

Clinico-Pathological Study of ovarian tumors: A two years study at LMC & Teaching Hospital, Tansen – 11, Parvas, Palpa

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ABSTRACT

Ovarian neoplasm is the commonest condition observed in gynecology practice. Both non-neoplastic as well neoplastic ovarian tumors are common. In the present study neoplastic ovarian tumors were analyzed for their age of occurrence, site of ovary involved and histological typing. Oophrectomy/Hysterectomy and Oophrectomy was performed on patient suffering from ovarian tumors and the specimens were sent to Pathology department LMC & Teaching Hospital for their histological study. The present study of 40 cases of ovarian neoplasm is from 2068/05/05 B.S. to 2070/05/30 B.S. The mean age of patient was 39 years with S.D of 1.25 years. The size of the tumor varies from 5 cm to 32.9 cm and weight varies from 41 gms to 350 gms. Commonest tumor was mature cystic teratoma (52.5 %) followed by serous cyst adenoma (30%). Not much difference was found for ovarian tumor regarding its site right and left ovary. Only two cases of malignant ovarian neoplasm were found in this study, one case (2.5 %) was of immature cystic teratoma and another (2.5 %) was of serous cyst adenocarcinoma.

Keywords:

INTRODUCTION

Ovarian cysts, both neoplastic and non-neoplastic are quiet common. No age is immune on developing ovarian tumors. Non-neoplastic cysts are mostly related to hormonal imbalance but neoplastic ones are due to some genetic and acquired causes. The tumors may arise from surface epithelium, germinal epithelium and stromal cells of the ovary. They are classified on the basis of their origin. This study was carried out on clinically diagnosed ovarian tumors and its histological typing in Lumbini Medical College & Teaching Hospital.

MATERIALS AND METHODS

The study comprised of 40 numbers of ovarian tumors diagnosed in the Obstetrics & Gynecology department in LMC & Teaching Hospital from 2068/05/05 B.S to 2070/05/30 B.S. After obtaining clinical details regarding age and symptoms which were lower abdominal discomfort, dysmenorrhoea and irregular menstrual cycle. The operative procedure Oophrectomy/Hysterectomy with Oophrectomy was done and specimens were subjected to Department of Pathology for their histological examination.

RESULTS

In the present study 40 cases of clinically diagnosed ovarian tumors were analyzed for age group, site of the ovary involved and histological typing of neoplasm.

From the above table it appears that the maximum

number of 12 cases (30 %) was found in age group of 31-40 years followed by 10 cases (25%) in the age group 41-50 years. Practically same incidences of 7 cases each (17.5%) were found in the age group of 21-30 years and 51-60 years. Mean age group for ovarian tumor was found to be 39 years with S.D of 1.25 years.

So far the site of ovarian tumor is concerned the commonest site was right ovary 21 cases (52.5%) and left ovary 17 cases (42.5%). Bilateral ovarian involvement was found in only 2 cases (5%).

Most common ovarian tumor in present study was Mature cystic teratoma 21 cases (52.5 %) followed by Serous Cyst adenoma 12 cases (30 %). Mucinous cyst adenoma was found in 4 cases (10 %). One case (2.5 %) each was of Brenner tumor (Benign type), malignant serous cyst adenoma and immature cystic teratoma.

DISCUSSION

The mean age for ovarian tumor in the present study was 39 years with S.D of 1.25 years. The mean age for ovarian tumor of 38 years was reported by Pudasaini *et al*¹ and 33 years by Ghimire *et al*.²

Commonest age for ovarian neoplasm in the present study was 31-40 years and practically with the same incidence of 25 % with mean age group of 41-50 years. Youngest age group for ovarian neoplasm in the present study was 10-20 years (5%).

Table 1: Showing age groups of Ovarian Tumors

S.N	Age Group (In Years)	No. of cases	Percentage
1	11-20	2	5%
2	21-30	7	17.5%
3	31-40	12	30%
4	41-50	10	25%
5	51-60	7	17.5%
6	61- 70	2	5%
	Total no. of cases	40	100 %

Table 2: Ahowing the site of involvement

S.N	Site	No. of cases	Percentage
1	Right	21	52.5 %
2	Left	17	42.5 %
3	Bilateral	2	5 %
	Total	40	100 %

Table 3: Showing the morphological types of ovarian neoplasm

S.N	Morphology	No. of cases	Percentage
1	Serous cyst Adenoma	12	30 %
2	Serous cyst adenocarcinoma	1	2.5 %
3	Mucinous cyst adenoma	4	10 %
4	Brenner’s Tumor (Benign)	1	2.5 %
5	Mature Cystic Teratoma	21	52.5 %
6	Immature Cystic Teratoma	1	2.5 %
	Total	40	100 %

So far the site of ovary involved in ovarian neoplasm is concerned there was not much difference as compared to Right ovary (52.5%) and Left ovary (42.5%). Bilateral ovarian neoplasms were seen in only 5 % of cases in the present study. Bilateral ovarian tumors involvement was reported in 8.49% of cases by Ghimire *et al* but its higher incidence of 18.6 % was observed by Pudasaini *et al*.¹

Benign ovarian tumors were common in present study (95 %). A similar incidence of 83.9 % was reported by Jha and Karki,³ 87.3 % by Pudasaini *et al* and 89.42 % by Ghimire *et al*. Somewhat lower incidence of 72.9 % was reported by Gupta *et al*.⁴

Germ cell tumor, mature cystic Teratoma was commonest ovarian tumor 21 cases (52.5 %) in the present study. The mature cystic teratoma was also observed to be commonest tumor by Jha *et al*, Ghimire *et al*, Thurlbeck WM *et al*,⁵ Peterson WF,⁶ Dhakal *et al*⁸ and Sha *et al*.⁹

Surface epithelial tumors consisting of serous cyst adenoma, mucinous cyst adenoma and benign Brenner tumor were seen in 17 cases (42.5 %) in present study. Similar observation of 48.8 % has been reported by Gupta *et al*, 52.5 % by Jha and karki *et al* and 43.6 % by Ghimire *et al*. Yasmin *et al*⁷ has reported somewhat higher incidence of 76.5 %.

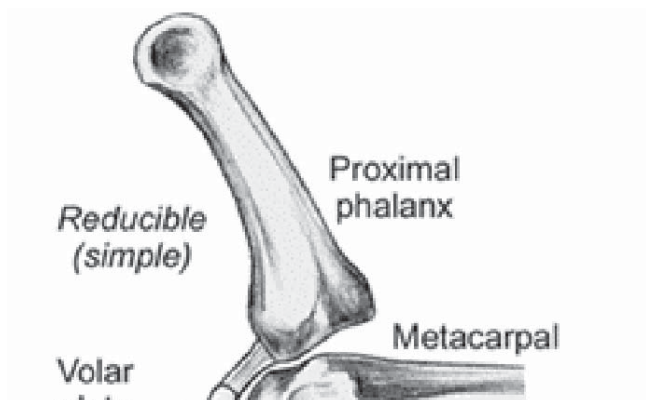


Fig. 1: Immature cystic teratoma showing the glial tissue and choroid plexus, H&E stain 10X

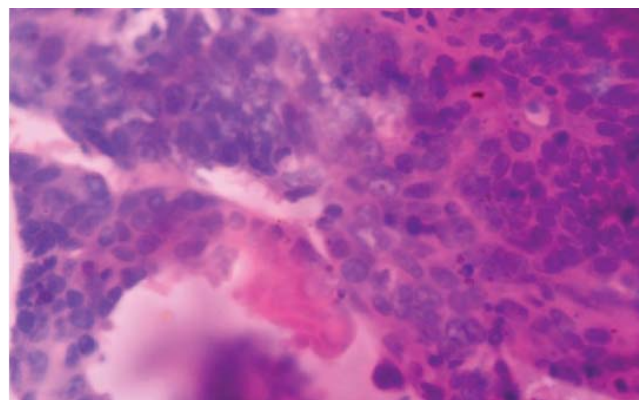


Fig. 2: Serous cyst adenocarcinoma showing sheets of epithelial malignant cells with papillary formation. H&E stain 40X.

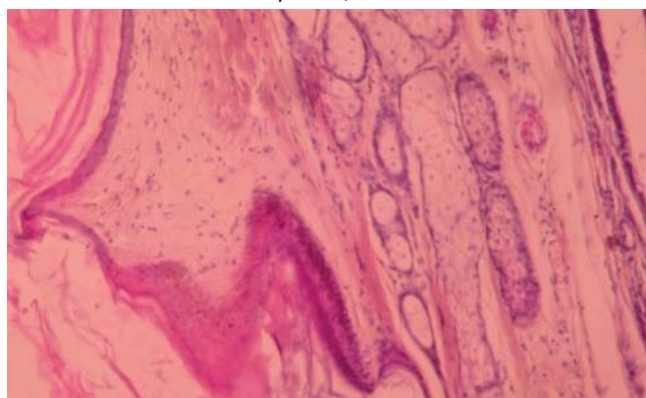


Fig. 3: Mature cystic teratoma showing epidermis and appendages. H&E stain 10X

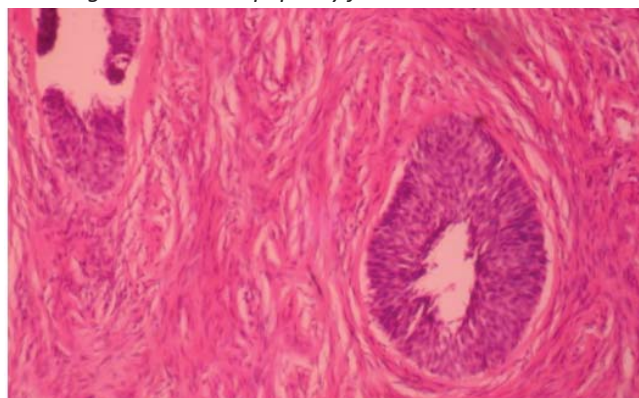


Fig. 4: Benign Brenner tumor showing islands of transitional epithelium (Walthard nests) H&E stain 10X

Only two cases malignant ovarian tumor, one surface epithelial tumor Mucinous cyst adenocarcinoma (2.5 %) and one case of germ cell tumor Immature cystic teratoma (2.5 %) were observed in present study. Incidence of malignant immature teratoma of 9.43 % was observed by Ghimire *et al.*

CONCLUSION

Ovarian neoplasms were clinically seen from the age group of 15 – 60 years. Majority of the ovarian tumors were unilateral. Maximum numbers of ovarian neoplasm were benign germ cell tumor, mature cystic teratoma followed by benign surface epithelial tumor serous cyst adenocarcinoma. Only two cases of malignant ovarian neoplasm were observed, one case was of immature cystic teratoma and another case was of serous cyst adenocarcinoma.

REFERENCES

1. Pudasaini S, Lakhey M, Hirachand S, Akhter J, Thapa B. A study of ovarian cysts in a tertiary hospital of Kathmandu valley. *Nepal Med Coll J* 2011; 13(1): 39-41
2. Ghimire R, Ghimre PG, Goel RG. Histopathological spectrum of ovarian mass lesions: A three years study at Nepalgunj Medical College –Teaching Hospital. *J Nepalgunj Med Coll* 2012; 10(1): 22-5.
3. Jha R and Karki S. Histopathological patterns of ovarian tumors and their age distribution. *Nepal Med Coll J* 2008; 10(2): 81-5.
4. Gupta and Bisht D, Agarwal AK, Sharma VK. Retrospective and prospective study of ovarian tumors and tumor -like lesions. *Ind J Pathol Microbiol* 2007; 50(3): 525-7.
5. Thurlbeck WM, Scully RE. Solid teratoma of the ovary. A clinico-pathological analysis of 9 cases. *Cancer* 1960; 13: 804-11.
6. Peterson WF. Solid, histologically benign teratoma of ovary. A report of four cases and review of literature. *Am j Obstet Gynecol* 1956; 72: 1094-1102.
7. Yasmin S, Yasmin A, Asif M. Clinicohistological pattern of ovarian tumors in Peshawar region. *J Ayub Med Coll Abbottabad* 2008; 20(4): 11-3.
8. Dhakal HP, Pradhan M. Histological pattern of gynecological cancers. *J Nepal Med Assoc* 2009; 48 (176): 301-5.
9. Sah SP, Uprety D, Rani S. Germ cell tumors of ovary in clinico-pathological study of 121 cases from Nepal. *J Obstet Gynecol Res* 2004; 30(4): 303-8.