

## Clinical Profile of Women with Ovarian Tumor Attended a Tertiary Care Hospital in Bangladesh.

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### Abstract

**Background:** Ovary is a very common site for tumors, both benign and malignant which causes great morbidity and mortality. Ovarian tumors most commonly occur in women of childbearing age. The ovarian tumors manifest a wide spectrum of clinical, morphological, and histological features. The proper management of the patients with ovarian tumor directly depends on the clinical profile the respective patients. **Aim of the study:** The aim of this study was to evaluate the clinical status of ovarian tumor patients attended a tertiary care hospital in Bangladesh. **Methods:** This cross-sectional observational study was done at Rajshahi Medical College and Hospital, Rajshahi, Bangladesh during the period from December 2017 to November 2019. In total 240 women with ovarian tumor from several age groups were enrolled as the study people. In each case, information about the patient was collected in a prescribed questionnaire after getting written consent from the patients in a preformed consent form. **Results:** In analyzing the previous family history of cancer, we observed among total participants only 18% (n=43) had the positive family history of cancer. As the habit of using contraceptive methods we found, the highest number of patients were used to Barrier method (20%). Besides this, 15%, 5%, 11% and 2% participant were using injectables (Irregularly), Natural method, OCP irregularly and Calender method as contraceptive methods respectively. In this study, two third of participants were multipara and the rest one third were nullipara. In analyzing the histopathology reports of participants, as some most potential and/or frequent characteristics we observed mucinous cyst, endometrioma, serous cyst adenoma and dermoid cyst were found among 26.67%, 18%, 16.67% and 13.33% participants respectively. **Conclusion:** From our study we can conclude that, ovarian tumors are most commonly occurred in middle aged women in the middle-income group. Parous women are most vulnerable in condition for affecting ovarian tumor. Clinical profiling of patients may be helpful in treating and preventing ovarian tumor as well as in awareness building on ovarian tumor to mass people.

**Keywords:** Ovarian tumor, Clinical profile, Benign tumor, Malignant, Carcinoma.

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## I. INTRODUCTION

Human ovary is a very common site for tumors, both benign and malignant which causes great morbidity and mortality. Generally, ovarian tumors occur in women of childbearing age. The ovarian tumors manifest a wide spectrum of clinical, morphological, and histological features. The proper management of the patients with ovarian tumor directly depends on the clinical profile the respective patients. Ovarian tumors that present in the reproductive age group are mostly benign while about 30% in the

postmenopausal age group are malignant [1]. They present themselves in various clinical forms and surprisingly many a time as vague, non-gynaecological complaints. Ovarian tumors also present in a wide spectrum of histopathological patterns. Many ovarian tumors are asymptomatic in the early stages and are unfortunately diagnosed in the advanced state. The high mortality rate of ovarian cancer is due to its late detection, thus earned itself the term “Silent Killer” [2]. Several studies on cancerous ovarian tumors explained ovarian cancers [3]. Ninety percent of adnexal masses

are detected by pelvic ultrasound [4]. This provides the clinician information about the origin of the adnexal mass. Further, details of the tumor like its complexity, its vascularity and consistency are made out on ultrasound imaging. The definitive diagnosis of the tumor however is by histopathological study [5]. The aim of this study was to evaluate the clinical status of ovarian tumor patients attended a tertiary care hospital in Bangladesh.

## II. OBJECTIVE

### General Objective:

- The general objective of this study was to assess the clinical profile of women with ovarian tumor.

### Specific Objective:

- To collect information regarding the sociodemographic status of the participants.
- To collect information regarding the clinical status of the participants.
- To collect information regarding the histopathological status of the participants.
- To collect information regarding the pelvic examination results of the participants.

## III. METHODOLOGY

This was a cross-sectional type of study carried out at Rajshahi Medical College and Hospital, Rajshahi, Bangladesh during the period from December 2017 to November 2019. In total 240 women from several age groups with ovarian tumor were enrolled as the study people. This study was approved by the ethical committee of the mention hospital. Proper written consents were taken from all the participants before starting data collection. A pre-designed questioner containing the questions on medical history, family history, risk factors associated with ovarian tumor, diagnostic findings, clinical findings along with other related information was used. Clinical examination and laboratory investigations were carried out for clear concept. Primarily, ultra-sonogram of whole abdomen (W/A), transvaginal sonogram (TVS) with Doppler study and CA125 were done. MRI, CT scan and PET scan were reserved for the cases where ultrasonogram findings were suspicious. Risk of malignancy index (RMI) was assessed for all the cases. Statistical analysis was performed using the Statistical package for social science SPSS version 23.0. A descriptive analysis was performed for clinical features and results were presented as mean  $\pm$  standard deviation for quantitative variables and numbers (percentages) for qualitative variables.

## IV. RESULTS

In this study, in analyzing the ages of the participants we observed, among total participants, the highest number of patients were from 51-59 years' age group which was 38%. Then 3%, 9%, 21% and 29% patients were from <20, 20-30, 31-40 and 41-50 years' age groups respectively. Most of the respondents of this study were from rural areas which was 60% whereas the rest 40% were from urban areas. In this study in analyzing the previous family history of cancer we observed, among total participants only 18% (n=43) had the positive family history of cancer. As the habit of using contraceptive methods we found, the highest number of patients were used to Barrier method (20%). Besides this, 15%, 5%, 11% and 2% participant were using injectables (Irregularly), natural method, OCP irregularly and Calender method as contraceptive methods respectively. In this study two third participants were multipara (n=160) whereas the rest one third were nullipara (n=80). In this study data regarding the per-abdominal examination reports were also noted. In analyzing the histopathology reports of participants, as some most potential and/or frequent characteristics we observed, mucinous cyst, endometrioma, serous cyst adenoma and dermoid cyst were found among 26.67%, 18%, 16.67% and 13.33% participants respectively. In this study through pelvic examination, against majority of the patients (77.92%) 'P/S/E-Condition of the cervix-healthy B/M/E - Mass felt through fornix' report was found.

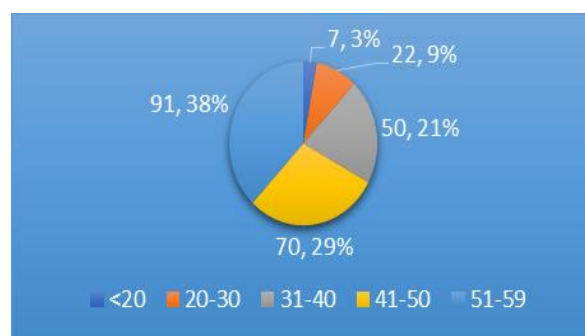


Fig-1: Age distribution of the patients (n=240)

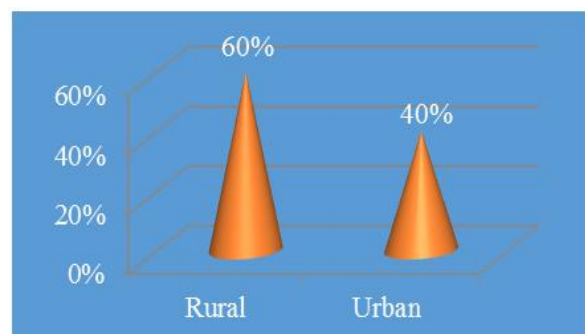
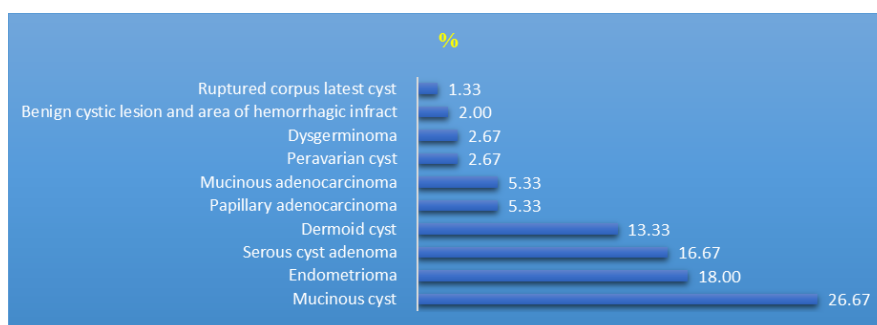


Fig-2: Distribution of residential areas among patients (n=240)

**Table-1: Clinical characteristics of the patients (n=240)**

| Clinical characteristics                    | n   | %  |
|---|-----|----|
| <b>Previous family history of cancer</b>    |     |    |
| Yes   | 43  | 18 |
| No  | 197 | 82 |
| <b>Contraceptive Method</b>                 |     |    |
| Undefined                                   | 98  | 41 |
| Barrier Method                              | 49  | 20 |
| Irregularly used of injectable              | 35  | 15 |
| Natural Method                              | 13  | 5  |
| OCP irregularly                             | 27  | 11 |
| Calender Method                             | 5   | 2  |
| Nothing                                     | 13  | 5  |
| <b>Parity</b>                               |     |    |
| Nullipara                                   | 80  | 33 |
| Multipara                                   | 160 | 67 |
| <b>Per abdominal examination</b>            |     |    |
| Inspection-Distended Palpation-Mass present | 80  | 33 |
| Inspection-Normal Palpation-Mass present    | 160 | 67 |

**Fig-3: Histopathology report of the patients****Table-2: Pelvic examination of the patients (n=240)**

| Pelvic examination of the patients  | n   | %     |
|---|-----|-------|
| P/S/E-Condition of the cervix-healthy B/M/E - Mass felt through fornix                    | 187 | 77.92 |
| Inspection-Normal P/S/E-Condition of the cervix-healthy B/M/E -Bulky uterus               | 8   | 3.33  |
| Inspection-Normal P/S/E-Condition of the cervix-healthy B/M/E- Uterus not felt separately | 6   | 2.50  |
| P/S/E-Unhealthy B/M/E -Mass felt through fornix   | 18  | 7.50  |
| Inspection-Normal P/S/E-erosion present B/M/E -Mass felt through fornix                   | 11  | 4.58  |
| Inspection-Normal   | 3   | 1.25  |
| Inspection-Normal P/S/E-Condition of the cervix-healthy B/M/E                             | 3   | 1.25  |
| B/M/E- Uterus cervix-irregular, hard upper border of uterus cannot delineate properly.    | 3   | 1.25  |

## V. DISCUSSION

The aim of this study was to evaluate the clinical status of ovarian tumor patients attended a tertiary care hospital in Bangladesh. One study reported that, from early 2000 through November 2004, less than 15,000 patients with gynecological cancer have entered data into one of four profilers: 1) newly diagnosed, 2) recurrent ovarian, 3) endometrial, and 4) cervical cancers. Internal data consistency includes similar ages and general health histories of the ovarian and endometrial cancer populations and younger age of the cervical cancer patients.<sup>6</sup> In our study, we found, among total participants, the highest number of patients were from 51-59 years' age group which was 38%. Then 3%,

9%, 21% and 29% patients were from <20, 20-30, 31-40 and 41-50 years' age groups respectively. In one report showed that, 83.3% were aged between 51 to 60 years with mean (+SD) age 57.27 + 3.56 years, which was quite nearer to our study.<sup>5</sup> On the other hand, in another study it was reported that, mean age of the patients was 61 years.<sup>7</sup> In one study conducted study on human ovary at the University of Kentucky over 58673 women between 25 to 91 years of age. The mean ovarian volume was 6.6 ml in women <30 years of age, 6.1ml in women 30-39years, 4.8ml in those aged 40-49 years, 2.6ml in 50-59 years old and 2.1ml in women aged 60-69 years.<sup>8</sup> In our study we found 60% patients were from rural which is similar in another study.<sup>9</sup> One

study reported that 12% were nulliparous and 80% were parous.<sup>10</sup> But in our study most of the patients were multipara (67%). In analyzing the histopathology reports of participants, as some most potential and/or frequent characteristics we observed, mucinous cystadenoma, endometrioma, serous cystadenoma and dermoid cyst were found among 26.67%, 18%, 16.67% and 13.33% participants respectively. These findings are quite similar to some other studies.<sup>11-13</sup> In study by Sk Mondal, the most common histological types were serous cystadenoma (29.9%), followed by mature teratoma (15.9%) and mucinous cystadenoma (11.1%), but in this study 42.18% were mucinous and 39.07% were serous cystadenomas, mature teratoma 15.6%.<sup>14</sup>

**Limitations of the study:** This was a single centered study with a small sized sample. So, the findings of this study may not reflect the exact scenario of the whole country.

## VI. CONCLUSION

Most of the patients were multiparous and only 18% of the patients had previous history of cancer in their family. From our study we can conclude that, ovarian tumors are most commonly occurred in middle aged women. Also, the parous women are most commonly suffering from ovarian tumor as we observed in our study. Clinical profiling of patients may be helpful in treating and preventing ovarian tumor as well as in awareness building on ovarian tumor to mass people.

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