



## Histopathological study of endometrial Samplings

Nanda Patil J, Sujata Kanetkar\*

Department Of Pathology, Krishna Institute Of Medical Sciences, Deemed University, Karad, Maharashtra, India, Pin: 415539



### Article History:

Received on: 26 Jun 2020

Revised on: 27 Jul 2020

Accepted on: 04 Jul 2020

### Keywords:

Histology,  
pathological,  
endometrial,  
Samplings

### ABSTRACT

The present study was a two-year prospective cross-sectional study done to diagnose and categorize lesions of endometrium on endometrial sampling included a total of 153 cases, of which 111 were curettage samples, and 42 were biopsy samples. Of the 153 cases, the indication for performing endometrial sampling was AUB in 131 cases and infertility in 22 cases. Primary infertility constituted 64% of all the facts of infertility. AUB was common in perimenopausal age group, and infertility was commonly seen in 20-30 years age group and characteristic in multiparous Precursor lesions were the most widely recognized diagnosis on histopathology in 23.7. In the category of regular physiological pattern, 72.2% of cases were in the reproductive age group, —36.3 % cases presented with inability to conceive and clinical diagnosis of infertility. Tumour like lesions had a majority of cases (55.5%) in the perimenopausal group. Intermenstrual bleeding was the most widely recognized symptom of presentation. All the cases of malignant lesions were in the postmenopausal age group and all cases presented with postmenopausal bleeding. About 80% of cases were correctly diagnosed clinically. Endometrioid endometrial carcinoma was seen in 60% cases, followed by carcinoma extending from cervix in 30 % cases and carcinosarcoma in 10% cases.

### \*Corresponding Author

Name: Sujata Kanetkar

Phone: +91 9975107966

Email: Dr\_Kanetkar@Yahoo.Com

ISSN: 0975-7538

DOI: <https://doi.org/10.26452/ijrps.v11i3.2662>

Production and Hosted by

IJRPS | [www.ijrps.com](http://www.ijrps.com)

© 2020 | All rights reserved.

for diagnosis of endometrial lesions. (Lampe *et al.*, 1995)

Endometrial testing incorporates both endometrial biopsy and endometrial curettage examples which is protected and successful demonstrative advance in the assessment of irregular uterine draining and fruitlessness. At times it is restorative too. Endometrial biopsies and cuttings are among the most widely recognized tissue examples got which present an extraordinary test for the careful pathologist.

### INTRODUCTION

Endometrial lesions presenting as abnormal uterine bleeding, abdominal pain, menstrual irregularities and infertility form the widely recognized presenting complaints in ladies of regenerative age and perimenopausal women. Histopathological diagnosis of endometrial samplings is the highest quality level

Decoding the biopsy material demands a genuine strategy that thinks about various segments, including calm history, the specific requesting of the clinician playing out the biopsy and valuation for the obstructions, potential entrapments, and motley group of models experienced in the little regions. The purpose of the study was to diagnose and categorize lesions of endometrium on endometrial sampling.

## MATERIALS AND METHODS

The present study was a two-year prospective cross-sectional study which was carried out at Department of Pathology in tertiary care hospital. Ethical clearance for the study was obtained from the Institutional Ethical Committee KIMSUDU, Karad. A total of 153 cases of endometrial sampling (endometrial biopsy and curettage) were enrolled in the study. Based on the 80% average for the past two years of hospital statistics, the sample size was calculated as 100. However, during the study period, 153 patients satisfied the selection criteria, and they were enrolled in the study. Informed and written consent for the procedure and research was taken before undertaking the procedure. All samples of endometrial curettage and biopsies received from our hospital, well as referred from other hospitals from the periphery were included. The slides and blocks referred to our institute for review were also included (history and separate relevant test report; other essential data was collected from referring doctors).except for pregnancy-related conditions. Clinical details were obtained from the case file of the patients.

### Collection of specimens and grossing techniques

Endometrial biopsy and curettage specimens were received in 10% formalin and allowed to fix overnight. The material was emptied on filter paper. The aggregate weight and size of the sample were noted. The endometrial material and blood clots were separated and were processed separately.

### Algorithm for an examination of endometrial samples

As such, there is no specific algorithm for the reporting of endometrial biopsy. A checklist is suggested below for endometrial biopsy. This gives a proper approach to the reporting of endometrial samples.

## RESULTS AND DISCUSSION

The present study was done as a two-year prospective cross-sectional study to evaluate the clinical, radiological and histopathological findings of endometrial samplings derived by curettage and biopsy.

The present study included both cases of AUB and infertility. Out of the total 153 cases, 111 cases (72%) were of curettage, and 42 cases (28%) were biopsy. More number of curettage specimens can be attributed to the fact that curettage is diagnostic and therapeutic as well. Also, curettage obtains material from all the six quadrants of the endometrium as compared to a biopsy which is just from one site

and so samples endometrium more adequate.

The present study also revealed a significant number of cases in the post-menopausal age group. Most of the cases here had inadequate material may be due to the menopausal status. Also, all the cases of carcinoma and 9 out of 36 cases of hyperplasia were in the age group. The higher incidence of cases in the post-menopausal age group was not in concordance with other studies. This may be because the research was conducted with many referrals from nearby villages.

In cases of infertility, a majority of cases, 18 (81%) were in the age group of 21-30 years. (Girish and Manjunath, 2011; Nisa, 1983) (62%) also found a majority of cases in the age group of 21-30 years. The study showed a majority of cases, 69% were multiparous, followed by 18% primiparous and 13% cases were nulliparous. This was in concordance with (Afghan and Yasmeen, 2013; Khan *et al.*, 2011) In the present study, 29.4% patients presented with heavy menstrual bleeding, followed by 25.4% with post-menopausal bleeding. Other complaints were heavy prolonged menstrual bleeding, intermenstrual bleeding and infertility. (Kunda and Anupam, 2015; Khan *et al.*, 2011) also found heavy menstrual bleeding to be the most widely recognized complaint in their study. More number of cases presented with post-menopausal bleeding in the present study; this is because, in this study, there were more samples in menopausal age group than other studies.

All the cases in the present study were grouped into seven categories according to histopathological diagnosis.

### Normal physiological endometrium

This category included 21.7% of cases. The maximum number of patients in this category was less than 40 years. It was in concordance with the study done by (Baral and Pudasaini, 2011; Kunda and Anupam, 2015). In this category maximum numbers of patients had secretory phase endometrium (66%), but out of total cases, it accounted to 14.5 % which was in concordance with the study done by (Kunda and Anupam, 2015) (15%).169The percentage of proliferative phase endometrium in present study was 5.8% which was comparable with (Sajitha *et al.*, 2014). Just one instance of atrophic endometrium in the current investigation gave post-menopausal dying. This occurrence is lower than in different surveys. The reason for seeping in atrophic endometrium isn't known. It is postulated that thin-walled veins superficial to expanding cystic glands make the vessels vulnerable to injury and leads to excessive uterine bleeding.18212 cases out of

21 were showing features of exogenous hormonal effect; incidence being 7.8 % in total cases (153), similar to finding with (Sajitha *et al.*, 2014; Parmar and Desai, 2013). All these cases had a history of hormonal intake for the treatment of their underlying cause. There were 5 cases of disordered proliferative endometrium, 3.8% of total cases (5/153). It was comparable to a study done by (Moghal, 1997) (5%). 172 All these cases were in the perimenopausal age group and were clinically diagnosed as endometrial hyperplasia. 2 of these cases also radiologically had hyperplasia. The instances of cluttered proliferative endometrium ought to be followed up as this example lies at one of the finishes of proliferative sores of the endometrium which incorporates carcinoma at the opposite end with mediating phases of hyperplasia.

Four cases of luteal phase defect were observed (2.6% in total cases). All these cases presented with infertility and had a lag in the LMP by more than seven days.

#### Inflammatory conditions

This study revealed 18 cases (12%) of endometritis out of 153 cases which were comparable to the studies done by Muzaffar *et al.* (2005) (13%) and Abid *et al.* (2014) (12%). The maximum numbers of cases in this category were from perimenopausal age group. Two instances of endometritis were in the post-menopausal age group.

On investigation, one of them had cervical stenosis causing endometritis, and the cause in the other patient was not known. Chronic nonspecific endometritis consisted of 11 cases (7.6%) out of 153 cases.

#### Tumour like lesions

In the present study, 9 cases (5.9%) out of a total of 153 cases presented with a tumour-like lesion. This incidence was comparable to other studies. This category included endometrial polyps and metaplasia. The frequency of endometrial polyps in the present study was 5.2% (8/153) which was comparable to the study done by (Sajitha *et al.*, 2014). The maximum of cases endometrial polyp presented in the perimenopausal age group which was comparable with the study done by (Doraiswami *et al.*, 2011)

#### Precursor lesions

This category included 36 cases (23.6%) out of 153 cases which were endometrial hyperplasia without atypia (31) and atypical hyperplasia (5)—maximum numbers of patients (41.7%) suffering from this condition where in perimenopausal age group.

It could be concluded based on these findings that

more than half of the patients presenting with infertility have no cause in the endometrium. Granulomatous endometritis was found in 1 case (4.5%). This percentage was higher as compared to other studies. PCR for tuberculosis was done in 11 cases of infertility which were diagnosed as secretory or normal physiological endometrium on histopathology. Out of the five came to be positive for tuberculosis. ZN staining was also done, which was positive in only 2 cases. This revealed the low sensitivity of the histopathology and ZN staining in detecting tuberculous endometritis. A similar result was observed in a study done by (Thangappah *et al.*, 2011)

#### CONCLUSIONS

In light of this study, it can be concluded that abnormal uterine bleeding is the most widely recognized indication to perform endometrial sampling. Women in the perimenopausal age group should be investigated thoroughly to rule out endometrial hyperplasia as it is a precursor lesion and hence close follow up of these cases is required. Also, evidence of disordered proliferative endometrium should be followed as this lesion lies at one end of the proliferative lesions of the endometrium with carcinoma at the other end. Endometrioid endometrial carcinoma is the most widely recognized endometrial malignancy seen. Primary infertility is more. In diagnosing tuberculosis, the sensitivity of PCR is more as compared to histopathology and ZN staining. With modern diagnostic modalities, endometrial biopsy still plays an essential role in diagnosing endometrial lesions.

#### Conflict of interest

None to disclose.

#### Funding support

KIMDSU Karad.

#### REFERENCES

- Abid, M., Hashmi, A. A., Malik, B., Haroon, S., Faridi, N., Edhi, M. M., Khan, M. 2014. Clinical pattern and spectrum of endometrial pathologies in patients with abnormal uterine bleeding in Pakistan: need to adopt a more conservative approach to treatment. *BMC Women's Health*, 14(1):132–132.
- Afghan, S., Yasmeen, A. 2013. Abnormal Uterine Bleeding (AUB) A Clinicopathological Study of 150 Cases. *Ann Pak Inst Med Sci*, 9(4):201–204.
- Baral, R., Pudasaini, S. 2011. Histopathological pattern of endometrial samples in abnormal uterine bleeding. *Journal of Pathology of Nepal*, 1(1):13–16.

- Doraiswami, S., Johnson, T., Rao, S., Rajkumar, A., Vijayaraghavan, J., Panicker, V. K. 2011. Study of Endometrial Pathology in Abnormal Uterine Bleeding.
- Girish, C. J., Manjunath, M. L. 2011. Morphological patterns of endometrium in infertile woman-a prospective study. *Int J Appl Biol Pharm Technol*, 2:512-532.
- Khan, S., Hameed, S., Umber, A. 2011. Histopathological pattern of endometrium on diagnostic D & C in patients with abnormal uterine bleeding. *Annals of King Edward Medical University*, 17:166-166.
- Kunda, J., Anupam, S. 2015. Histopathological study of endometrium in abnormal uterine bleeding in reference to different age groups, parity and clinical symptomatology. *IMSEAR*.
- Lampe, B., Kürzl, R., Hantschmann, P. 1995. Reliability of Tumor Typing of Endometrial Carcinoma in Prehysterectomy Curettage. *International Journal of Gynecological Pathology*, 14(1):2-6.
- Moghal, N. 1997. Diagnostic value of endometrial curettage in abnormal uterine bleeding-a histopathological study. *Journal-Pakistan Medical Association*, 47:295-299.
- Muzaffar, M., Akhtar, K. A. K., Yasmin, S., Rehman, M., Iqbal, W., Khan, M. A. 2005. Menstrual irregularities with excessive blood loss: a clinicopathological correlation. *Journal-Pakistan Medical Association*, 55(11):486-486.
- Nisa, Z. 1983. The Value of Endometrial Biopsy in Infertility. *JPMA. The Journal of the Pakistan Medical Association*, 33(12):304-305.
- Parmar, J., Desai, D. 2013. Study of endometrial pathology in abnormal uterine bleeding. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*, 2(2):182-185.
- Sajitha, K., Shetty, K., Hegde, P., KishanPrasad, H. L., Padma, S., Permi, H. 2014. Study of histopathological patterns of endometrium in abnormal uterine bleeding. *CHRISMED Journal of Health and Research*, 1(2):76-76.
- Thangappah, R. B. P., Paramasivan, C. N., Narayanan, S. 2011. Evaluating PCR, culture & histopathology in the diagnosis of female genital tuberculosis. *The Indian journal of medical research*, 134(1):40-40.