



Original Research Article

To study the relationship of parity and laterality with different ovarian lesions

Dupinder Kaur^{1,*}, Pooja Agarwal¹¹Dept. of Pathology, Shri Ram Murti Smarak Institute Of Medical Sciences, Bareilly, Uttar Pradesh, India

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ABSTRACT

Background and Methods: The present study is based on histomorphological evaluation in 107 cases of Ovarian neoplastic and non-neoplastic lesions received. The gross specimens received were fixed in 10 percent formalin for 24 hours. Gross examination was done carefully examining the outer surface and on-cut surface of ovary, looking for any cyst with its content and type of fluid filled inside, any solid area, papillary projections and growth.

Study Designed: Observational study.

Result: Among 69 non neoplastic lesions, right sided cases found in 34 (49.4%), and left sided lesion found in 22 cases (31.8%). 13 cases (18.8%) of non neoplastic lesions are observed to be bilateral. Like non neoplastic lesions, neoplastic lesions are also found more common on right side (55%) than left (35%), while bilaterality is found in 10% of the cases.

Conclusion: The results of present study are comparable to other series of studies regarding occurrence with respect to age, bilaterality, gross features and microscopy. Both non neoplastic and neoplastic lesions were more common in right side. 18% of non neoplastic and 11% of neoplastic lesions were found to be bilateral.

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1. Introduction

Ovary is exceptional in the assortment of injuries that can emerge from it. The perplexing life structures of ovary and its exceptional physiology offer ascent to number of cell types every one of which is fit for offering ascend to tumors.

Information on the ovary and the slow development of utilization of this word to be utilized as female testicle have been assessed by Gruhn,¹ yet it is just with the incredible Morgagni that the story truly begins.² In his work 'The Seats and Causes of Diseases' he alludes to 'vesicles loaded up with grumous material' and a tumor that was 'clearly hard' implying that he would had experienced dermoid sores. Matthew Baillie, additionally perceived dermoid growths, having a segment in his 'Horrible Anatomy of the Human Body' on 'the ovaria changed into a greasy substance with hair and teeth.'³

In nineteenth century various commitments were made by a few specialists. Dr Thomas Hodgkin depicted to what we currently perceive as serous growths of the ovaries.^{4,5} Depiction on mid-region, including ovarian tumor was given by Dr Richard Bright.⁶ As carefully evaluated by Shenoy and Scheithauer,⁷ yet he didn't perceived that this sort of ovarian tumor addressed spread from extra-ovarian neoplasms.

Aside from his unmistakably outlining the Brenner tumor as a particular neoplasm separate from different tumors with an isolated example, for example, the granulosa cell tumor, he explained on the different morphologic highlights of the granulosa cell tumor. Rokitansky originally portrayed what we presently know as the granulosa cell tumor, yet it was not until 1895 that von Kahlden⁸ described the histological highlights of this tumor in detail and the assignment 'granulosa cell tumor' was presented in 1914 by von Werdt.⁹

* Corresponding author.

E-mail address: dupindercaur@gmail.com (D. Kaur).

2. Materials and Methods

The present study is based on histomorphological evaluation in 107 cases of Ovarian neoplastic and non-neoplastic lesions received at the department of Pathology of SRMS IMS Bareilly.

The gross examples got were fixed in 10% formalin for 24 hours. Net assessment was done cautiously inspecting the external surface and on-cut surface of ovary, searching for any sore with its substance and kind of liquid filled inside, any strong zone, papillary projections and development. Related tissue piece whenever got were additionally painstakingly inspected and earned. Various segments from every example were taken to incorporate the delegate region for histological assessment. Areas were prepared by routine paraffin strategy and squares were cut at five micron thickness. Areas were stained with ordinary Hematoxylin and Eosin (H&E) stain. Slides were analyzed and the sores were then characterized and concentrated according to the W.H.O. arrangement of ovarian tumors.

3. Results

Table 1: Sidedness (Right/Left), Unilaterality / Bilaterality In non neoplastic ovarian lesions

Histoogical types	Left	Right	Bilateral
I. Inflammation			
Chronic non specific	02	03	01
Tuberculous	01	01	00
Ii. Cystic lesions			
Follicular cyst	04	03	00
Simple serous cyst	07	11	06
Luteal cyst	03	09	05
Hemorrhagic cyst	02	06	01
Iii. Endometriosis			
Chocolate cyst	03	01	00
Total	22	34	13
Percentage	31.8%	49.4%	18.8%

Table 1 Among 69 non neoplastic lesions, right sided cases found in 34 (49.4%), and left sided lesion found in 22 cases (31.8%). 13 cases (18.8%) of non neoplastic lesions are observed to be bilateral.

Table 2: Distribution of laterality in ovarian neoplasm

Histoogical types	Left	Right	Bilateral	Total
Benign	07	14	02	23
Borderline	01	01	00	02
Malignant	06	07	02	15
Total	14	22	04	40
Percentage	35%	55%	10%	100%

Table 2 Like non neoplastic lesions, neoplastic lesions are also found more common on right side (55%) than left (35%), while bilaterality is found in 10% of the cases.

4. Discussion

Sex-cord stromal tumors establish about 08% of ovarian neoplasms and all age bunches are influenced. These tumors bring additional interest in view of their hormonal impacts which are uncommon in other ovarian neoplasms.¹⁰ Granulosa cell tumor is the most well-known harmful sex-ropo stromal tumor just as the most widely recognized estrogen-delivering ovarian tumor. Grown-up granulosa cell tumors are undeniably more normal than the adolescent kind. They happen transcendentally in peri- and postmenopausal ladies,¹¹ This is tantamount to our discoveries as we discovered 02 instances of granulosa cell tumor and 02cases of fibrothecoma and one instance of fibroma.

Pinnacle frequency of ovarian tumor is between 21-40 years. Generous ovarian tumors happen taking all things together age bunch where as dangerous ovarian tumors are more normal in elderly,¹¹ Majority of favorable serous tumors happen in fourth sixth decade despite the fact that they may happen in patients more youthful than 20 or more established than 80 years. Serous carcinomas are very uncommon in initial twenty years of life, normal patient age for serous carcinomas is 56 years. Mucinous cystadenoma may happen at whatever stage in life however are regularly analyzed in fourth sixth decade. Mucinous malignancies have mean age of 53-54 yrs. We additionally discovered almost comparable results.¹²

Limit of the patient with danger were more than 45 years (45%) which is similar to examine done by Chakrabortti and Lee.¹³

5. Conclusion

The results of present study are comparable to other series of studies regarding occurrence with respect to age, bilaterality, gross features and microscopy. Both non neoplastic and neoplastic lesions were more common in right side. 18.8% of non neoplastic and 10% of neoplastic lesions was found to be bilateral.

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7. Conflicts of Interest

There are no conflicts of interest.

References

- Gruhn JG. A selected historical survey pathology emphasizing neoplasms. In: Roth L, Czernobilsky B, editors. Tumours and Tumour-like Conditions of the Ovary. New York: Churchill Livingstone; 1985.
- Ahmad Z, Kayani N, Hasan SH, Muzaffar S, Gill MS. Histological pattern of ovarian neoplasm. *J Pak Med Assoc.* 2000;50:416-9.

3. Oumachigui, Narasimhan KL, Reddy KS. A clinicopathologic study of ovarian tumours in children. *J Obstet Gynecol.* 1991;140:441–5.
4. Chakrabortti DK, Lee CMS. Epidemiological study ovarian neoplasms. *J Obstet gynaecol India.* 1990;40:582–6.
5. Bren JL, Maxon WS. Ovarian tumours in children and adolescents. *Clin Obstet Gynecol.* 1857;20:607–23.
6. Bright JR. Observations on abdominal tumours and intumescence: illustrated by cases of ovarian disease; 1838.
7. Shenoy B, Scheithauer B. Paget's perspectives in pathology. *Mayo Clin Proc.* 1988;63(2):184–92. doi:10.1016/s0025-6196(12)64951-9.
8. Kahlden CV. Über eine eigentümliche Form des Ovarialcarcinoma. *Zentralbl Allg Pathol.* 1895;6:257.
9. and FVW. Über Granulosazelltumouren des Ovariums. *Beitr Pathol Anat.* 1914;59:453–90.
10. Sawai MM, Sirsat MV. Ovarian neoplasm in children and adolescents. *Indian J Cancer.* 1973;10:302–11.
11. Herbst AL. The epidemiology of ovarian carcinoma and the current status of tumor markers to detect disease. *Am J Obstet Gynecol.* 1994;170(4):1099–107. doi:10.1016/s0002-9378(94)70104-0.
12. Bonito LD, Patriarca S, Delendi M, Alberico S. Ovarian tumours: anatomohistopathological contribution to their interpretation. *Eur J Gynaecol Oncol.* 1988;9:324–30.
13. Chakrabortti DK, Lee CMS. Epidemiological study ovarian neoplasms. *J Obstet gynaecol India.* 1990;40:582–6.

Author biography

Dupinder Kaur, Resident

Pooja Agarwal, Associate Professor

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