

Critical Analysis of Carcinoma Endometrium Histopathology

Dr. Hanumant V. Nipanal^{1*}, Dr. S. Susmitha²

¹Assistant professor, Department of Obstetrics and Gynecology, Gadag Institute of Medical Sciences (GIMS), SH 6, Malasamudra, Karnataka, India

²Assistant Professor, Department of Pathology, Gadag Institute of Medical Sciences (GIMS), SH 6, Malasamudra, Karnataka, India

*Corresponding author: Dr. Hanumant V Nipanal | Received: 13.02.2019 | Accepted: 23.02.2019 | Published: 28.02.2019
DOI: [10.21276/sijog.2019.2.2.6](https://doi.org/10.21276/sijog.2019.2.2.6)

Abstract

Purpose of the study: This study was undertaken to evaluate histopathological spectrum of endometrial cancer in women undergoing surgery for carcinoma endometrium in a tertiary hospital in South India for a period of 5 years (2007-2012). **Design:** It is retrospective study. **Setting:** This study was revive of medical records in the Department of Obstetrics and Gynaecology in collaboration with the Department of medical record section, JIPMER, Pondicherry, India, from January 2007 to December 2012. **Population:** The subjects included 121 women who underwent surgery for carcinoma endometrium during the study period. **Materials and Methods:** The medical records of all patients who underwent surgery for carcinoma endometrium were revived. Stage of the disease, surgery performed, co-existing risk factors like diabetes, hypertension and obesity, prophylactic antibiotics, intra operative and postoperative studied. **Main outcome measures:** Out of the 121 women who underwent surgery for endometrial carcinoma, majority 47 (39%) of them were in the age group of 51-60 years. Majority of women (94%) presented with postmenopausal bleeding. All 121 patients underwent extrafascial hysterectomy and bilateral salpingo-oophorectomy. Surgicopathological staging showed majority early stage. Mean duration of hospitalization was 14 days and 66 patients received postoperative radiotherapy. **Results:** In our study majority were endometrioid adenocarcinoma (91.74%), followed by serous carcinoma (4.13%) and mixed cell carcinoma (1.65%) with least being leiomyosarcoma (0.83%). Complex atypical hyperplasia was present in One patient (0.83%). **Conclusion:** Endometrioid adenocarcinoma is most common histopathological type of carcinoma endometrium in south India.

Keywords: Carcinoma endometrium, histopathological spectrum of Ca endometrium, extrafascial hysterectomy.

Copyright © 2019: This is an open-access article distributed under the terms of the Creative Commons Attribution license which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use (NonCommercial, or CC-BY-NC) provided the original author and source are credited.

INTRODUCTION

Endometrial cancer is the most common malignancy of the female genital tract in developed countries and second to cervical cancer in India [1]. Endometrial cancer is common in western women, and the rates are very high; however in India, the rates are as low as 4.3 per 100,000 [2]. The estimated incidence is 15–20 per 100,000 women per year. Sporadic cases account for 90% of endometrial carcinoma, while the remaining 10% arise from a genetic background. Endometrial cancer predominately affects post menopausal women; however 15-25% of cases are diagnosed before menopause. The lifetime risk of endometrial cancer is 2.6% with median age of diagnosis at 65 years. Endometrial cancer is not amenable to screening, hence needs to be managed effectively as soon as diagnosis is made. Though quite a lot of studies have been conducted in this area, still there are controversies regarding few issues in its management.

Prognosis depends on the histological subtype, depth of invasion into myometrium and lymph node involvement [3-7]. Owing to the fact that almost 75% of cases are diagnosed before extra uterine spread of disease, endometrial cancer is considered as a 'curable cancer'. The overall 5-year survival rate is very good when the disease is confined to the uterus.

Surgery remains the gold standard of treatment for this cancer. The aim of this article was to evaluate histopathological spectrum of endometrial cancer in women undergoing surgery for carcinoma endometrium in a tertiary care hospital in South India.

Aim and Objectives

This study was undertaken to evaluate histopathological spectrum of endometrial cancer in women undergoing surgery for carcinoma endometrium in a tertiary hospital in South India for a period of 5 years (2007-2012).

METHODS

It is a retrospective review of case records from medical record section from January 2017 to December 2012 in tertiary care hospital south India. There were 121 women who underwent surgery for carcinoma endometrium during the study period.

Type of Study: It is a single group retrospective study.

Inclusion Criteria

Those who underwent surgery as primary mode of treatment for carcinoma endometrium in designed study period.

Exclusion Criteria

All carcinoma endometrium patients who have received other modality of treatment as primary treatment.

Parameters Studied

Histopathological report, Stage of the disease, surgery performed, co-existing risk factors like diabetes, hypertension and obesity, prophylactic antibiotics, intra operative and post operative details and followed up events.

For statistical calculation Microsoft excel, SPSS and graph pad were used.

RESULTS

Out of the 121 women who underwent surgery for endometrial carcinoma, majority 47 (39%) of them were in the age group of 51-60 years with minimum age 33 years and maximum age 70 years with mean age 56.32 years. Among 121 subjects 113(93%) postmenopausal women. Majority 97(80%) subjects were multiparous. One subject was unmarried. Majority of women (94%) presented with postmenopausal bleeding while the others had abnormal uterine bleeding.

Eighty three patients had medical risk factors for carcinoma endometrium such as diabetes, obesity, hypertension in varying combinations or alone.

All 121 patients underwent extrafascial hysterectomy and bilateral salpingo-oophorectomy. In addition lymph node dissection was carried out in 6 women and 15 had omental biopsy in suspicion of higher stage of the disease. For 1 patient partial vulvectomy and 1 suboptimal debulking done.

Surgicopathological Staging

Fifty three patients were in stage 1A, 32 were 1B, 12 were stage 2, 13 were stage 3 and 1 patient was stage 4 who had received preoperative radiation (Table-1).

Histopathological report of all subjects detailed in table-2.

Table-1: Stage wise distribution of subjects after Histopathology report

Stage	Subjects	Percentage
1AG1	44	36.36
1AG2	7	5.79
1AG3	6	4.96
1BG1	19	15.70
1BG2	4	3.31
1BG3	8	6.61
2G1	4	3.31
2G2	3	2.48
2G3	3	2.48
3AG1	2	1.65
3AG2	5	4.13
3AG3	1	0.83
3BG1	2	1.65
3BG2	2	1.65
3BG3	1	0.83
3C1G3	1	0.83
3C2G1	2	1.65
3C2G2	1	0.83
3C2G3	1	0.83
4AG3	1	0.83
4B	1	0.83
Atypical hyperplasia	1	0.83

Table-2: Histopathological examination reports

HPE/variants	Total	Percentage
Endometrioid adeno ca	111	91.74
Mucinous ca	0	0
Serous ca	5	4.13
Clear cell ca	1	0.83
squamous cell ca	0	0
mixed cell ca	2	1.65
Undifferentiated	0	0
complex atypical hyperplasia	1	0.83
Leomyosarcoma	1	0.83

All patients were given prophylactic antibiotics just before the procedure. Adequate intra and post operative care was given as per the hospital standard protocol. Mean duration of hospitalization was 14 days in patients with uneventful postoperative course and was up to 33 days in patients with wound infection. Sixty six patients received postoperative radiotherapy.

DISCUSSION

Surgical approach and accurate staging is the gold standard therapy in the primary management of patients with endometrial cancer.⁸ Surgical treatment for stage 1 endometrial cancer includes peritoneal cytology sample, total hysterectomy, bilateral adnexectomy and pelvic (at least 15 lymph nodes) lymphadenectomy up to the renal vessels. The similar protocols had been followed in our subjects wherever applicable.

More extensive parametrial resection (radical hysterectomy) does not improve the oncologic outcome in patients with stage 1 endometrial cancer [9]. The resected uterus should be examined intra-operatively, with or without frozen section, to assess the extent of the tumor.

Definitive histologic grade, myometrial invasion and lymph node involvement may differ substantially from intra-operative gross assessment and frozen section results [9-12]

In our study majority were endometrioid adenocarcinoma (91.74%), followed by serous carcinoma (4.13%) and mixed cell carcinoma (1.65%) with least being leomyosarcoma (0.83%). Complex atypical hyperplasia was present in One patient (0.83%). No cases of mucinous, squamous and undifferentiated carcinomas found in our study.

CONCLUSION

Endometrioid adenocarcinoma is most common histopathological type of carcinoma endometrium in south India.

Limitations

Possibility missing data is limitation Since the study was case records review of retrospective study.

Acknowledgements

I would like to thank S Sushmitha for her expert advise and encouragement, dr. soubhagya R Talawar and Ravindra P N for his brilliance in statistics.

Disclosure of Interests

The authors have no conflict of interests to declare.

Author contributions

Dr. Hanumant V Nipanal: Manuscript preparation, data collection and analysis

Dr. S Susmitha: Manuscript preparation.

Details of ethics approval

This study has been approved by Jawaharlal Institute of Postgraduate Medical Education and Research (JIPMER), Puducherry, India-605006, research committee and institute ethics sub-committee (human studies).

REFERENCES

- Suri, V., & Arora, A. (2015). Management of Endometrial Cancer: A Review. *Rev Recent Clin Trials*, 10(4):309-316.
- Balasubramaniam, G., Sushama, S., Rasika, B., & Mahantshetty, U. (2013). Hospital-based study of endometrial cancer survival in Mumbai, India. *Asian Pacific Journal of Cancer Prevention*, 14(2), 977-980.
- Ries, L. A. G., Reichman, M. E., Lewis, D. R., Hankey, B. F., & Edwards, B. K. (2003). Cancer survival and incidence from the Surveillance, Epidemiology, and End Results (SEER) program. *The oncologist*, 8(6), 541-552.
- Gultekin, M., Yildiz, F., Ozyigit, G., Beyaz, H., Hayran, M., Kose, F., ... & Ayhan, A. (2012). Comparison of FIGO 1988 and 2009 staging systems for endometrial carcinoma. *Medical Oncology*, 29(4), 2955-2962.
- Ahmedin Jemal, D. V. M., Tiwari, R. C., Murray, T., Ghafoor, A., Samuels, A., Ward, E., ... & Thun, M. J. (2004). Cancer statistics. 2004. *CA Cancer J Clin*, 54(1), 8-29.
- Jemal, A., Siegel, R., Ward, E., Hao, Y., Xu, J., Murray, T., & Thun, M. J. (2005). Cancer statistics CA cancer. *J Clin*, 55, 10-30.

7. Creasman, W. T., Morrow, C. P., Bundy, B. N., Homesley, H. D., Graham, J. E., & Heller, P. B. (1987). Surgical pathologic spread patterns of endometrial cancer: a Gynecologic Oncology Group study. *Cancer*, 60(S8), 2035-2041.
8. Halkia, E., Kalinoglou, N., & Spiliotis, J. (2012). Surgical management of endometrial cancer. A critical review. *Journal of BUON*, 17(4), 637-643.
9. Zum Zervixkarzinom, L. (2008). zum Endometriumkarzinom und zu den Trophoblasttumoren, Kommission Uterus der AGO eV (Hrsg.), 1. Aufl. Zuckschwerdt, München Wien New York.
10. Han, C. H., Lee, K. H., Lee, H. N., Kim, C. J., Park, T. C., & Park, J. S. (2010). Does the type of hysterectomy affect the prognosis in clinical stage I endometrial cancer?. *Journal of Obstetrics and Gynaecology Research*, 36(3), 581-587.
11. Furukawa, N., Takekuma, M., Takahashi, N., & Hirashima, Y. (2010). Intraoperative evaluation of myometrial invasion and histological type and grade in endometrial cancer: diagnostic value of frozen section. *Archives of gynecology and obstetrics*, 281(5), 913-917.
12. Pristauz, G., Bader, A. A., Regitnig, P., Haas, J., Winter, R., & Tamussino, K. (2009). How accurate is frozen section histology of pelvic lymph nodes in patients with endometrial cancer?. *Gynecologic oncology*, 115(1), 12-17.