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Hysteroscopy and removal of endometrial polyps: a Dutch survey

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Abstract

Objective: To evaluate current practice of Dutch gynaecologists in polyp removal.

Methods: All practicing gynaecologists in The Netherlands in 2003 were surveyed by a mailed self-administered questionnaire about polypectomy. Gynaecologists were asked about their individual performance of polypectomy: setting, form of anaesthesia, method and instrument used.

Results: The response rate was 74% (553 of 752 gynaecologists). Among the respondents, 455 (83%) stated that they removed polyps themselves. Polyps were most commonly removed in an inpatient setting (71%), under general or regional anaesthesia (77%), and under direct hysteroscopic visualization (69%). Gynaecologists working in a teaching hospital removed polyps more often in an outpatient setting compared to gynaecologists working in a non-teaching hospital (93 (39%) versus 36 (19%) $p < 0.001$).

Conclusion: In the Netherlands, outpatient polyp removal is not practiced on a large scale. However teaching hospitals are more often performing polypectomy in an outpatient setting. Therefore, we expect that there must be a tendency towards outpatient hysteroscopic removal of polyps for the future. Further research is required to assess the efficacy of polyp removal.

Introduction

Endometrial polyps are associated with abnormal uterine bleeding in both pre- and postmenopausal women. Its prevalence ranges from 20% in symptomatic premenopausal women up to 20 to 40% in women with postmenopausal bleeding (PMB).^{1,2}

Traditionally, endometrial polyps are removed by dilatation and curettage (D&C) under general anaesthesia. However, blind curettage has been shown to miss endometrial polyps in 50 to 85% of cases.²⁻⁴ A retrospective analysis showed that D&C for removal of endometrial polyps decreased from 45% to 14% in the period 1990 to 1996.⁴ In this same period hysteroscopic resection increased significantly from 12.7% to 50.5%.⁵ In the Netherlands, polypectomy is one of the most commonly performed surgical hysteroscopic procedures (31% of all surgical hysteroscopic procedures) and has the lowest complication rate (0.4%) compared to other surgical hysteroscopic procedures.⁶

New developments in hysteroscopic instrumentation (e.g. 5 Fr bipolar electrodes [Versapoint]) and smaller diameter hysteroscopic systems allow this type of surgery to be performed in an outpatient setting.⁷ In literature large series of outpatient hysteroscopic polypectomy have been described and it can be considered as an effective procedure.^{8,9} Furthermore, four studies have reported efficacy, cost-effectiveness and patient's satisfaction rates of outpatient hysteroscopy and outpatient hysteroscopic polypectomy to be better than in a day-case setting.¹⁰⁻¹³ When outpatient hysteroscopy was compared to day-case hysteroscopy it offered faster recovery, less time away from work and home and cost savings when women were randomized to either outpatient hysteroscopy or day-case hysteroscopy.^{11,12} For polyp removal it was demonstrated in a feasibility study, in 58 women with symptomatic endometrial polyps allocated to either inpatient or outpatient polypectomy, that ambulatory hysteroscopic polypectomy was efficacious and cost-effective.¹⁰ Furthermore, a randomized controlled trial demonstrated that, in a group of 40 women diagnosed with an endometrial polyp, outpatient polypectomy showed minimal intra-operative discomfort, faster recovery and was preferred by women when compared with day-case polypectomy.¹³

There is evidence that outpatient polyp removal is better than its traditional inpatient counterpart. However, there still is a lack of high-quality evidence regarding the efficacy of intrauterine polypectomy with respect to abnormal uterine bleeding, although the majority of gynaecologists advocate removal of endometrial polyps.¹⁴ Furthermore the utility of polyp removal is further confused by the variety of approaches now available.¹⁴

In contrast to all evidence in literature regarding outpatient hysteroscopic polyp removal, Clark *et al.*¹⁵ showed that still 90% of gynaecologists in the UK remove polyps in an inpatient

setting under general anaesthesia. The method most commonly performed, was dilatation and curettage (D&C). When we look at the situation in the UK and the evidence in literature, it seems that implementation of outpatient hysteroscopic polyp removal is progressing slowly. We therefore conducted a national questionnaire survey to assess the current practice regarding the removal of endometrial polyps in the Netherlands.

Material and Methods

For this study, all 752 practicing gynaecologists holding membership of the Dutch Society of Obstetrics and Gynaecology (NVOG) in 2003 were identified from the national database and were sent a questionnaire. The questionnaire was brief, explicit, had a structured format consisting of a series of closed questions. After pilot testing on seven members of the Dutch Working Committee of Gynaecological Endoscopy, the questionnaire was sent to all gynaecologists. Gynaecologists in training were not included. The survey included a covering letter and a prepaid response envelop. After eight weeks a single mailed reminder was sent to the non-responders.

The gynaecologists were asked whether they performed polypectomy for endometrial polyps themselves. Those that did were then requested to report about setting (inpatient or outpatient), form of anaesthesia (general, regional, local or none), method of removal (removal by D&C, removal by D&C following hysteroscopy or removal under direct hysteroscopic visualization) and type of hysteroscopic instrument used (mechanical instruments, 5 Fr electro-surgical instruments, resectoscope). A formal operating theatre with an anaesthesiologist present for general or regional anaesthesia was considered an inpatient setting. An outpatient setting was considered a setting where a patient could come in, have the procedure done and walk out again right after the procedure. Since general or regional anaesthesia requires an anaesthesiologist these two categories were considered as one entity. In parallel, the same was done for local or no anaesthesia. Respondents were asked to report whether they used the different modalities routinely, occasionally or never at all. The options that were chosen as a routine were used for further analysis. It was possible to leave questions open or give more than one answer to a question (e.g. general and regional anaesthesia as a routine).

Statistical analysis

The received information was collected in the statistical SPSS program (SPSS, version 12, SPSS Inc., Chicago, IL). For this study all gynaecologists were stratified to type of clinic in which they were working: teaching hospitals with a residency program for gynaecology (n=41) or non-teaching hospitals (n=59). Per answering option proportions of gynaecologists working in TH were compared with proportions of gynaecologists working in non-TH. Comparisons were

tested for statistical significance using the Chi-square test, a p-value < 0.05 was supposed to indicate statistical significance. The same was done for method of removal compared to form of anaesthesia, using Chi-square test to compare and test for statistical significance.

Results

There were 458 gynaecologists (61%) who responded the first time, whereas another 95 questionnaires were returned after the single mail reminder. In total, 553 gynaecologists responded, corresponding to a response rate of 74%.

Of these responders, 455 (83%) gynaecologists performed polypectomy themselves in the treatment of endometrial polyps. Answers about setting, anaesthesia, method and instrument were calculated as a percentage of the 455 gynaecologists that removed polyps themselves. There were 321 gynaecologists (71%) that removed polyps in an inpatient setting, 326 (77%) gynaecologists used general or regional anaesthesia and 290 (69%) gynaecologists choose removal under direct hysteroscopic vision as the routinely used method. Removal under direct hysteroscopic visualization was practiced routinely with mechanical instruments and the resectoscope by 197 and 159 gynaecologists respectively (48% and 38% respectively). An outpatient polypectomy setting was used by 129 (29%) of the gynaecologists and 98 (23%) gynaecologists used no or local anaesthesia. New 5 Fr electro-surgical instruments (e.g. bipolar electrode [Versapoint®] and monopolar snare) were used by 14% (56 gynaecologists) on a routine basis (Table 1).

Table 1. Current practice concerning setting, anaesthesia, method and instrument for removal of endometrial polyps, number of performing gynaecologists (%)

Routine	Total	Teaching (n=241)	Non-teaching (n=194)	p-value
Setting				
Inpatient	321 (71)	149 (62)	152 (78)	p<0.001
Outpatient	129 (29)	93 (39)	36 (19)	p<0.001
Anaesthesia				
General/ Regional	326 (77)	170 (70)	156 (80)	ns
Local/no anaesthesia	98 (23)	68 (28)	30 (15)	p=0.001
Method				
D&C	17 (4)	4 (1.6)	13 (6.7)	p=0.007
D&C after hysteroscopic localisation	115 (27)	58 (24)	57 (29)	ns
Removal under direct hysteroscopic vision	290 (69)	173 (72)	117 (59)	p=0.008
Instrument				
Mechanical	197 (48)	108 (44)	89 (46)	ns
5 Fr electrosurgical	56 (14)	37 (15)	19 (10)	ns
Resectoscope	159 (38)	94 (39)	65 (34)	ns

teaching: academic and non-academic teaching hospitals; ns: not significant

note: the denominators do not add up to 455 since it was possible to leave a question open

In teaching hospitals gynaecologists removed polyps significantly more in an outpatient setting as compared to gynaecologists in non-teaching hospitals (non-TH): 93 (39%) versus 36 (19%) ($p<0.001$). Local or no anaesthesia was used more in teaching hospitals compared to non-TH: 68 (28%) gynaecologists versus 30 (15%) gynaecologists ($p=0.001$). In non-TH significantly more gynaecologists (6.7%) were removing polyps by D&C (“blindly”) compared to the teaching hospitals (1.6%) ($p=0.007$), whereas gynaecologists in teaching hospitals made more use of the hysteroscope for direct removal (72% vs. 59%, $p=0.008$).

In case general or regional anaesthesia was used for polyp removal significantly more gynaecologists performed D&C following hysteroscopic localization when compared to removal under direct hysteroscopic vision (31% vs. 16%, $p=0.001$). If local or no anaesthesia was used the polyp was more often removed under direct hysteroscopic visualization (81% vs. 65%, $p=0.007$) (Table 2).

Table 2. Method of removal against form of anaesthesia: number of gynaecologists (%)

	General/regional anaesthesia	Local/no anaesthesia	Chi-square
Blind	16 (4)	3 (3)	ns
Blind following hysteroscopy	115 (31)	16 (16)	0.001
Under direct hysteroscopic vision	244 (65)	83 (81)	0.007
Total	375	102	

ns: not significant

Discussion

According to our study, the current practice for polypectomy in the Netherlands is removal in an inpatient setting, using general or regional anaesthesia. Gynaecologists remove polyps under direct hysteroscopic visualization using mechanical instruments or the resectoscope. The findings reported should be considered valid and generalisable in view of the response rate of 74%. This is because it is above the desirable response rate of 70%, above which the impact of non-response biases is negligible.¹⁶

In 2002 in the Netherlands 15,354 hysteroscopic procedures were performed: 11,428 diagnostic (74%) and 3,926 surgical (26%). The most commonly performed hysteroscopic surgical procedure was polypectomy.¹⁷ Hysteroscopic polypectomy is therefore an extensively used procedure, although its efficacy in the treatment of abnormal uterine bleeding is still matter of debate. There is high-quality evidence in favour of outpatient hysteroscopy and polyp removal. Four studies have reported efficacy, cost-effectiveness and patients satisfaction rates to be better in an outpatient setting compared to a day-case setting.¹⁰⁻¹³

In the Netherlands the outpatient setting for polyp removal was favoured by 29% of the gynaecologists. We related method of anaesthesia to method of removal. We found that the form of anaesthesia influenced method of removal. Under general or regional anaesthesia more gynaecologists removed polyps by D&C after hysteroscopic localization than with local or no anaesthesia (31% vs. 16%). When local or no anaesthesia was applied more gynaecologists removed polyps under direct hysteroscopic visualization compared to general or regional anaesthesia (81% vs. 65%). In the UK still 91% of the gynaecologists favoured an inpatient setting and the most favoured method for polyp removal there was D&C after hysteroscopic localization.¹⁵ Although we observed a difference regarding outpatient hysteroscopy between the Dutch situation and current practice in the UK, in both countries the current situation is still far away from the situation as it is described in literature. The differences between the UK and the Netherlands might be explained by time, since the situation in the Netherlands was

evaluated at a later time than in the UK. Furthermore the differences might be due to different health care systems.

When we look at the differences between teaching hospitals and non-TH, the outpatient setting and local or no anaesthesia were used more by gynaecologists in teaching hospitals. Hysteroscopic surgery for polyp removal was performed more by gynaecologists in teaching hospitals than in non-TH. Therefore, we stipulate that there must be a tendency towards outpatient hysteroscopic removal of polyps for the future, especially because the new generation gynaecologists are being taught to use the hysteroscope in an outpatient setting. This speculation is supported by the fact that another survey showed that in the UK 80% of the consultants without access to outpatient hysteroscopic facilities would like to have access to such facilities.¹⁸

In conclusion, we can say that although hysteroscopic polypectomy can successfully be performed without anaesthesia in an outpatient setting, outpatient polyp removal is not practiced on a large scale.^{10,13} As teaching hospitals are more often using an outpatient setting, we expect that there must be a tendency towards outpatient hysteroscopic removal of polyps for the future. Although further research is required to further assess the efficacy of polyp removal especially with respect to abnormal uterine bleeding, implementation of outpatient hysteroscopy and polyp removal has to be kept under surveillance.

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