International Journal of Medical Science and Clinical Research
www.journalofmedical.com
Online-ISSN: 2664-7761, Print ISSN: 2664-7753
Received: 26-02-2021, Accepted: 13-03-2021, Published: 13-04-2021
Volume 3, Issue 2, 2021, Page No. 05-08

Assessment of various tumors/cancers in gyneacology department of teritary care teaching hospital

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Abstract

Aim: To assess various tumors and cancerous conditions in gynaecology department in a tertiary care teaching hospital. **Methodology:** A prospective observational, analytical study was done on patients admitted in general medicine of Maharaja Institute of Medical Sciences, Vizianagaram, Andhra Pradesh, India. Information regarding age, type of tumor or cancer, its size and histology were recorded in a standard questionnaire (case report form).

Results: Total of 100 tumors or cancers were included after excluding missing data. Out of 100 cases, 50 cases were uterine, 20 were cervical, 26 were ovarian and 2 each of vaginal and vulvar cancers. It included 68 benign and 32 malignant cases. **Conclusion:** significant amount of tumors were uterine followed by ovarian which occurred mostly in the women between the age groups of 40-50 years. So, it is important to keep an eye on risk factors that might be responsible to cause the tumors or cancers.

Keywords: benign, cervical cancer, malignant, parity, uterine tumor

Introduction

Gynaecologic cancer is any cancer that is seen in a woman's reproductive organs. Gynaecologic cancers begin in different places within a woman's pelvis like uterus, ovary, cervix, vagina etc.

Types of Gynaecologic Cancer

- **Cervical Cancer:** Begins in the *cervix,* which is the lower, narrow end of the uterus.
- **Ovarian Cancer:** Begins in the *ovaries,* which are located on each side of the uterus.
- **Uterine Cancer:** Begins in the *uterus.* It includes 3 parts such as outer perimetrium, middle myometrium and inner endometrium.
- **Vaginal Cancer:** Begins in the *vagina,* which is the hollow passage between uterus and cervix.
- **Vulvar Cancer:** Begins in the *vulva,* the outer part of the female genital organs. [1]

Cervical cancer

Cancer of the cervix, is the second most common cancer among women worldwide and the most common malignancy of the female genital tract.

It is usually caused due to sexually transmitted Human Papilloma Virus (HPV) infection leads to the development of cervical intraepithelial neoplasia and cervical cancer [2].

Ovarian Cancer

Ovarian cancer is one of the most common Gynaecologic cancers that rank third after cervical and uterine cancer.3 symptoms include heavy periods, vaginal discharge, fatigue, Weight Gain/weight loss, vaginal bleeding, pelvic pain, abdominal pain.4

Uterine Cancer

Endometrial cancer begins in the cells that form the endometrium of the uterus. Endometrial cancer is also called uterine cancer. In most of the cases, surgery is done to remove the tumor in the uterus.

Vaginal Cancer

Vaginal cancer is a rare disease, comprising only 1%–2% of all gynaecologic malignancies.5 Squamous cell carcinoma is the most common histological type of vaginal cancer. The risk factors of vaginal cancer include younger age at coitarche, greater number of lifetime sexual partners, smoking, in utero diethyl stilbestrol (DES) exposure (5,6), and human papillomavirus (HPV) infection [6].

Vulvar Cancer

Vulvar cancer is uncommon, accounting for only 2%–5% of gynaecologic malignancies. Squamous cell carcinoma of the vulva is the most common subtype. It has been regarded as a disease of postmenopausal women, although the mean age of incidence has fallen in recent years owing to the increase in HPV infections [7].

Materials and methodology

Study Site: The study was conducted in gynaecology department of Maharaja Institute of Medical Sciences, Vizianagaram.

Study Period: The study was conducted for a period of 6 months from August 2020 to February 2021.

Study Design: Prospective observational study.

Sample Size: A total of 100 cases will be included in the study.

Study Criteria

Inclusion criteria

- Patients of any age group.
- Patients of female gender.
- Patient with any type of gynaecological tumor or cancer.
- Pregnant women

Exclusion Criteria

- Patients from departments other than Gynaecology are excluded.
- Patients who were not willing to give the consent.

Study Procedure

Before initiating the study, ethical committee approval was obtained from the institutional ethical committee.

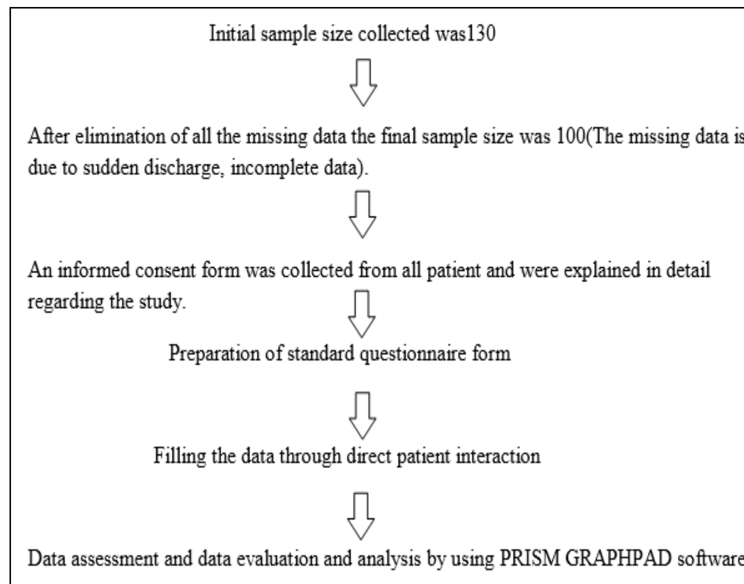

Fig 1

Results

1. Distribution based on location of tumor or cancer:

Table 1: Description of location of tumor or cancer

Type of cancer	No. of cases
Uterine	50
Cervical	20
Vaginal	2
Ovarian	26
Vulvar	2

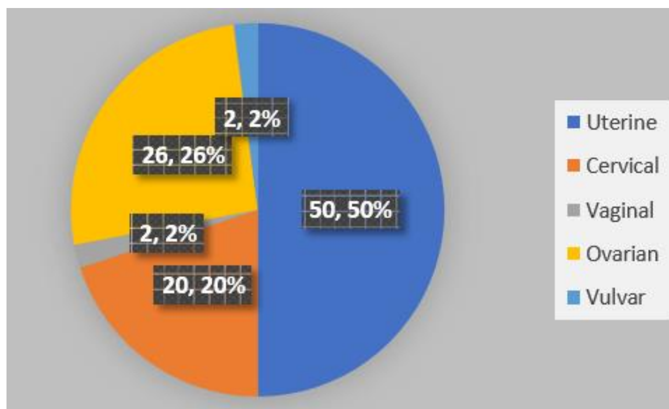

Fig 2: Pie chart depicting distribution of patients based on location of tumor or cancer

2. Distribution based on stage of cancer

Table 2: description of distribution based on stage of cancer

Stage	No. of cases
Benign	68
malignant	32

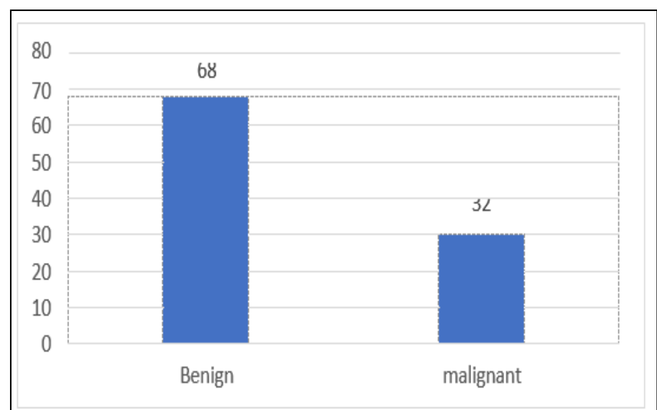

Fig 3: Graph depicting distribution based on stage of cancer

3. Distribution based on symptoms observed

Table 3: Description of distribution based on symptoms observed

Symptom	No. of cases
Lower abdominal pain	46
Postmenopausal bleeding	7
Heavy menstrual bleeding	25
Vomiting and loose stools	7
Continuous vaginal bleeding	12
Vaginal discharge	17
Others	17

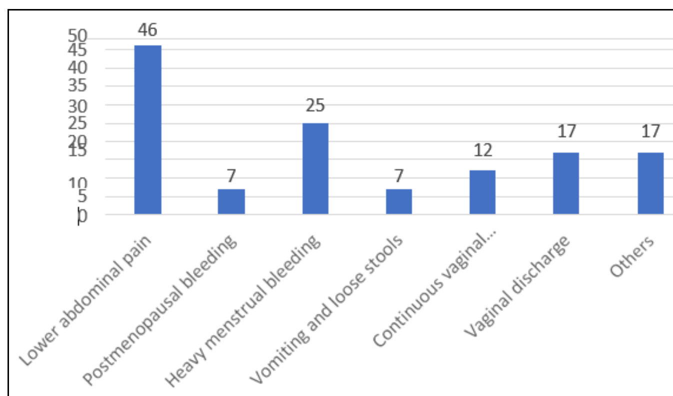

Fig 4: graph depicting distribution based on symptoms observed

4. Distribution based on menopausal status

Table 4: Description of distribution based on menopausal status

Status	No. of cases
Pre menopause	73
Peri menopause	2
Post menopause	25

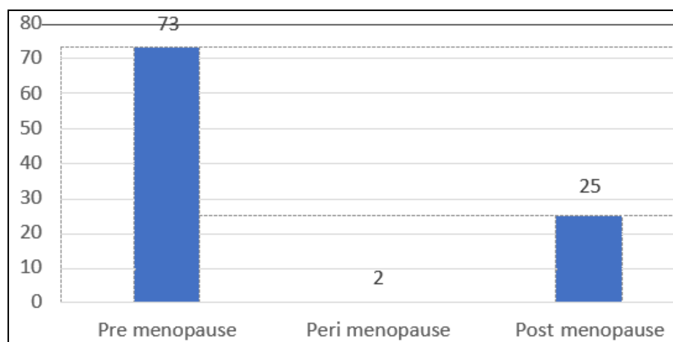

Fig 5: graph depicting distribution based on menopausal status

5. Distribution based on histology of malignant cancers

Table 5: description of distribution based on histology of malignant cancers

Histology	No. of cases
Adenocarcinoma	5
Squamous cell carcinoma	12
Mucinous cell carcinoma	6
Clear cell carcinoma	0
Endometroid carcinoma	1
Epidermoid carcinoma	0
Histology could not be determined	8

Table 6: description of distribution based on histology of benign tumors

Location of tumor	Histology of tumor	No. of cases
Ovarian tumors	Mucinous cystadenoma	5
	Serous cystadenoma	3
Uterine fibroids	Submucosal	7
	Intermural	20
	Subserosal	10
Cervical tumors	Glandular	1
	Squamous	4
Histology could not be determined		18

Table 7: Description of distribution based on diagnostic imaging

Test	No. of cases
USG scan	64
CT scan	10
MRI	14
Risk of malignancy index (RMI)	3
Biopsy	7
2D echo	2

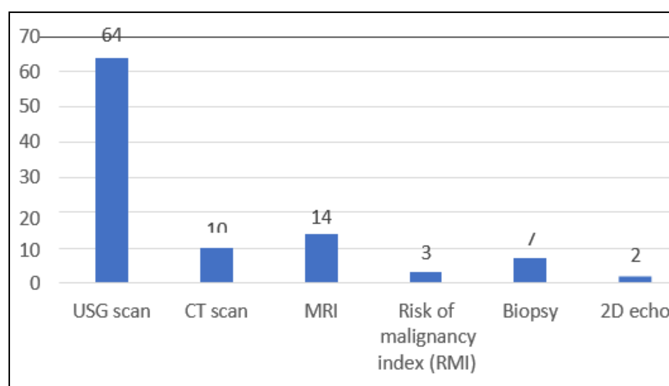

Fig 6: Graph depicting distribution based on diagnostic imaging

Discussion

In our study, patients of age group 40-50 years suffered from gynaecological cancers followed by 30-40 years. This is in contrast to the study conducted by Yorito Yamamoto *et al* who concluded that patients of 30-40 years age suffered the most followed by 40-50 years.

Most of the patients suffered from uterine tumors followed by ovarian cancers. Cancers of less incidence include vaginal and vulvar cancers.

Benign tumors are more in number when compared to malignant. These benign tumors mostly include uterine fibroids.

Most of the patients who suffered are multiparous followed by nulliparous. Nulliparity after the age of 35 is said to be one of the leading causes of gynaecological cancers which mostly include uterine and ovarian cancers. Continuous ovulation associated with nulliparity may lead to ovarian malignancies.

In case of cervical cancers, major risk factors include HIV infection and multiparous women (women who gave birth to more than 3 children).

Premenopausal women suffered mostly when compared to postmenopausal women which is similar to the study conducted by Yorito Yamamoto *et al*.

The size of tumors is greater than 4cm in most of the cases. Most of the patients used ultrasound scan for diagnosing the tumor which is followed by MRI scan and then CT scan.
Maximum number of patients did not have any comorbid conditions where a very few were found to be having hypertension and hypothyroidism. Having prone to STDs may increase the risk of developing cancers. So proper awareness about STDs is very important to avoid such problems.

Conclusion

- Patients of age group 40-50 years suffered the most.
- Most of the tumors were uterine followed by ovarian.
- Most of the patients were multiparous followed by nulliparous.
- Benign tumors were more in number.
- Most of the patients came with the complaint of lower abdominal pain or pelvic pain and heavy menstrual bleeding.
- Age was found to be the most common risk factor in causing gynaecological cancers.
- Nulliparity was also a significant reason in causing uterine fibroids.
- Most of the malignant tumors are of squamous cell carcinoma type.
- Among the benign tumors, significant amount of ovarian tumors were mucinous cystadenomas, most of the uterine tumors were intramural and significant amount of cervical tumors were squamous.
- Hypertension and hypothyroidism were found to be the most common comorbidities in patients who suffered from gynaecological tumors.
- Patients should keep an eye on risk factors which might be responsible to cause tumors.
- When these symptoms appear, women should not delay in screening so as to find out any abnormality.
- Proper awareness should be provided to women regarding gynaecological cancers in rural areas.

Limitations

- Sample size which we considered in evaluation was less and it should be further expanded.
- Total study was done in a single tertiary care hospital and it can be expanded to a greater number of tertiary care hospitals which will give the scope to include a greater number of patients.

Acknowledgement

We acknowledge the continuous support of Dr. M.B.V. Raju (principal) for successfully completing the research.

Conflict of interest

There was no conflict of interest.

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