ORIGINAL RESEARCH PAPER
Volume - 9 | Issue - 8 | August - 2020 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

STUDY OF OVARIAN TUMORS

Gynaecology

Dr. Poonam Londhe Senior Resident, MS GYNC, GMERS Medical College Dharpur, Patan

Dr. Yogeshkumar Patel* Senior Resident, MS GYNC, GMERS Medical College Dharpur, Patan *Corresponding Author

KEYWORDS

Tumour originally applied to the swelling caused by inflammation but the non-neoplastic usage of tumour has almost vanished thus term is now equated with neoplasm.

"A neoplasm is an abnormal mass of tissue the growth of which exceed & is uncoordinated with that of the normal tissues & persistence is the same excessive manner after cessation of the stimuli which waked the change."[1]

Ovarian cancer has emerged as one of the most common malignancy-affecting women in India. It is an important cause of morbidity & mortality especially in middle-aged women. It is the second most common malignancy of female reproductive system and has the worst prognosis and highest case fatality rate among all gynaecological malignancies 2. Ovarian cancer is the seventh most common cancer diagnosis among women worldwide and the fifth most common cancer diagnosis among women in higher resource regions. The world rate is estimated to be 6.3 per 1,00,000 women and its highest in high resource countries 9.3 per 1,00,000 women 3. Ovarian cancers are associated with highest mortality which mostly remains asymptomatic in early stages and are diagnosed at an advanced stage. They have worst prognosis of all gynaecological cancers with an overall 5 year survival of about 35%.

Generally, ovarian cancer is a disease of peri- and postmenopausal women. The risk of developing ovarian cancer peaks in the 5th decade of life. The average age at diagnosis of ovarian cancer is 60 years. A women's risk at birth of having ovarian cancer in her life is nearly 1.5% and that of dying from ovarian cancer is almost 1%.

Ovarian cancer is often being called a "silent killer" because of non-specific symptoms, including abdominal discomfort or fullness, dyspepsia and bloating which may mimic other conditions and lead to delay in diagnosis. Moreover, lack of trustworthy screening for early detection of Ovarian cancer has lead to majority of cases being diagnosed in an advanced stage which contributes not only to poor prognosis but also responsible for increase in burden of disease. Consequently, 75% of women are diagnosed with advanced disease (FIGO stage III or IV), which has a median overall survival of 15-23 months and an estimated 5 year survival of just 2%.

The incidence of ovarian tumours varies only slightly according to region and ranges from 5-15%. Approximately 90% of ovarian cancers are epithelial in origin 4, 75% serous, 20 % mucinous, 2% endometroid, clear cell and Brenner, 20-25% germ cell and 5-8% sex cord tumours.

Differential diagnosis remains a major problem in histopathology of ovarian tumours especially for poorly differentiated or undifferentiated malignancy.

Most patients still present with advance disease and it remains a major surgical challenge requiring often-complex therapies. Treatment of ovarian cancer remains challenging despite the high complete response rate seen after maximum surgical debulking surgery and platinum combination chemotherapy.

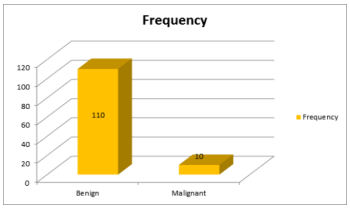
AIMS AND OBJECTIVES

1. To study the incidence of ovarian tumours and to know the magnitude of the problem.
2. To evaluate the clinical features and mode of presentations.
3. To study the distribution of benign and malignant tumours in different age group.
4. To study various treatment modalities as per staging of tumour and feasibility of patient and prognosis.
5. To study the histopathological pattern of ovarian tumours.

RESULTS

RELATIVE FREQUENCY OF BENIGN AND MALIGNANT OVARIAN TUMOURS

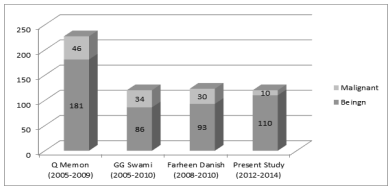
Type	n=120	%
Benign	110	91.67%
Malignant	10	8.33%



Out of 120 cases of ovarian tumours, there are 91.67% benign and 8.33% malignant. That is for every 10 benign tumours there is one malignant tumours

TABLE – 1A
COMPARATIVE STUDY OF RELATIVE FREQUENCY OF BENIGN AND MALIGNANT OVARIAN TUMOURS

Study	Total	Benign No.	%	Malignant No.	%
Q Memon 24 (2005-2009)	227	181	79.73%	46	20.26%
GG Swamy 22 (2005-2010)	120	86	71.66%	34	28.33%
Farheen Danish 25 (2008-2010)	123	93	75.60%	30	24.39%
Present Study (2012-2014)	120	110	91.67%	10	8.33%

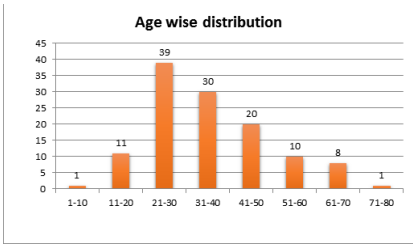


The present study has less incidence of malignant tumours (8.33 %) while more incidence of benign tumours (91.67) that follows the same scenario for all comparable studies.

TABLE – 2 AGE DISTRIBUTION OF OVARIAN TUMOURS

Age	n = 120	(%)
1 – 10	1	0.83%

11 – 20	11	9.17%
21 – 30	39	32.50%
31 – 40	30	25.00%
41 – 50	20	16.67%
51 – 60	10	8.33%
61 – 70	8	6.67%
71 – 80	1	0.83%
Total	120	100%



The study shows that maximum number of ovarian tumours are seen in the age group of 21-40 years (69 cases - 57.5%) as benign tumours are more prevalent and followed in this age group.

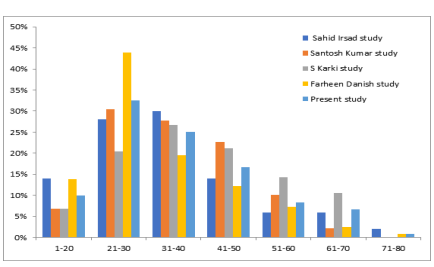
Mean age of distribution was 36.85 years. Median age of distribution of present study is 32.75 years.

TABLE - 2A
COMPARISON OF AGE DISTRIBUTION OF OVARIAN TUMOURS IN VARIOUS STUDIES

Age	Shahid Irshad13 (2001-'04) n=50	Percentage (%)	Santosh Kumar 23 (2001-'10) n=957	Percentage (%)	S Karki 16 (2004-06) n = 161	Percentage (%)	Farheen Danish 25 (2008-'10) n= 123	Percentage (%)	Present study (2012-'14) n= 120	Percentage%
1-10	7	14%	66	6.89 %	11	6.84%	1	0.81%	1	0.83%
11-20							16	13.00 %	11	9.17%
21-30	14	28%	291	30.40 %	33	20.49 %	54	43.90 %	39	32.50 %
31-40	15	30%	265	27.69 %	43	26.71 %	24	19.51 %	30	25%
41-50	7	14%	217	22.67 %	34	21.12 %	15	12.19 %	20	16.67 %
51-60	3	6%	97	10.13 %	23	14.28 %	09	7.31%	10	8.33%
61-70	3	6%	21	2.19 %	17	10.56 %	03	2.43%	08	6.67%
71-80	1	2%	0	0%	0	0%	01	0.81%	01	0.83%
Total	50	100 %	957	100%	161	100%	123	100%	120	100%

Comparison of various studies showed that the most common age group of ovarian tumours is 21-40 years. In our study maximum numbers of ovarian tumours are also seen in the age group of 21-40 years (69 cases = 57.5%), which is comparable with Sahid Irsad study (29 cases = 58%), Santosh Kumar study (556 cases = 50.36%), S Karki study (76 cases = 47.2%) and Farheen Danish study (78 cases = 63.41%).

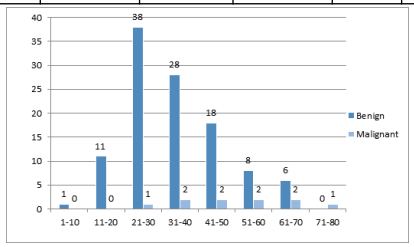
In our study, age group of 1-10 years has a patient age of 5 years which is diagnosed as mature teratoma.



In the present study, the mean age of distribution for ovarian tumours came out to be 36.85 years and median age of distribution is 32.75 years, and that of Farheen Danish 2008-2010 was 24.08 years.

TABLE – 3
AGE DISTRIBUTION OF OVARIAN TUMOURS

Type	Benign (n=110)	Percentage (%)	Malignant (n=10)	Percentage (%)	Total (n=120)	Percentage (%)
1-10	1	0.83%	0	0.00%	1	0.83%
11-20	11	9.17%	0	0.00%	11	9.17%
21-30	38	31.67%	1	0.83%	39	32.50%
31-40	28	23.33%	2	1.66%	30	25.00%
41-50	18	15.00%	2	1.66%	20	16.67%
51-60	8	6.63%	2	1.66%	10	8.33%
61-70	6	5.00%	2	1.66%	8	6.67%
71-80	0	0.00%	1	0.83%	1	0.83%



Summary... This study illustrates that maximum number of benign ovarian tumours (66 cases = 55%) are seen in the age group of 21-40 years i.e. the reproductive age group and it is consistent with 'Incessant ovarian theory' of ovarian tumours. Also malignant tumours were seen maximally in older age group.

MATERIALS AND METHODS

- The present study of ovarian tumour is an observational study conducted for time duration of two years from 1st September 2012 to 31st August 2014 in department of obstetrics and gynaecology of a government medical college and hospital.
- Out of the total 2603 gynaecological admissions over a period ranging from September 2012 to August 2014, 120 ovarian tumours were reported. Thus, the incidence of ovarian tumours in the present study came out to be 4.61% of the total gynaecological admissions.
- Out of the 120 cases with ovarian tumours, 110 were reported to be benign (91.67%) and 10 were reported to be malignant (8.33%).
- Majority of the patients with ovarian tumours in the present study fall in the age group of 21-40 years. The mean age of distribution of patients in this study is 36.85 years and the median age of distribution is 32.75 years.
- In our study benign ovarian were common in the age group of 21-40 years (69 cases = 57.5%) and malignant ovarian tumours were common in 41-80 years of age (7 cases = 5.81%).
- The distribution of cases of ovarian tumours in the context of parity in this study holds the statement of "higher the parity, higher the incidence of ovarian tumour" very true. Majority of cases were multipara (59.17%). 25.83% were nullipara. The youngest age of patient in the present study is 5 years and the oldest age is 80 years, suggesting the wide range of ages over which ovarian tumours are spanned.
- Maximum number of women in our study were from the 3rd and 4th decade of life – 83 cases (69.17%). Twenty five women (20.83%) were postmenopausal. Eleven women (9.17%) were in surgical menopause women as their uterus was removed for various indications.
- Ovarian cancer is often being called as "Silent Killer" because of the non specific symptoms, the clinical presentation of patients in the present study is also very vivid. Most of the patients presented with abdominal pain 87.50% followed by abdominal distension in 10.83%, 6.67% had menstrual irregularities, 5% had discharge P/V, 4.17% with urinary complaints and cachexia in 1.67%.One patient had an incidental finding of ovarian tumour.
- In our study, the consistency of ovarian tumour was cystic in nature in 79.16%, 15% were solid in nature on per vaginal examination.
- Four women (3.33%) presented with torsion of ovarian cyst. All the cases had benign ovarian tumours.
- Among the 47 patients in the study screened for CA-125, 31.91% had the levels of CA-125 raised.
- In our study, in 50 cases (41.66%) U/L salpingo oophorectomy was done indicating benign nature of the ovarian cyst.

- TAH+ B/L salpingo oophorectomy was done in 44 women (36.66%).
- Out of the total 110 cases with benign ovarian tumours, 10.90% were treated with ovarian cystectomy, 44.54% with U/L salpingo oophorectomy, 35.45% TAH+ B/L salpingo oophorectomy, 5.45% B/L salpingo oophorectomy and 3.63% had TAH+ U/L salpingo oophorectomy.
- Out of the 10 malignant ovarian tumour cases, 9 patients i.e. 90.0% had undergone chemotherapy. 7 cases were operable and 3 were non operable.50% underwent TAH+ B/L salpingo oophorectomy, 10% had U/L salpingo oophorectomy, 10% B/L salpingo oophorectomy. 30% of the non operable case were biopsied and referred to radiotherapy unit but were lost to follow up.
- In this study, most frequent tumour was simple serous cyst 22.50%, followed by mature teratoma 17.50% and third common was haemorrhagic cyst 15%.
- Out of the 8.33% cases with malignant ovarian tumours, most common was serous cystadenocarcinoma 4.17%.
- Dehiscence of wound sepsis was 4.16% in our study group.
- There was no mortality reported in this present study.

CONCLUSION

Ovarian tumour is the most serious disease of the female genital tract. This tumour has got wide spectrum in its age distribution , clinical presentations and morphological features. This silent menace has got a very non specific clinical presentation responsible for the delay in the diagnosis. Lack of trustworthy screening techniques adds to the fire of this silent killer and has lead to majority of cases being diagnosed in an advanced stage with guarded or more or less a poor prognosis.

Ovarian tumour has got a wide range of histopathological types each with its own peculiar features, spread and prognosis. Epithelial cancers are the most common ovarian malignancy. Differential diagnosis remains a major problem in histopathology of ovarian tumour especially for poorly differentiated or undifferentiated malignancy.

The importance of thorough surgical staging cannot be over emphasized, because subsequent treatment and prognosis will be determined by the stage of disease. Optimal therapy includes surgical debulking to remove as much tumour and its metastases as possible followed by platinum based combination chemotherapy.

Thus, ovarian cancer presents a tremendous clinical challenge to gynaecologists, medical oncologists, and radiotherapists.

REFERENCES

1. Robbins And Cotran, Pathologic Basic of Disease 8th edition, Chapter 7 Neoplasia, Thomas P. Striker & Vinay Kumar. Page no 260
2. Danish F, Khanzada MS, Mirza T, Aziz S, Naz E, Khan MN. Histomorphological spectrum of ovarian tumours with immunohistochemical analysis of poorly or undifferentiated malignancies. Gomal J Med Sci 2012; 10: 209-15
3. Ferley J, Shin HR, Bray F, Forman D, Mathers C, Parkin DM. Estimates of world wide burden of cancer in 2008: GLOBOCAN 2008. Int J Cancer2010;127(12):2893-917
4. Godwin AK, Testa JR, Hamilton TC: The biology of ovarian cancer development. Cancer 1993, 71:530-536
5. N Adeep et al. Pattern of ovarian tumours among Malaysian women at General Hospital, Kuala Lumpur, Med .J. Malaysia Vol. 47 NO. 2 June 1992
6. Goff BA, Mandel L, Muntz HG, Melancon CH. Ovarian carcinoma diagnosis. Cancer 2000;89:2068-75.
7. G. Ross, et al. Topotecan given as a 21 day infusion in the treatment of advanced ovarian cancer British journal of cancer (2001) 84(8, 1043-1046)
8. H. Strama, et al. Intraperitoneal hyperthermic perfusion chemotherapy (IPHC) of patients with chemotherapy-resistant peritoneal disseminated ovarian cancer. Int J of Gynecol Cancer 2001, 11 (suppl.1) 57-63
9. M Markman et al. Primary ovarian cancer chemotherapy: current standards of care British journal of cancer (2003) 89 (Suppl 3), S3 – S8
10. Ramesh Dawar. Surface epithelial tumours of ovary. Indian Journal of Medical & Pediatric oncology, Vol. 25, No. 1, 2004 Pg 5-9
11. Shinde Mangala Ashok, et al. Ovarian germ cell tumour : A 3 years study. The Journal of Obstetrics and Gynecolgy of India, Vol. 55, no.1: January/February 2005;61-63
12. Mohapatra P. C and et al. Intra operative cytology of ovarian tumours. The Journal of Obstetrics and Gynaecology of India, Vol. 55, no.4: July/August 2005 Pg. 345-349.