

DILATATION AND CURETTAGE VERSUS PIPELLE METHOD

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ABSTRACT

BACKGROUND: Diagnostic dilatation and curettage is one of the routinely performed procedures in hospitals. It has long been known to be mandatory for the diagnosis of menstrual irregularities and postmenopausal bleeding. Pipelle method of endometrial sampling. It is a type of office endometrial biopsy which is usually performed as outdoor procedure. It does not require GA hence it is safer, less expensive and since it does not require hospital stay, it is also convenient for the patient. Pipelle is a plastic disposable curette requiring same skills as inserting an IUCD. The objective of this study was to compare pipelle method of endometrial sampling with the conventional method of diagnostic dilatation and curettage in terms of complications and adequacy of sample.

METHODS: This randomized control trial was conducted in obstetrics and gynaecology department of Holy Family Hospital from Jan 2001 to July 2002. A sample of 60 eligible patients was selected through simple random sampling.

Half of the 60 patients were randomized into group 1 and half into group 2. Group 1 patients underwent conventional method of diagnostic dilatation and curettage while group 2 underwent pipelle method in the outpatient department of obstetrics and gynecology, after preliminary examination and ultrasonography. Once the sample was obtained it was sent for histological examination the pathologist being blinded to the method of biopsy. SPSS version 8 was used for analysis.

RESULTS: Out of 30 patients of group 1, successful biopsies of 29 patients were taken through conventional method. On the other hand, out of 30 patients of group 2 pipelle method was successful in 28 of the patients. Out of 60 study participants, 78% had menorrhagia as the sole indication for biopsy. 90% of group 1 while 100% of group 2 had no complications as a result of respective procedures.

CONCLUSION: The numbers of complications are minimal with pipelle method of endometrial sampling. It also has an advantage of taking the biopsy at first outpatient visit thus the waiting time for the early diagnosis can be reduced.

KEY WORDS: D&C, Menstrual disturbances, Biopsy.

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INTRODUCTION

Diagnostic dilatation and curettage is one of the routinely performed procedures in hospitals. It has long been known to be mandatory for the diagnosis of menstrual irregularities and postmenopausal bleeding. Diagnostic dilatation and curettage can be diagnostic as well as therapeutic for example in cases menorrhagia a thorough curettage can be therapeutic and diagnostic. Mostly it is done for the diagnosis of hormonal imbalance and intrauterine lesions like precancerous and cancerous changes, benign polyps, endometrial

hyperplasia, endometriosis and atrophic endometrium. The diagnostic yield of curettage is especially high in cases of postmenopausal bleeding and metorrhagia.¹

Routinely dilatation and curettage is performed under general anesthesia (GA) which requires not only hospital stay for at least 24hrs but also relevant investigations for GA fitness. It creates unnecessary financial burden and inconvenience for the patients to stay in overburdened wards. Moreover most of the patients requiring dilatation and curettage are elderly and anemic, giving GA to such patients pose a great challenge for

the anesthetist.

The routine use of D&C is now being questioned as a standard procedure. Various instruments have been developed in order to simplify the procedure.²

We need a method which is convenient, less expensive and safer for the patient. For this purpose I would like to introduce Pipelle method of endometrial sampling. It is a type of office endometrial biopsy which is usually performed as outdoor procedure. It does not require GA hence it is safer, less expensive and since it does not require hospital stay, it is also

convenient for the patient. Pipelle is a plastic disposable curette requiring same skills as inserting an IUCD.

A critical review of 33 reports of 13,598 dilatation and curettage and 5,851 office biopsies showed that diagnostic dilatation and curettage had higher rate of complications than office biopsy.³ Another study shows that in the detection of endometrial carcinoma, pipelle is the best device in both premenopausal and postmenopausal with detection rates of 99.6% and 91% respectively.⁴ In one study the adequacy of the sample is around 87-97% of the time.⁵ There is no existing method which will sample the entire endometrium.⁶

In office sampling may be accomplished with the pipelle curette, all that is needed is a preoperative dose of non steroidal anti-inflammatory drug. Endometrial biopsy with a pipelle should be done routinely for the diagnosis of abnormal uterine bleeding. Pipelle is now being compared with different out door instruments of endometrial sampling for example it has been compared with Medscand endocurette.

The objective of this study was to compare pipelle method of endometrial sampling with the conventional method of diagnostic dilatation and curettage in terms of complications and adequacy of sample.

MATERIAL & METHODS

This randomized control trial was conducted in obstetrics and gynaecology department of Holy Family Hospital from Jan 2001 to July 2002. Married patients with menstrual disturbances needing biopsy were included in the study. Patients with suspected pregnancy, lost intrauterine contraceptive device (IUCD),cervical/endometrial polyps, cervical growth ,Pelvic Inflammatory Disease (PID),postmenopausal bleeding or cervical stenosis were excluded. A sample of 60 eligible patients was selected through sample random sampling.

Half of the 60 patients were randomized into group 1 and half into group 2. Group 1 patients underwent conventional method of diagnostic dilatation and curettage while group

2 underwent pipelle method in the outpatient department of obstetrics and gynecology, after preliminary examination and ultrasonography. Patients of group1 were admitted for diagnostic dilatation and curettage while the other group was passed through pipelle method of endometrial sampling. Once the sample was obtained it was sent for histological examination the pathologist being blinded to the method of biopsy.

All data was recorded on a proforma. SPSS version 8 was used for analysis.

RESULTS

Out of 30 patients of group 1, successful biopsies of 29 patients were taken through conventional method. On the other hand, out of 30 patients of group 2 pipelle method was successful in 28 of the patients.

FIG 1: INDICATIONS FOR BIOPSY (n=60)

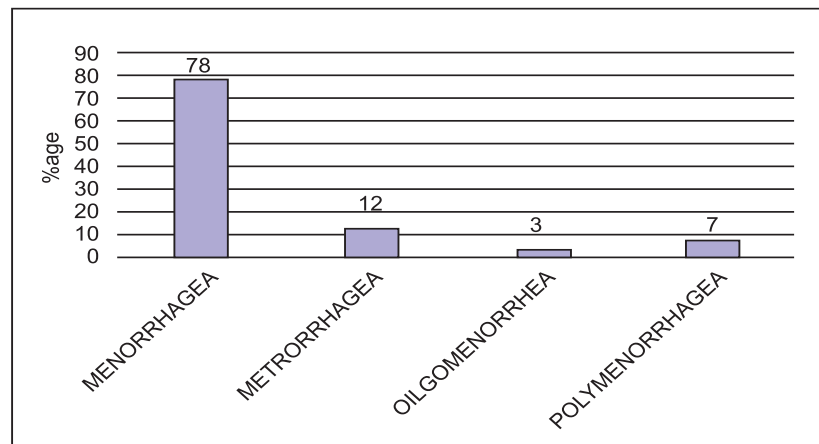


TABLE 1: QUANTITY OF SAMPLE FOR BIOPSY

Amount Of Sample	Conventional Method (n=30)	Pipelle Method (n=30)
Copious	9(30)	6(20)
Adequate	12(40)	10(33)
Scanty	8(27)	12(40)
Inadequate	1(3)	2(7)

TABLE 2: COMPLICATIONS AS A RESULT OF PROCEDURES

COMPLICATIONS	CONVENTIONAL METHOD	PIPELLE METHOD
No complication	(n=30)	(n=30)
Perforation	27(90.04)	30(100)
Bleeding	Nil	Nil
Cervical trauma	2(6.66)	Nil
	1(3.3)	Nil

DISCUSSION

Due to the growing interest of pipelle sampling in the world, we were naturally attracted to the idea of introducing this simple, yet important procedure in our hospital. As the pipelle curette does not require cervical dilatation due to its smaller

diameter and flexibility, the procedure can be carried out without local or general anesthesia in the outpatient department, thus avoiding hospitalization and risk of anesthesia.

In our study the amount of sample was the most important factor, because if failed in this respect, then

the whole idea of introducing this method was useless. Out of 30 patients under going conventional method, successful biopsies of 29 patients were taken while in one patient the sample could not be taken due to severe cervical stenosis. On the other hand, out of 30 patients, pipelle method was successful in 28 of the patients. In one patient there was acute retroversion of the uterus, while in the other patient there was gross abnormality of the uterine cavity due to multiple intramural fibroids, thus the pipelle could not be introduced into these patients. It has been shown in the results that there was adequate sample in 93.3% of the cases which is in accordance of what Vilas et al⁵ studied in his environment i.e. he was able to obtain adequate samples in around 87-97% of the times. There were 6.6% of the cases in which there was inability to obtain an adequate sample. Akhtar⁷ (1999) has also shown in his study that the amount of sample which was inadequate was very small; the percentage of his study was comparable to that of this study, which a better percentage than what Alison Brand³ is found in his study i.e. he was unable to obtain adequate samples in 22% of the patients. However he studied with a larger group of patients therefore it is assumed that our percentages would be comparable to these if the sample size of our study were larger. Also in his study severe pain during the outpatient procedure was felt in 6.7% of the patients while we came across, in our study that none of the patients felt severe pain, while 6 patients felt dysmenorrhea like pain which was graded as moderate and the rest of the patients regarded the procedure as nothing more than a vaginal examination, which was described as mild discomfort.

Pipelle biopsy is found to be least painful than other outpatient biopsy instruments like Novek catheter or Vabra aspirator⁸. In our study twenty-four out of thirty patients described pain as mild discomfort during the procedure which is comparable with the results of Silver et al⁹ where 49 (89%) out of 55 patients described the pain as none to moderate.

Forthergill et al¹⁰ in a comparison between formal curettage and pipelle method reported an accuracy of 87.7% in their cases. They recommended the use of pipelle sampler for endometrial biopsy in premenstrual patients with menstrual irregularities on their first visit to the outpatient department (if they were not bleeding) and later on to be followed up with hysteroscopy to exclude endometrial polyp. This way they have claimed to avoid 600 diagnostic dilatation and curettages annually. This is what we are interested in i.e. to reduce the number of diagnostic dilatation and curettages to a minimum.

As regards the level of expertise required for the procedures, there were five diagnostic dilatation and curettage for which senior registrar was called among those there were two cases in which there was suspicion of inadequate sample, while in one case there was gross abnormality of the endometrial cavity and in two cases the senior registrar was called due to inability to dilate the cervix by the medical officer. The rest of the 25 cases of diagnostic dilatation and curettage were performed by medical officers, none of the cases were performed by house officer due to lack of expertise to perform this procedure. On the other hand, senior registrar was called in none of the pipelle sampling and most of the sampling i.e. 20 cases were performed by house officer in the outpatient department and only 10 were performed by the medical officer even these cases were not complicated but they were performed by the medical officer for teaching purpose. This means that less expertise are required for pipelle sampling then diagnostic dilatation and curettage. Although medical officers mostly do dilatation and curettage but some level of guidance from senior professionals is also required by them. Obviously such cases are to be performed in a tertiary care hospital, increasing in their work load, which are already overburdened¹¹. Moreover, none of the house officers were able to perform dilatation and curettage.

While comparing the amount of trauma to the patient or post pro-

cedure complications, none of the patients under going pipelle biopsy method suffered from any complication while two patients in whom the sample were taken through conventional method suffered from excessive bleeding and one had cervical laceration during dilatation due to forceful tug on the vulsellum forceps. There were no perforations of the uterus in any of the patients.

Thus if the biopsies are taken through pipelle method, then the patients need not to be referred to a tertiary hospital, but these can be easily and harmlessly performed in the periphery after a little coaching.

In order to give a general idea of our health status both the public and private sectors are providing medical facilities in the country. The present national infrastructure of health facilities are 906 hospitals, 4590 dispensaries 550 rural health centers 5308 basic health units and 98264 hospital beds. However the availability of one doctor for 1466 persons, one dentist for 29405 people, one nurse for 3347 and one hospital bed for 1517 persons reflect poorly on the health status of the country¹¹.

CONCLUSION

It is concluded in this study that pipelle biopsy is definitely a useful and cost effective method. It is easier to perform than dilatation and curettage and convenient for both the patient and the physician. The numbers of complications are minimal with pipelle method of endometrial sampling. It also has an advantage of taking the biopsy at first outpatient visit thus the waiting time for the early diagnosis can be reduced.

For future studies, emphasis is on taking the biopsies of the patients presenting with postmenopausal bleeding as these are the patients in whom we mostly need to take an endometrial sample. This would require taking a larger sample size as well as plenty of time. It is further pointed out that although the results are quite comparable with similar other studies performed nationally and internationally but the sample size should have been larger for more

authentic results. We recommend wider research of the pipelle method.

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CONFLICT OF INTEREST

None declared.

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Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.