyps (P 0.26, CI 0.25- 0.51) . There was no significant difference in average pain for the complete intra operative procedure irrespective of using single or multiple agents as premedication (P 0.65, CI 0.24-1.4)

There were no reported incidences of cervical damage or uterine perforation. intra-operatively, nausea, vasovagal attacks and excessive hemorrhage were reported in four, two and one instance respectively, while one each complained of nausea and vasovagal episode on the first post-operative day,

PATIENT SATISFACTION WITH THE PROCEDURE

Seventy eight percent (39/50) of the patients were totally satisfied with the procedure, while 14% were generally satisfied and 8% were fairly satisfied. None expressed that the procedure was unacceptable.

A total of 94% expressed their willingness to recommend the procedure to a friend, while 96% of the patients expressed their wiliness to undergo the procedure under local anesthesia, if they were to have

another resection of the polyps.

DISCUSSION

Mean intra-operative pain score in our study was 2.38 which is in the mild category and similar to the mean pain score reported as 2.98 by Bergamo AM et al in their study¹⁵. The mean pain score reported in the study by NAM Cooper et al is 4.5, which is in the moderate category of VRS and is higher in comparison to our study⁷. The reasons for these variations may be due to the reason that the study by Cooper et al was carried out in several centres, which had different equipment and techniques. This variation was accepted as a limitation in their study by Copper et al⁷. However, our study used very similar equipment and protocol to the study by Bergamo ET al¹⁵.

Acceptability of the procedure in our study was quite similar to that which was reported by multicenter study carried out by Copper et al⁷. Our study revealed that the procedure was totally, generally and fairly acceptable to 78%, 14% and 8 % of patients respectively while Copper et al showed acceptability to 60%, 23% and 15% respectively. Both showed a very low rate of unacceptability accounting for 2% and 0% in Copper et al and the index study⁷.

Further both studies showed very high rates of recommendation of the procedure to a friend. These accounted for 94% in the index study and 92% in Cooper et al. In the index study, 96% of the patients expressed the desire to have the same procedure done under local anaesthesia if a need arose. This was 90% in the study done by Cooper and others.

We could not find any studies that analysed the pain scores for each of the steps of the procedure. Cervical dilatation had the highest pain score (Mean 3.36) and intra-cervical or para-cervical infiltration of local anaesthesia and the use of vulsellum on the cervix had the second highest pain score. Polyp resection by using morcellation had a very low mean pain score of 1.9, which was close to the mean pain scores of the introduction of the speculum, immediate post operative pain score and post operative day one pain score. These finding will be useful for the patients, clinicians and the policy makers in counselling patients and improving facilities for continuing this service

provision.

The following points were noted as the limitations of this study .We did not lay strict criteria for the size and number of polyps resected. Thus, we did not analyze the average time taken for one procedure. This may reduce the level of information necessary for policy makers to decide on the number of patients, which would undergo this procedure in a particular session

The extent of the cost reduction and quickness of return to work were not evaluated in this study.

CONCLUSION

Out patients hysteroscopic polyp resection by morcellation under local anesthesia has a high success rate and very low level of complications. Patients experience a mild level of intra operative pain and minimal post operative pain. Occurrence of other physical symptoms is rare. Thus, it is a well tolerated and very well accepted by patients in an outpatient setting.

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