

# Incidence of Different Malignancies in Female Genital Tract: Study in 504 Women in Rural Population

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## ABSTRACT

**Introduction:** Female genital tract malignancy is the most common carcinoma. Around 70,000 new cases of uterine cancers and 75,000 new cases of breast cancers are reported in India every year. In the developed countries ovarian cancer is the most common cancer and in developing countries, carcinoma cervix is the most common malignancy. As per the national centre for health statistics, cancer is the second leading cause of death amongst women aged between 25-44 years. The aim of present study was to establish the incidence of malignancies in female genital tract amongst women in rural areas.

**Material and methods:** This hospital based study was conducted in Gold field institute of medical sciences and research, Haryana during a period of one year 2014-15. The pattern and incidence of malignancy of female genital tract was noted. Biopsy specimens from the patients were taken and analysed. The demographic data of all the patients including age, site and diagnosis were noted. The record was arranged in a tabulated form and analysed using SPSS software. The incidence was expressed as percentage of total value.

**Results:** A total of 4166 candidates reported to the institute during a period of one year. Out of which 504 patients were that of genital carcinoma. Incidence of female genital tract carcinoma was 12.09%. Approximately 67.2% (339 patients) of cases were that of cervical cancer and 0.1% cases (1 patient) was detected with carcinoma of fallopian tube. Most common age group to be affected was 51-60 years (29.5%) followed by 61-70 years (24.8%) and 41-50 years (23.8%).

**Conclusion:** Carcinoma cervix was the most common female genital tract cancer with ovarian cancer taking the second rank.

**Keywords:** Carcinoma, Ovarian, Malignancy, Uterine

## INTRODUCTION

One of the common sites of tumours in females is the female genital tract. The few common sites are cervix, ovary and endometrium.<sup>1</sup> These malignancies are seen worldwide but their distribution varies from one place to another. Around 70,000 new cases of uterine cancers and 75,000 new cases of breast cancers are reported in India every year.<sup>2</sup> As per the national centre for health statistics, cancer is the second leading cause of death amongst women aged between 25-44 years.<sup>3</sup> Around 75% of the ovarian cancer patients report with advanced stage of disease leading to increased mortality.<sup>4</sup>

In the present era, due to the presence of advanced screening and treatment modalities in developed countries, there has been a drastic decline in the incidence and mortality associated with cervical cancer.<sup>5</sup> On the contrary, in developing countries due to low resources and lack of awareness there hasn't been much improvement in the screening programmes. People of rural areas do not have much access to the health care services due to which cervical cancer is the most common genital carcinoma in developing countries.<sup>6</sup> Despite of such a frequency and

incidence, there is paucity of knowledge and data regarding this dreadful condition. The aim of present study was to establish the incidence of malignancies in female genital tract amongst women in rural areas.

## MATERIAL AND METHODS

This hospital based study was conducted in the Gold Field Institute of Medical Sciences and Research, Haryana, India, during a period of one year (2014-15). The females reporting to institute with gynaecological complaints were asked to take part in the study. The pattern and incidence of malignancy of female genital tract was noted. Females aged more than 20 years and less than 80 years were included in the study. Patients with any other co morbidities were excluded. Patients with any bleeding disorder, allergy to local or general anaesthesia were also not included in the study. Biopsy specimens from the patients were taken and analysed. Samples were taken by same surgeon. After histopathological examination of the sample, it was graded as a malignancy. The demographic data of all the patients including age, site and diagnosis were noted. The study was conducted after the approval from ethical committee of the institute and consent was taken from all the patients. All the data obtained from the patients was kept confidential.

## STATISTICAL ANALYSIS

The record was arranged in a tabulated form and analysed using SPSS software. The incidence was expressed as percentage of total value.

## RESULT

A total of 4166 candidates reported to the institute during a period of one year. Out of which 504 patients were that of genital carcinoma. Incidence of female genital tract carcinoma was 12.09%. Table 1 denotes the incidence of female genital cancer according to site. Approximately 67.2% (339 patients) of cases were that of cervical cancer and 0.1% cases (1 patient) was detected with carcinoma of fallopian tube. Cervical cancer was the most common female genital tract cancer. 21.8% of the

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**How to cite this article:** Vijender Jeph, Adreena, Prem K Garg, Kiran Mahabole. Incidence of different malignancies in female genital tract: study in 504 women in rural population. International Journal of Contemporary Medical Research 2017;4(1):284-286.

Site of tumor		No. of Cases	Percentage
Cervix		339	67.2
Ovary		110	21.8
Uterus	Endometrium	22	4.3
	choriocarcinoma	19	3.7
Vulva		13	2.5
Fallopian tube		1	0.1
vagina		0	0
Total		504	100

**Table-1:** Site wise distribution of female genital cancer

Ages range	No. of cases	Percentage
21-30	23	4.5
31-40	62	12.3
41-50	120	23.8
51-60	149	29.5
61-70	124	24.8
71-80	26	5.1
Total	504	100

**Table-2:** Age distribution of malignant tumours

Age	Ovary	Cervix	Uterus
21-30	3	15	9
31-40	40	13	11
41-50	81	30	3
51-60	102	26	9
61-70	79	22	14
71-80	38	3	6
Total	343	109	52

**Table-3:** Age distribution according to site of malignancy

females had ovarian cancer.

Table 2 describes the age distribution of the patients with genital carcinoma. Most common age group to be affected was 51-60 years (29.5%) followed by 61-70 years (24.8%) and 41-50 years (23.8%). Least number of patients was seen in 21-30 years of age (4.5%).

Table 3 illustrates the most common site of malignancy in different age groups. Ovary was the most commonly involved site at 51-60 years of age affecting 102 patients. Cervical cancer was common in 21-30 years of age affecting 15 patients. Uterine cancer was the least commonly involved site.

## DISCUSSION

According to our study 67.2% of cases were that of cervical cancer, making it the leading group in our study. According to a study by Port Harcourt et al<sup>7</sup>, 65% of the patients in their study had cervical cancer. In a study by TC Okeke et al, 66.3% patients constituted that of cervical cancer amongst female genital tract cancer. Nanda kumar et al<sup>8</sup> reported that cervix cancer was the most common cancer amongst females. According to Megafu, 73.1% of all genital cancers were cervical cancers.<sup>9</sup> Only 1 case (0.1%) of fallopian tube cancer was reported in our study. According to a study by Ajith Kumar et al<sup>10</sup>, 1% of all gynaecological malignancies constituted fallopian tube carcinomas. Kietpeerkool<sup>11</sup> reported its incidence to be 0.48%. The pattern of distribution was different from that of developed countries where ovarian cancer was the leading genital tract cancer, may be due to advancements in screening technologies

and treatment of premalignant lesions.<sup>12</sup> According to our study, ovarian cancer was the second most common genital tract cancer. Our study was in accordance with the study conducted by Jasawala et al<sup>13</sup>, in which cervical cancer was the most common site of cancer. In a study by Nkyekyer K<sup>14</sup>, cervical cancer was the most common cancer followed by ovarian cancer. A study done by Nwosu SO et al<sup>15</sup> amongst females in Nigeria, he concluded similar results in which cervical cancer was the most common cancer followed by ovarian cancer.

Majority of the patients presented with advanced stages of malignancy due to low level of awareness and education amongst the females. There are also limited number of screening programmes in our country which could also be responsible for advanced stages.<sup>16-18</sup>

There were few limitations of the study, which include scanty data on the management outcome and follow up records were not taken into consideration.

## CONCLUSION

Carcinoma cervix was the most common female genital tract cancer with ovarian cancer taking the second rank. With the aid of proper screening and medical therapies, appropriate and timely treatment should be provided to prevent the disease progressing to advanced stage.

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**Source of Support:** Nil; **Conflict of Interest:** None

**Submitted:** 07-01-2017; **Published online:** 17-02-2017