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*Original Article*

# Prognostic factors implicated in endometric cancer patients: A hospital based study

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***ABSTRACT:***
**Background:** The most common malignancy of the female genital tract in industrialized countries is endometrial carcinoma. The present study was planned to assess different prognostic factors implicated in endometric cancer patients. **Materials & methods:** The present study included assessment of different prognostic factors implicated in endometric cancer patients. Data records of all the patients with confirmed diagnosis of endometrial carcinoma admitted to the department of gynecology in a time period of five years were screened. All the results were compiled in Microsoft excel sheet and were analysed by SPSS software. **Results:** Data records of a total of 100 patients with endometrial carcinoma were analysed. 71 percent of the patients were more than 50 years of age, while 29 percent of the patients were less than 50 years of age. Significance results obtained while comparing the distribution of patients divided on the basis of age and menopausal state. Majority of the patients (62 percent patients) belonged to stage I of surgical staging. Lymph node metastasis was present in 23 percent of the patients while it was absent in 77 percent of the patients. **Conclusion:** It is important for segregating the risk factors of endometrial carcinoma for improving the prognosis of the patients
**Key words:** Cancer, Endometrial, Prognostic.

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## INTRODUCTION

The most common malignancy of the female genital tract in industrialized countries is endometrial carcinoma. Most common age of occurrence of endometrial carcinoma is after the menopause. Although most endometrial carcinomas are detected at low stage, there is still a significant mortality from the disease.[1-3] In postmenopausal women, prolonged life expectancy, changes in reproductive behavior and prevalence of overweight and obesity, as well as hormone replacement therapy use, may partially account for the observed increases of incidence rates in some countries.[1]Unfortunately, no consensus exists on which predictive or prognostic factors that should be used and how to combine them in the definition of suitable-risk groups.Three prospective randomized trials of low-risk, medium-risk, and high-risk cancers have been performed in Sweden and some other European countries. Vaginal brachytherapy, external beam pelvic radiation, and adjuvant chemotherapy were addressed in these studies.[4-6] Hence; the present study was planned to assess different prognostic factors implicated in endometric cancer patients.

## MATERIALS & METHODS

The present study was conducted in the department of gynaecology and obstetrics of the medical institute and it included assessment of different prognostic factors implicated in endometric cancer patients. Ethical approval was obtained from institutional ethical committee and written consent was obtained after explaining in detail the entire research protocol. Data records of all the patients with confirmed diagnosis of endometrial carcinoma admitted to the department of gynecology in a time period of five years were screened. Inclusion criteria for the present study included:

- Patients with histopathologic confirmed diagnosis of endometrial carcinoma
- Patients in which follow-up records were present,
- Patients with negative history of presence of any other systemic illness

All the results were compiled in Microsoft excel sheet and were analysed by SPSS software.

## RESULTS

In the present study, data records of a total of 100 patients with endometrial carcinoma were analysed. 71 percent of the patients were more than 50 years of age, while 29 percent of the patients were less than 50 years of age. 59 percent of the patients were in post-menopausal state while 41 percent of the patients were in pre-menopausal state. Nulliparous parity was seen in 48 percent of the patients while Parrous parity was seen in 52 percent of the patients. Significance results obtained while comparing the distribution of patients divided on the basis of age and menopausal state. Majority of the patients (62 percent patients) belonged to stage I of surgical staging. Lymph node metastasis was present in 23 percent of the patients while it was absent in 77 percent of the patients. Significant results were obtained while distributing the patients divided on the basis of histopathology type, peritoneal cytology and lymph node metastasis.

**Table 1:** Demographic and clinical features as prognostic factors

| Parameter | | Number of patients | p- value |
|---|---|---|---|
| Age | Less than 50 years | 29 | 0.02 |
| | More than 50 years | 71 | |
| Menopause | Pre-menopause | 41 | 0.04 |
| | Post-menopause | 59 | |
| Parity | Nulliparous | 48 | 0.55 |
| | Parrous | 52 | |

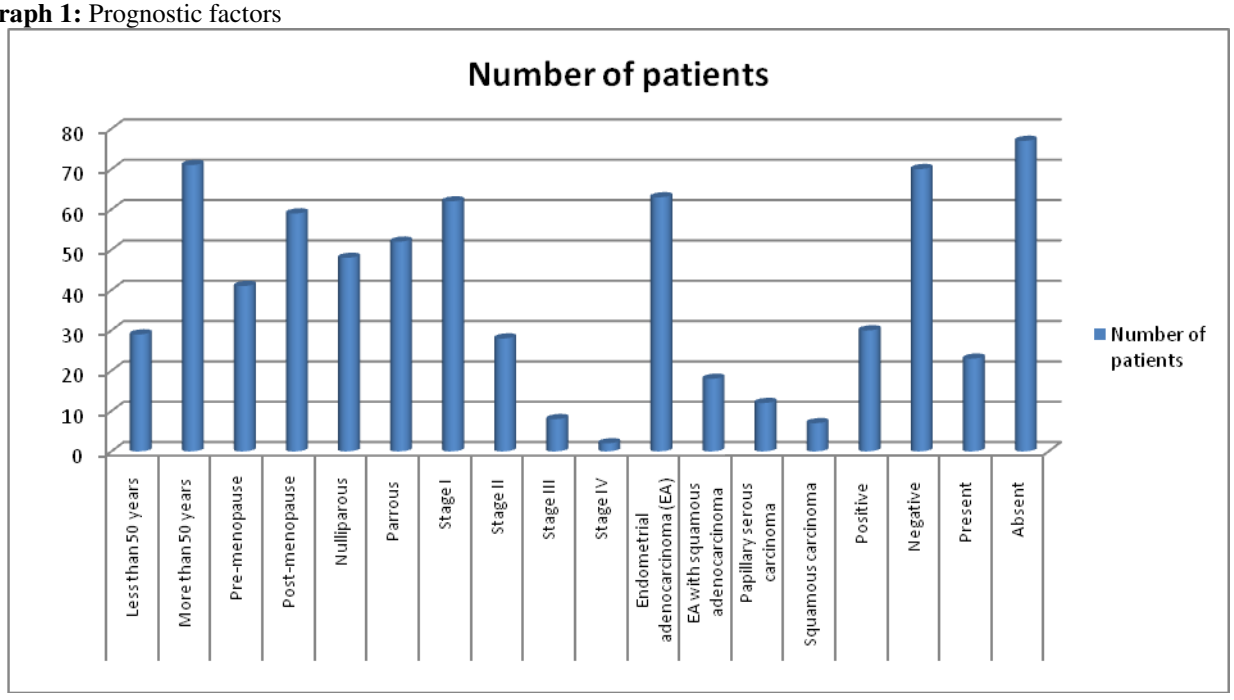
**Table 2: Surgical stage**

| Parameter | | Number of patients | p- value |
|---|---|---|---|
| Surgical stage | Stage I | 62 | 0.01 |
| | Stage II | 28 | |
| | Stage III | 8 | |
| | Stage IV | 2 | |

**Table 3:** Malignant features as prognostic factors

| Parameter | | Number of patients | p- value |
|---|---|---|---|
| Histopathology type | Endometrial adenocarcinoma (EA) | 63 | 0.03 |
| | EA with squamous adenocarcinoma | 18 | |
| | Papillary serous carcinoma | 12 | |
| | Squamous carcinoma | 7 | |
| Peritoneal cytology | Positive | 30 | 0.02 |
| | Negative | 70 | |
| Lymph node metastasis | Present | 23 | 0.00 |
| | Absent | 77 | |

**Graph 1:** Prognostic factors



## DISCUSSION

In the present study, 71 percent of the patients were more than 50 years of age, while 29 percent of the patients were less than 50 years of age. Overall, older women have a worse prognosis and a lower 5-year survival than younger women. It is important to evaluate whether this difference is purely based on age or other poor prognostic features associated with age. In a study involving data from 15,471 endometrial cancer patients in the SEER database, Lee *et al.* showed that women older than 40 years were less likely to have stage I disease and grade I tumors but more likely to have uterine papillary serous histology than women aged 40 years and younger. Furthermore, women older than 40 years had a survival disadvantage and significantly lower 5-year survival when stratifying by age and adjusting for histology and adjuvant therapy.[7- 9]

In the present study, Lymph node metastasis was present in 23 percent of the patients while it was absent in 77 percent of the patients. Significant results were obtained while distributing the patients divided on the basis of histopathology type, peritoneal cytology and lymph node metastasis. Fukuda K et al assessed the significance of malignant or suspicious cervical cytology in preoperative identification of poor prognostic factors in endometrial carcinoma and to determine whether preoperative abnormal cervical cytology is an independent prognostic factor for endometrial carcinoma. They evaluated the correlation between preoperative cervical cytology and postoperative clinicopathologic findings, sites of metastasis, and receptor status from 99 surgically staged patients with endometrial carcinoma.Sixty-eight patients (68.7%) had normal cervical cytology, 1 (1.0%) had atypical cytology suspicious for malignancy, and 30 (30.3%) had malignant cytology on preoperative cervical cytology. Malignant and suspicious cervical smears were statistically correlated with surgical stage (P = 0.001), histopathology (P = 0.010), tumor grade (P = 0.012), depth of myometrialtumor invasion (P = 0.001), cervical involvement (P = 0. 01), lymph node metastases (P = 0.002), adnexal metastases (P = 0. 012), progesterone receptor (P = 0.007), and estrogen receptor (P = 0.031). No association was found between preoperative cervical cytology and patients' age or peritoneal cytology. Univariate analysis showed that cervical cytology was related to survival (P = 0.018). However, multivariate analysis of cervical cytology, stage, grade, and myometrial invasion showed that preoperative cervical cytology was not a significant prognosticator for survival. Patients with endometrial carcinoma who have malignant or suspicious cytology detected by preoperative cervical cytology are at increased risk of having known poor prognostic factors.[10]

Amant F et al investigated whether uterine carcinosarcomas can be included in protocols on high-risk endometrial cancer, given the similarities in biologic behavior of both entities. Although endometrial carcinosarcoma originates from epithelial cancer, the intrinsic more aggressive tumor biology suggested that this subtype should not be incorporated in studies on high-risk epithelial endometrial cancer.[11] Giordano G et al analyzed clinical data and pathological features of six cases of malignant endometrial polyps, to compare these with other examples reported in literature and to define the features of endometrial cancer arising in polyps. Moreover, to clarify the mechanisms of carcinogenesis in malignant endometrial polyps we examined the expression of cyclooxygenase-2 (COX-2), P53 and Ki 67 and their relationships with clinicopathologic characteristics. Clinical records, histological slides of endometrial curetting, hysterectomy with salpingo-oophorectomy specimens and pelvic lymph nodes were reviewed in each case. The main pathological features analyzed were histological types of endometrial cancer and the stage of development of neoplasm. The presence of other malignancies in the genital tract were also considered. Immunohistochemical staining was done using antibodies COX-2, p53 and Ki 67. All malignant endometrial polyps had been detected in postmenopausal women. The majority of our patients with malignant endometrial polyps had risk factors for the development of endometrial carcinoma such as hypertension, obesity and unopposed estrogen therapy.Postmenopausal status, hypertension, obesity could all be considered as risk factors for carcinomatous transformation within endometrial polyps in women without a history of breast carcinoma and Tamoxifen treatment.[12]

## CONCLUSION

Under the light of above obtained data, the authors conclude that it is important for segregating the risk factors of endometrial carcinoma for improving the prognosis of the patients. However; further studies are recommended.

## REFERENCES


1. Uharcek P.Prognostic factors in endometrial carcinoma.J ObstetGynaecol Res. 2008 Oct;34(5):776-83.
2. Pisani P, Parkin DM, Ferlay, J. Estimates of the worldwide mortality from eighteen major cancers in 1985. Implications for prevention and projections of future burden. Int J Can-cer, 1993; 55: 891–903.
3. Coleman MP, Esteve, J, Damiecki, P ,et al. Cancer Incidence and Mortality. IARC Sci.Publ. Lyon, France: International Agency for Research on Cancer. 1993: 1–806.
4. T. Högberg, M. Signorelli, C. F. de Oliveira et al., "Sequential adjuvant chemotherapy and radiotherapy in endometrial cancer—results from two randomized studies," European Journal of Cancer, vol. 36, no. 2, pp. 371–378, 2010.
5. B. Sorbe, B. Nordström, J. Mäenpää et al., "Intravaginal brachytherapy in FIGO stage I low-risk endometrial cancer: a controlled randomized study," International Journal of Gynecological Cancer, vol. 19, no. 5, pp. 873–878, 2009.
6. B. Sorbe, G. Horvath, H. Andersson, K. Boman, C. Lundgren, and B. Pettersson, "External pelvic and vaginal irradiation versus vaginal irradiation alone as postoperative therapy in medium-risk endometrial carcinoma—a prospective randomized study," International Journal of Radiation Oncology, Biology, Physics, vol. 82, no. 3, pp. 1249–1255, 2012.

7. Ueda, SM, Kapp, DS, Cheung, MK Trends in demographic and clinical characteristics in women diagnosed with corpus cancer and their potential impact on the increasing number of deaths . Am. J. Obstet. Gynecol. 198 ( 2 ), 218.e1 – 218.e6 ( 2008 ).
8. Lee, NK, Cheung, MK, Shin, JY, Husain, A, Teng, NN, Berek, JS Prognostic factors for uterine cancer in reproductive-aged women . Obstet. Gynecol. 109 , 655 – 662 ( 2007 ).
9. Keys, HM, Roberts, JA, Brunetto, VL A Phase III trial of surgery with or without adjunctive external pelvic radiation therapy in intermediate risk endometrial adenocarcinoma: a Gynecologic Oncology Group study . Gynecol. Oncol. 92 ( 3 ), 744 – 751 ( 2004 ).
10. Fukuda K1, Mori M, Uchiyama M, Iwai K, Iwasaka T, Sugimori H, Yamasaki F. Preoperative cervical cytology in endometrial carcinoma and its clinicopathologic relevance. GynecolOncol. 1999 Mar;72(3):273-7.
11. Amant F1, Cadron I, Fuso L, Berteloot P, de Jonge E, Jacomen G, Van Robaeys J, Neven P, Moerman P, Vergote I. Endometrial carcinosarcomas have a different prognosis and pattern of spread compared to high-risk epithelial endometrial cancer. GynecolOncol. 2005 Aug;98(2):274-80.
12. Giordano G1, Gnetti L, Merisio C, Melpignano M. Postmenopausal status, hypertension and obesity as risk factors for malignant transformation in endometrial polyps. Maturitas. 2007 Feb 20;56(2):190-7. Epub 2006 Sep 11.

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