ORIGINAL ARTICLE https://doi.org/10.3329/jmcwh.v21i1.81067

HISTOPATHOLOGICAL SPECTRUM OF FEMALE GENITAL TRACT LESIONS - A RETROSPECTIVE STUDY IN A TERTIARY CARE HOSPITAL

Tamanna Choudhury[1*], Sabrina Razzaque[1], Rizwana Sharmin[1], Rahnuma Ahmad[2]

ABSTRACT

Background: Histopathological examination gives much valuable information about the disease process in addition to the confirmation of the diagnosis of any surgically removed tissues or organs.The female genital tract lesions are diverse in nature and constitute a large majority of surgical cases in a histopathology laboratory. **Aim:** This study aims to observe and analyze the histopathological spectrum of female genital tract lesions. **Materials and Method:** This retrospective study was carried out in the Department of Pathology, Medical College for Women and Hospital (MCW&H) Dhaka. The data of the female genital tract (uterus, cervix, endometrial tissue, ovary, fallopian tube, vulva, and vaginal tissue, etc.) lesions, recorded during the period from 1st January 2021 to 31st December 2023 in the register of the Histopathology and Cytopathology Laboratory of MCW&H, were the study material. Incomplete information or non-diagnostic samples were excluded from the study. The information was recorded in a predesigned data collection sheet.Statistical analysis was done with frequency and percentage. Online statistical calculator and Microsoft Office Excel was used for conducting the analysis. **Results**: A total of 989 surgical specimens from female genital tract were observed in the present study.The age range was from 08-80 years and most of the patients were in the age group of 31 to 40 years. The non neoplastic lesions constituted majority (60.06%) of the total study specimens.In the neoplastic group, majority (89.62%) were benign. Leiomyoma was the most common benign neoplasm in our study. In malignant group invasive squamous cell carcinoma constituted the majority. **Conclusion:** Histopathology is the ultimate cornerstone in diagnosis of any surgical specimen. In order to ensure optimal and proper management, histopathology examination of all gynecological surgical samples is mandatory.

Keywords: Histopathological spectrum, Female genital tract, Neoplastic lesion, Hysterectomy, Leiomyoma, Invasive squamous cell carcinoma.

Cite this article: Choudhury T, Razzaque S, Sharmin R, Ahmad R. Histopathological spectrum of female genital tract lesions-A retrospective study in a tertiary care hospital. J Med Coll Women Hosp.2025; 21(1): 59-74. https://doi.org/10.3329/jmcwh.v21i1.81067

INTRODUCTION

The female genital tract (FGT) comprises the upper genital tract encompassing the uterus having a corpus or body and cervix, fallopian tubes, and ovaries and the lower genital tract which includes the mons pubis, labia majora, labia minora, vagina, clitoris, and Bartholin's glands[1]. Diseases of the FGT are among one of the most important causes for medical consultations for women and are frequently seen in clinical as well as in histopathology practices.

1*. Department of Pathology, Medical College for Women and Hospital, Dhaka, Bangladesh. Email address: ctamanna317@yahoo.com, [Address of correspondence]

1. Department of Pathology, Medical College for Women and Hospital, Dhaka, Bangladesh.
2. Department of Physiology, Medical College for Women and Hospital, Dhaka, Bangladesh

The FGT is susceptible to a broad range of pathological conditions, from infectious diseases, pregnancy related complications, diseases induced by hormones, premalignant changes, and neoplasms both benign and malignant[2].

Lesions are commonly found in the uterus especially cervix and corpus, ovaries and vagina, with the vulva and fallopian tubes being less frequently affected[3]. The incidence and the distribution patterns of FGT lesions vary globally and across age groups. For example, according to GLOBOCAN 2020, the most common cancers in the United States (US) for women are breast, lung, and colorectal cancers in descending order of frequency.In Bangladesh,cancer of the uterine cervix ranks second only to breast cancer,whereas in the US, the cervical cancer rates are lower, than in this region of the world, which may be attributed to widespread screening practices[4].

Gynecological surgical specimens constitute the major bulk of specimen frequently encountered in histopathology laboratories within general hospitals. Hysterectomy is the most preferred method to treat and manage gynecological disorders. Indications of hysterectomy include abnormal uterine bleeding (AUB), uterine fibroids, endometrial polyps, endometrial carcinoma and cervical neoplasia[5].

Hysterectomy has diagnostic importance when histopathological examination is done, and has therapeutic significance as well. Histopathological examination of surgical specimens plays a crucial role in diagnosing these specimens, particularly for neoplastic lesions, where it aids in specific classification and pathological staging of malignancies which are essential steps for patient treatment and further management[6].

This study reports the histopathological spectrum of FGT lesions observed over a period of three years in a tertiary care hospital of Bangladesh. Our findings may contribute towards planning and further developing strategies for therapeutic management of gynecological diseases in this region.

MATERIALS AND METHOD

Study design

This was a retrospective, observational, hospital-based study.

Study Setting

This study was conducted in the Department of Pathology, at the Medical College for Women and Hospital (MCW&H), Uttara, Dhaka, a 550-bed multidisciplinary tertiary care center. The patient population represented diverse socioeconomic backgrounds from both rural and urban areas.

Study Duration

The study included histopathological reports of gynecological surgical specimens received and diagnosed during the time period of 1st January 2021 to 31st December 2023.

Inclusion criteria

Specimen types included that of hysterectomy (with or without unilateral or bilateral salphingo–ophorectomy), endometrial curettage, myomectomy, cervical biopsy, ovarian cystectomy, oophorectomy, salphingectomy, tissues from labia and vagina, lower uterine caesarian section (LUCS) scar tissue, tissue from pouch of Douglas and placenta.

Exclusion criteria

Reports were excluded if patient information was incomplete, tissue samples were inadequate, and where definitive diagnosis could not be reached.

Data collection

Data were collected using a standardized sheet that captured patient age, specimen type, clinical diagnosis and final histopathological diagnosis. All these information was obtained from the histopathology laboratory records at MCW&H.

Statistical analysis

Statistical analysis was done with frequency and percentage. Online statistical calculator and Microsoft Office Excel was used for conducting the analysis.

Ethical issue

This study received approval from the Institutional Ethical Committee of MCW&H (Memo no. MCWH/Ethical Committee/2024/08).

RESULTS

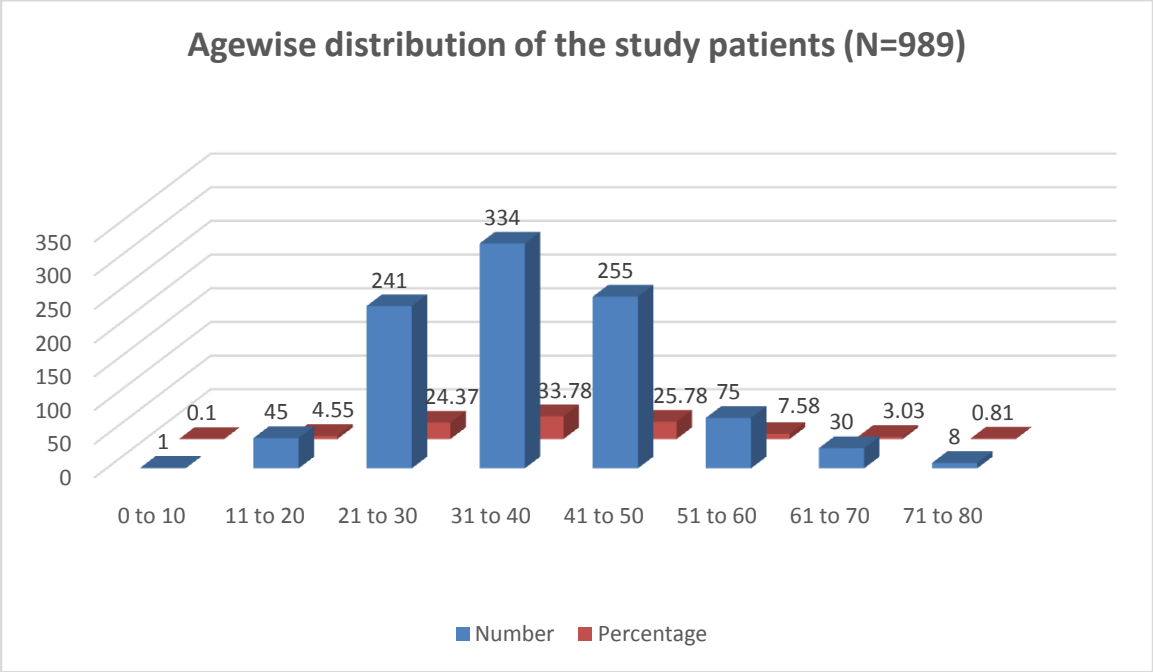
A total of 989 surgical specimens from female genital tract were observed in the present study. Table 1 displays the different types of surgical specimens in this study.

Table 1: Distribution of different types of surgical specimens (N=989)

Types of surgical specimens	Number	Percentage (%)
1. Total abdominal hysterectomy (TAH)	220	22.24
2. TAH with uni/bilateral salpingo-oophorectomy	105	10.62
3. Endometrial curettage	201	20.33
4. Cervical biopsy	81	8.19
5. Excised cervical polyp	36	3.64
6. Myomectomy	67	6.78
7. Oophorectomy / ovarian cystectomy	166	16.78
8. Salpingectomy	61	6.17
9. Labial cyst/ Labial tissue	21	2.12
10. Vaginal tissue/vault tissue	12	1.21
11. Vulval tissue	08	0.81
12. Tissue from deposit on uterine surface, Lower Uterine Ceaserian Section (LUCS) scar tissue, tissue from perineum, hymen, mons pubis, fourchette	08	0.81
13. Placental tissue	03	0.30
TOTAL	**989**	**100**

N= Total number of surgical specimens

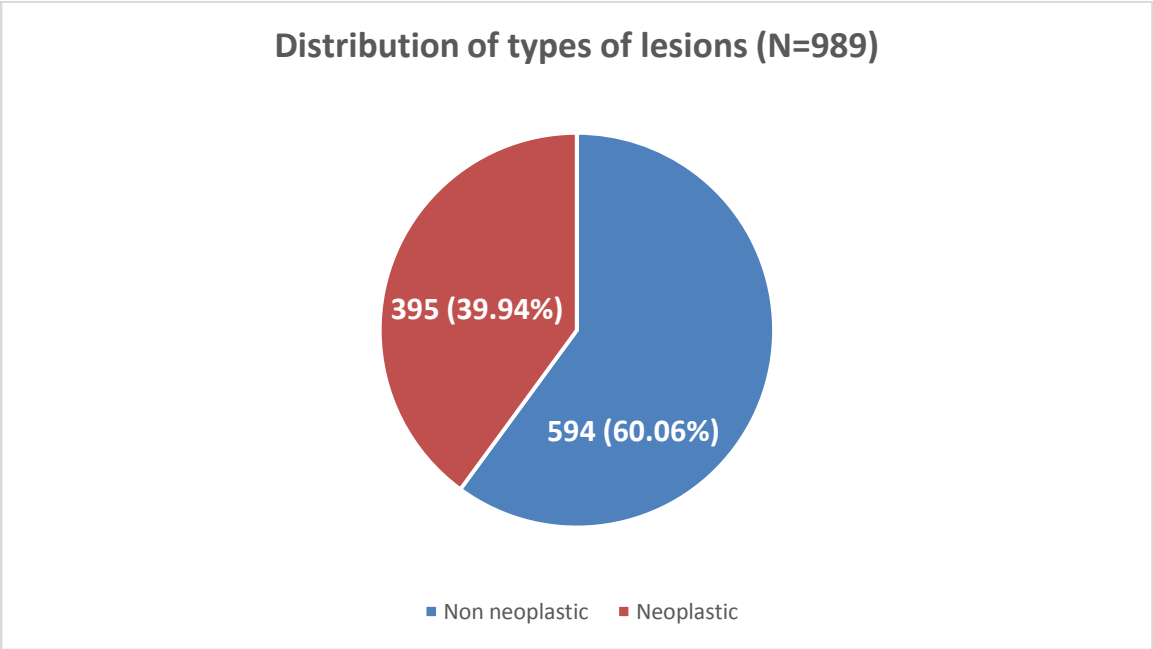
Total abdominal hysterectomy (TAH) or simple hysterectomy was the most common (22.64%) type of surgical specimens followed by endometrial curettage (20.32%) and oophorectomy / ovarian cystectomy (16.78%). Total abdominal hysterectomy with uni/bilateral salpingo-oophorectomy was 10.62%. The least common (0.03%) surgical sample was placental tissue.



N= Total number of the study patients

Figure 1: Agewise distribution of the study patients

Figure 1 illustrates that the age range of the study patients was from 08-80 years with most (33.78 %) of the patients being in the age group of 31 to 40 years followed by age group of 41 to 50 years.

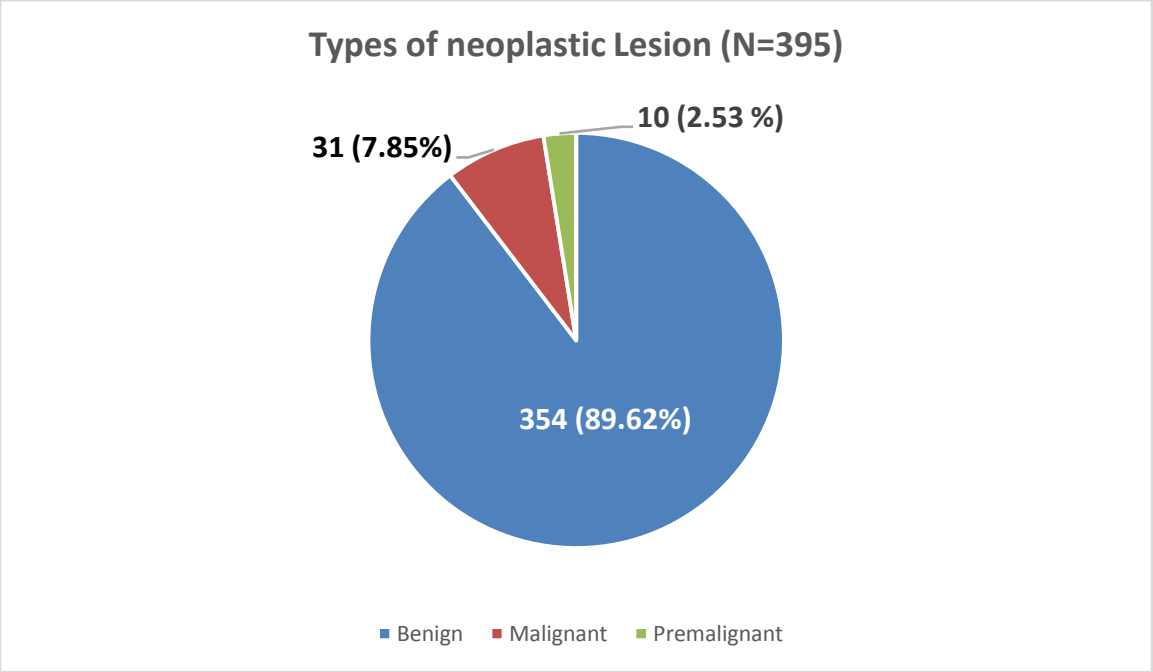


N= Total number of surgical specimens

Figure 2: Distribution of the types of lesions

Histopathological spectrum of female genital tract lesions

In this study, the non- neoplastic lesions constituted majority (60.06%) of the total study specimens (Figure 2).



N= Total number of neoplastic lesions

Figure 3: Types of neoplastic lesions

In the neoplastic group, as shown in Figure 3, majority (89.62%) were benign in histopathological diagnosis. The 10 premalignant lesions (2.53%) included 03 specimens of ovarian borderline tumors and 07 cervical high grade squamous intraepithelial lesions (HSIL). Malignant lesions (7.85%) included 22 cervical carcinoma, 05 malignant ovarian tumors, 02 vaginal invasive squamous cell carcinoma (SCC), and 01 each of vaginal vault invasive SCC and cervical carcinoma insitu.

Table 2: Histopathopathological spectrum of neoplasms in female genital tract (N=395)

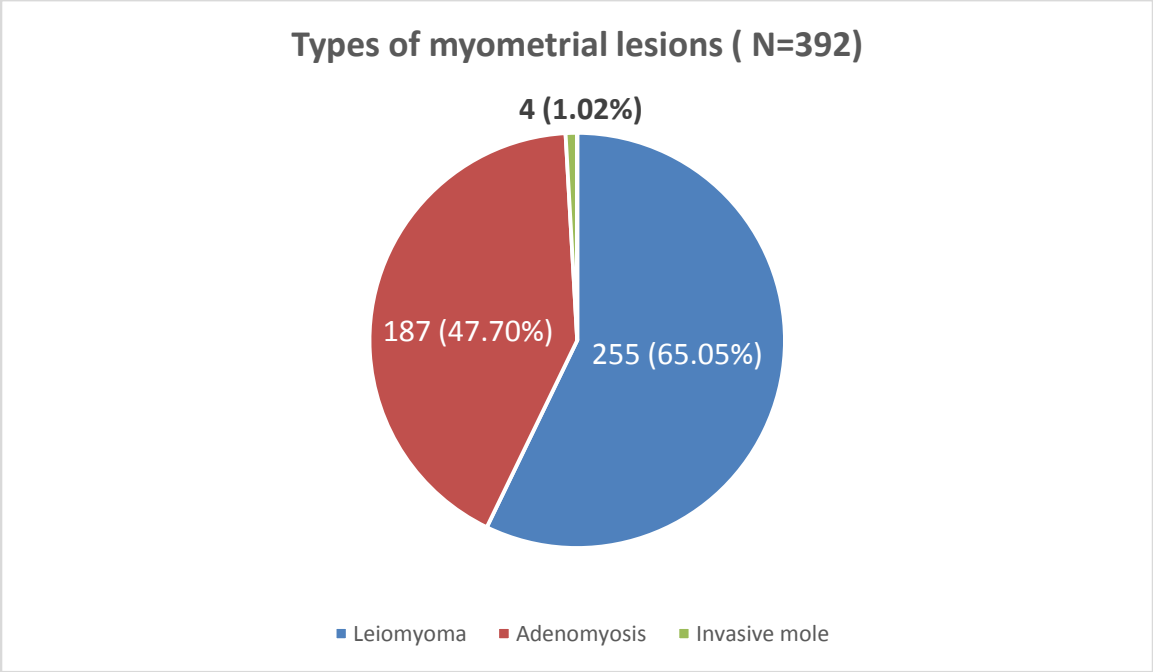
	BENIGN	Number	PREMALIGNANT	Number	MALIGNANT	Number
UTERINE CORPUS	Leiomyoma	255				
ENDOMETRIUM					Invasive SCC	01
CERVIX	Leiomyoma	01			Invasive SCC	20
			HSIL	07	Adenocarcinoma	01
					Squamous cell carcinoma in situ	01
OVARY						
	Mature cystic teratoma	35	Mucinous borderline tumor	O2	Mucinous adenocarcinoma	02
	Serous cystadenoma	31	Serous borderline tumor	01	Serous adenocarcinoma	01
	Mucinous cystadenoma	11			Immature teratoma	01
	Fibroma	07			Dysgerminomas	01
	Papillary serous cyst adenofibroma	05				

Table 2 (continued)

	BENIGN	Number	PREMALIGNANT	Number	MALIGNANT	Number
	Seromucinous cystadenoma	01				
	Fibrothecoma	01				
	Brenner tumor (benign)	01				
LABIA	Hidradenoma papilliferum	02				
	Lipoma	01				
	Lipofibroma	01				
VAGINA/ VAGINAL VAULT TISSUE					Invasive SCC	03
TISSUE FROM MONS PUBIS	Benign fibrous histiocytoma	01				
TISSUE FROM PERINEUM	Hidradenoma papilliferum	01				
TOTAL		**354**		**10**		**31**

N= Total number of neoplastic lesions; HSIL=High grade squamous intraepithelial lesion; SSC=Squamous cell carcinoma

Table 2 illustrates the different histopathologic types of neoplastic lesions including benign, premalignant and malignant lesions observed in the current study.



N= Total number of myometrial lesions

Figure 4: Types of myometrial lesions

Figure 4 displays that out of a total of 392 samples of hysterectomy and myomectomy specimens, the most common pathology in the myometrium was leiomyoma (65.05%) followed by adenomyosis (47.70%). Both leiomyoma and adenomyosis were present in 117 cases. In rest of the hysterectomy specimens the diagnoses were other lesions of the uterus.

Table 3 : Histopathological diagnosis of uterine cervical lesions (N=442)

Histopathological diagnosis	Number	Percentage (%)
Chronic cervicitis(non specific) /Chronic cervicitis with squamous metaplasia	307	69.46
Chronic cervicitis compatible with prolapse	56	12.67
Endocervical polyp	36	8.14
Invasive squamous cell carcinoma	20	4.52
Low grade squamous intraepithelial lesion (LSIL)	09	2.03
High grade squamous intraepithelial lesions (HSIL)	07	1.58
Nabothian cyst	03	0.68
Adenomyomatous polyp	01	0.23
Leiomyoma	01	0.23
Carcinoma in situ(CIS)	01	0.23
Adenocarcinoma	01	0.23
TOTAL	**442**	**100**

N= total number of uterine cervical lesions

Table 3 shows that out of total 442 hysterectomies, cervical biopsy and cervical polyp specimens, majority (69.46%) were diagnosed as non specific chronic cervicitis and chronic cervicitis with squamous metaplasia. This was followed by chronic cervicitis compatible with uterine prolapse (12.76%). Endocervical polyp was diagnosed in 8.14%. Premalignant lesion, HSIL was observed in 07 specimens.Invasive squamous cell carcinoma was found in 20 cases (4.52%).

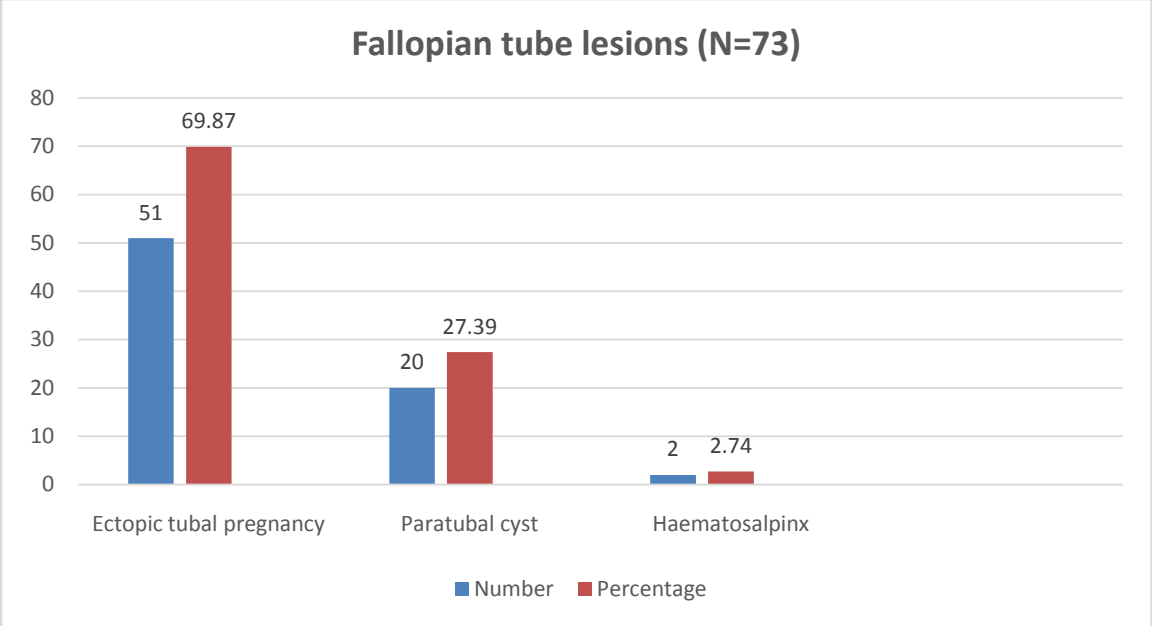
Table 4: Endometrial lesions (N =201)

Types of lesions	Number	Percentage (%)
Proliferative phase	42	20.89
Late secretory phase	25	12.44
Late secretory phase with exogenous hormone effect	14	6.96
Early secretory phase	09	4.48
Retained products of conception	33	16.42
Hydatidiform mole	12	5.97
Decidual endometrium	07	3.48
Senile cystic change	05	2.49
Endometrial hyperplasiawithout atypia	03	1.49
Endometrial polyp	27	13.44
Acute / chronic endometritis	6	2.98
Invasive squamous cell carcinoma	01	0.50
Dissociated endometrial glands/ blood clot/mucus fragment	17	8.46
TOTAL	201	100

N= Total number of endometrial lesions

Table 4 displays the different types of endometrial lesions diagnosed in 201 cases of endometrial curettage specimens. Proliferative phase of endometrium was the most common (20.89%) diagnosis followed by retained product of conception (16.42%).

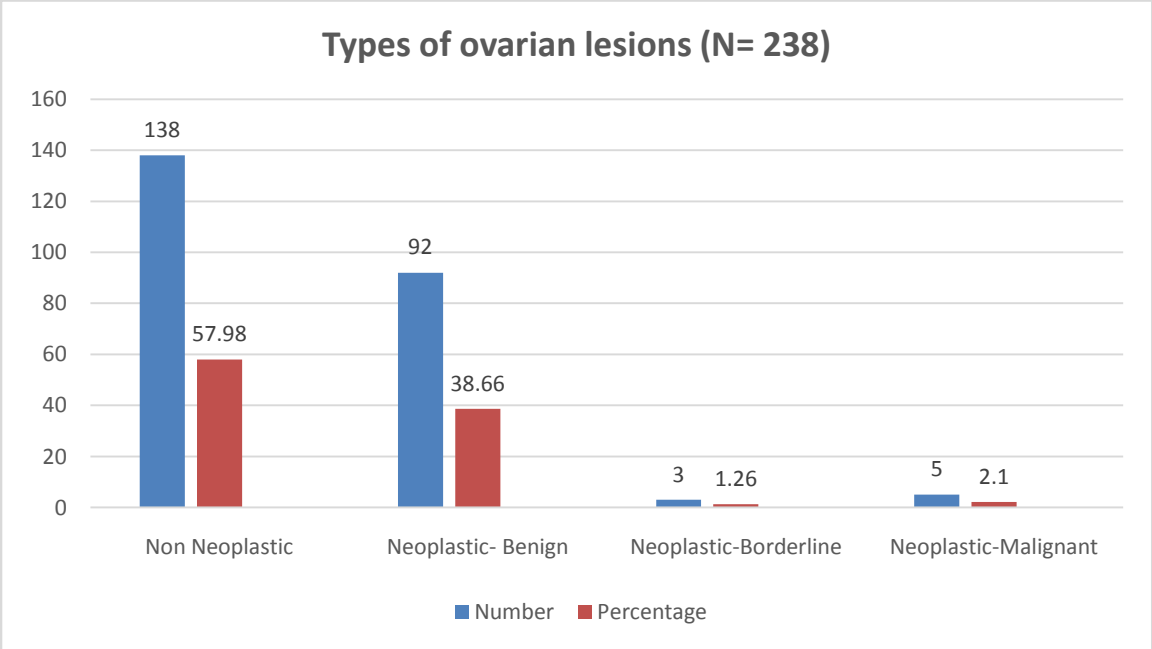
Out of total 325 specimens with TAH and TAH with uni/bilateral salpingo-oophorectomy, late secretory phase with exogenous hormone effect was diagnosed in 11 specimens. Other specimens did not reveal any significant changes in the endometrium.



N= Total number of fallopian tube lesions

Figure 5: Fallopian tube lesions

Out of total 166 cases of salpingectomy and TAH with uni/bilateral salpingo-oophorectomy, fallopian tube lesions were found in 73 cases. Majority (69.87%) were ectopic tubal pregnancy, followed by paratubal cyst (Figure 5).

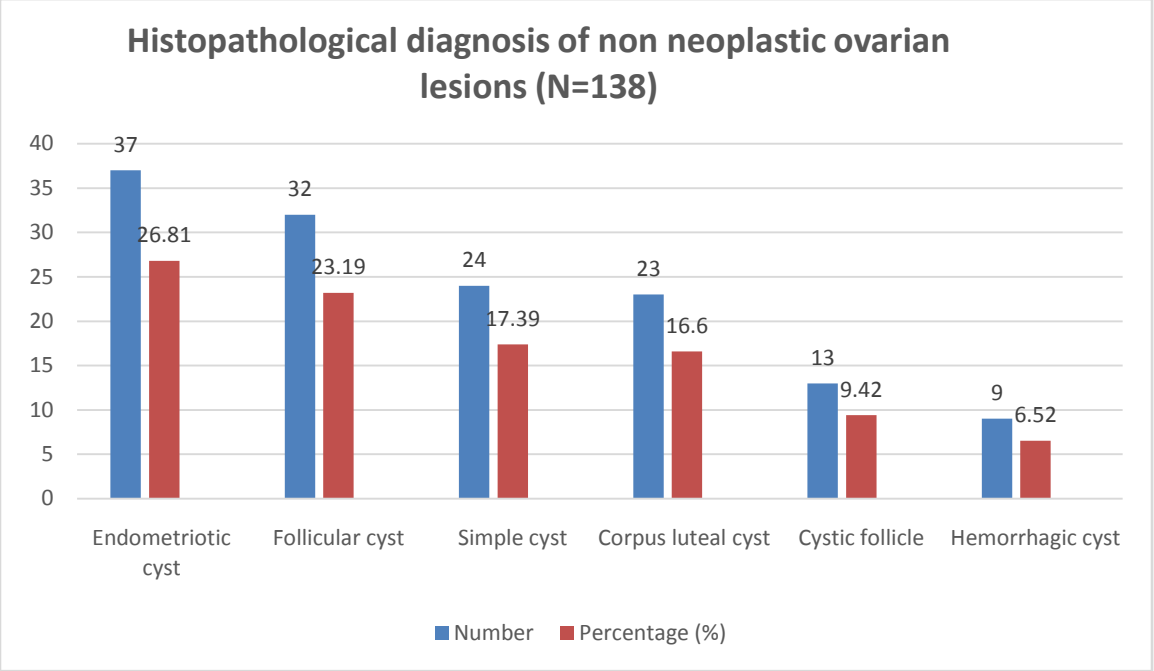


N= Total number of ovarian specimens

Figure 6: Bar diagram showing types of ovarian lesions (n=238)

Figure 6 shows out of total 271 specimens of that with uni/bilateral salpingo-oophorectomy and oophorectomy / ovarian cystectomy, in 238 specimens ovarian lesions were diagnosed. Out of which 138 (51%) were non neoplastic lesions, 92(34%) were benign ovarian tumors, 02 (0.73%) borderline tumors and 05 (1.85%) malignant tumors.

Histopathological spectrum of female genital tract lesions



N=Total number of non neoplastic ovarian lesions

Figure 7: Histopathological diagnosis of non neoplastic ovarian lesions

Figure 7 displays the non neoplastic ovarian lesions, the most common lesion found was endometriotic cyst (26.81%) followed by follicular cyst in 23.19%.

Table 5: Histopathological diagnosis of benign ovarian tumors (N=92)

Diagnosis	Number	Percentage (%)
Mature cystic teratoma	35	38.04
Serous cystadenoma	31	33.69
Mucinous cystadenoma	11	11.96
Fibroma	07	7.61
Papillary serous cystadenofibroma	05	5.43
Seromucinous cystadenoma	01	1.09
Fibrothecoma	01	1.09
Brenner tumor (benign)	01	1.09
TOTAL	**92**	**100**

N=Total number of benign ovarian tumors

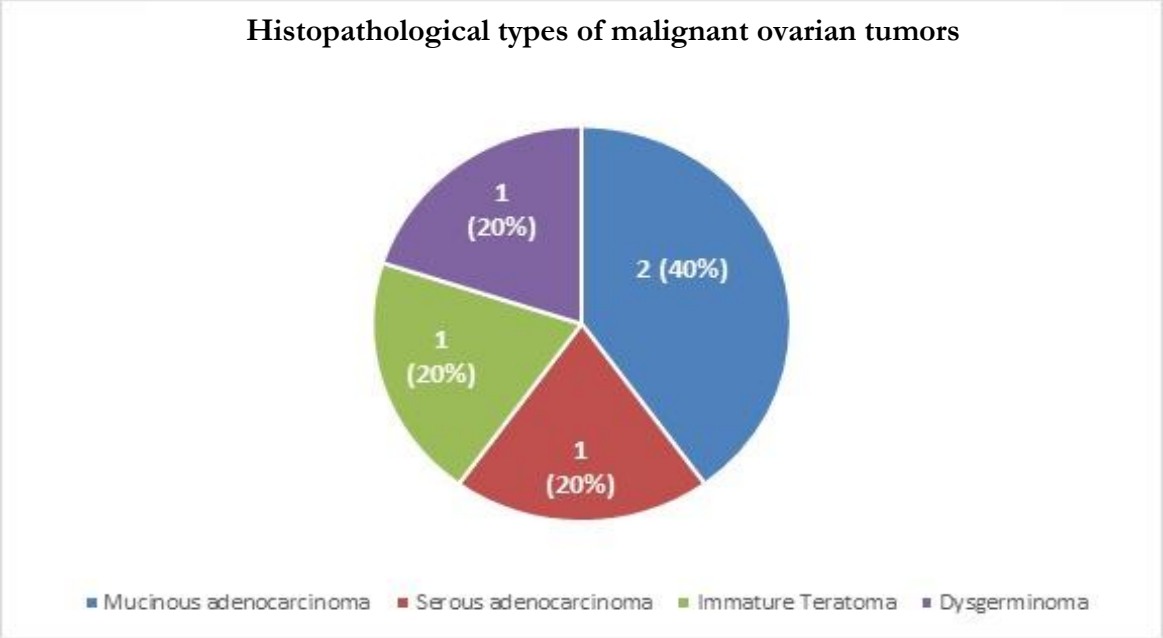
Out of 92 benign ovarian tumors 38.04 % were mature cystic teratoma followed by 33.69% of serous cystadenoma (Table 5).

Table 6: Histopathological diagnosis of borderline ovarian tumors (BOT) (N=03)

Diagnosis	Number	Percentage (%)
Mucinous borderline tumor	02	66.67
Serous borderline tumor	01	33.33
TOTAL	**03**	**100**

N= Total number of borderline ovarian tumors

Table 6 displays the types of borderline ovarian tumors found in this study.Out of three BOT, two were mucinous borderline and 1 was serous borderline tumor.



N=Total number of malignant ovarian tumors

Figure 8: Pie diagram illustrating the histopathological types of malignant ovarian tumors
Total 05 malignant ovarian tumors were observed in the study. Two were mucinous adenocarcinoma, and one each of serous carcinoma, immature teratoma and dysgerminoma (Figure 8).

Table 7: Types of lesions in labia, vagina, vulva and other FGT specimens (N=52)

Specimen	Diagnosis	Number
Labial cyst/labial tissue	Labial cyst Labial abscess Endometriotic cyst Hidradenomapapilleferum Trichelemmal cyst Epidermal inclusion cyst Fibroepithelial polyp Lipofibroma Lipoma	08 04 02 02 01 01 01 01 01
Vaginal tissue/vaginal vault tissue	Vaginal cyst Invasive SCC Vaginal endometriosis Fibroepithelial polyp Granulation tissue	06 03 01 01 01
Vulval tissue	Bartholin cyst	08
LUCS scar tissue	Endometriosis externa	01
Deposit on uterine surface	Endometriotic implant	01
Tissue from mons pubis	Benign fibrous histiocytoma	01
Perineal tissue	Hidradenemapapilleferum	01
Tissue from fourchette	Lichen sclerosus	01
Tissue from clitoris	Lichen sclerosus	01
Tissue from hymen	Fibroepithelial polyp	01
Tissue from Pouch of Douglas	Endometriosis	01
Placenta	Placental infarction No significant changes	01 02

N=Total number of lesions in labia, vagina, vulva and other parts of FGT;SCC=Squamous cell carcinoma

Table 7 displays different types of histopathological lesions in vagina, vulva, labia and other parts of FGT. There were total 21 specimens as labial tissue/labial cysts, majority was diagnosed as bartholin cyst, followed by labial abscess, endometriotic cyst, hidradenoma papilliferum, one each as trichelemmal cyst, epidermal inclusion cyst, lipoma and lipofibroma.

DISCUSSION

This retrospective study aimed to characterize different histopathological types of FGT lesions in a tertiary care hospital in Dhaka, Bangladesh, over a three year period.

Total 989 gynecological surgical specimens were analyzed in this study. Out of these 989 specimens, 325 (32.88%) were hysterectomies (both simple hysterectomy and total hysterectomy with uni/bilateral salphingo oophorectomy) this is similar with the findings from other studies[5,7,8] .

In our study the patients' age ranged from 08 to 80 years, and about 33.78% of the patients were in the age group of 31 to 40 years which is consistent with the findings from other studies[8-10]**.** This trend may reflect the higher frequency of medical consultations among women of reproductive age group.

In the present study, the non neoplastic lesions had predominance (60.06%) over the neoplastic. In the neoplastic group, majority (89.62%) were benign lesions of the FGT. Both the findings are in accordance with other studies[10].

Among the various neoplasms, leiomyoma of the uterus is the commonest benign tumor of the female reproductive system (Figure 9 A). Leiomyoma, commonly known as fibroid, accounted for approximately 65.05% of specimens, echoing findings with other studies[5,8,10-12]. Adenomyosis appeared in 187 (47.70%) of uterine specimens, is also consistent with other reports[12,13].

Proliferative phase was diagnosed in 20.89% of endometrial curettage specimens. Retained product of conception (Figure 9C) was found in 16.42%, and endometrial polyp (Figure 9B) in13.44 **%** of cases. Similar findings were reported in other studies also[5,10]. In our study we also observed 12 specimens (5.97%) were diagnosed as hydatidiform mole (Figure 9D)

Histopathological diagnosis of uterine cervical lesions revealed non specific chronic cervicitis as the most common (69.46**%**) finding in this study correlating with previous research works[5,7,10,12,13]. Non specific chronic cervicitis is often seen in many women of all age groups, though it typically lacks any clinical significance[2].

Features compatible with prolapsed uterus was found in 12.67% of specimens. Endocervical polyps constituted about 8.14% of cervical biopsy samples. While generally benign, these polyps may cause irregular vaginal bleeding and mimic more ominous conditions clinically[2]**.**

In cervical biopsy 09 specimens were diagnosed as LSIL and 07 as HSIL (Figure 10 A). Routine screening program with follow up cervical biopsies can help in early diagnosis and management of the premalignant conditions.

Total 31 malignant tumors were observed in this present study. Invasive SCC was the commonest histologic type of malignant tumors. Twenty were diagnosed in the uterine cervix (Figure 10B), 3 were in the vaginal vault and 1 in endometrial curettage. This was an extension from cervical carcinoma. One each of adenocarcinoma and carcinoma

in situ (CIS) were found in the cervical samples. All these findings were quite in accordance with other studies[5,10,14].

Ovarian lesions included both non neoplastic and neoplastic types. Non neoplastic lesions were majority, representing 57.98 % of all ovarian specimens, aligning with findings in similar studies [3,5,10,11,15,16].

Among 138 non neoplastic ovarian lesions the endometriotic or chocolate cyst was the most common finding (26.81%). Endometriosis is quite common in women of reproductive age. This was followed by follicular cysts and simple cysts which are quite frequent in hysterectomy with oophorectomy specimens. These findings are similar to other studies[5,17].

Among the neoplastic ovarian lesions, benign tumors were more than malignant tumors. Mature cystic teratoma (Figure 11 A) was diagnosed in 35 and serous cystadenoma (Figure 11 B) in 31 out of a total of 238 ovarian specimens. Mucinous cystadenoma (Figure 11 C) was observed in 11.96% of benign ovarian tumors. The current study observed 3 borderline ovarian tumor (BOTs) which are also known as intermediate tumor with "low malignant potential". These patients need to continue long-term follow-up. Histologically these tumors have complex papillary structures, multilayering of the epithelial lining, with only mild nuclear atypia and some increase in the mitotic activity. But they do not exhibit any stromal invasion (Figure 11 D). BOTs generally have good prognosis and overall survival. However, these tumors can recur even after 15 to 20 years[18].

In our study, total 5 malignant ovarian tumors were diagnosed (Figure 11E, F). Ovarian tumors are challenging for the gynecologists, as they usually present at an advanced stage of the disease when they have already spread beyond the ovary[2]. Histopathology remains the single most important modality for diagnosis of ovarian lesions.

Fallopian tube specimens in a histopathology laboratory may be examined either as a salpingectomy specimen or as a part of hysterectomy and/or oophorectomy. In the current study, the majority of the fallopian tube lesions were ectopic tubal pregnancy (Figure 9E), followed by paratubal cysts. No case of salpingitis was found in this study. These findings are dissimilar with a study done by Neha et.al[5]. Salpingitis is an incidental finding in histopathological examination of hysterectomy specimens [20]. In our study salpingectomy was done in 61 cases due fallopian tube pathology and 51 specimens revealed to be ectopic tubal pregnancy.

Hidradenoma papilliferum is a rare benign tumor. Skin is predominantly involved and it affects women during their reproductive years. It is most commonly found in the vulva, perianal area, and perineum[21]. In the present study we observed total 3 hidradenoma papilleferum, of which 2 were in labia and 1 in the perineal tissue.

CONCLUSION

The present study provides valuable insight into the histological patterns of female genital tract lesions at our institution, with the ultimate diagnosis being determined only by histopathology. We observed that the majority of the FGT lesions were non neoplastic while majority of neoplastic lesions were benign in nature. Leiomyoma was the most common benign lesion. A yearly audit should be conducted in every institute to collect data, analyze the

patterns of indications, and assess the types and patterns of histopathological lesions and diseases.

CONFLICT OF INTEREST

There is no conflict of interest.

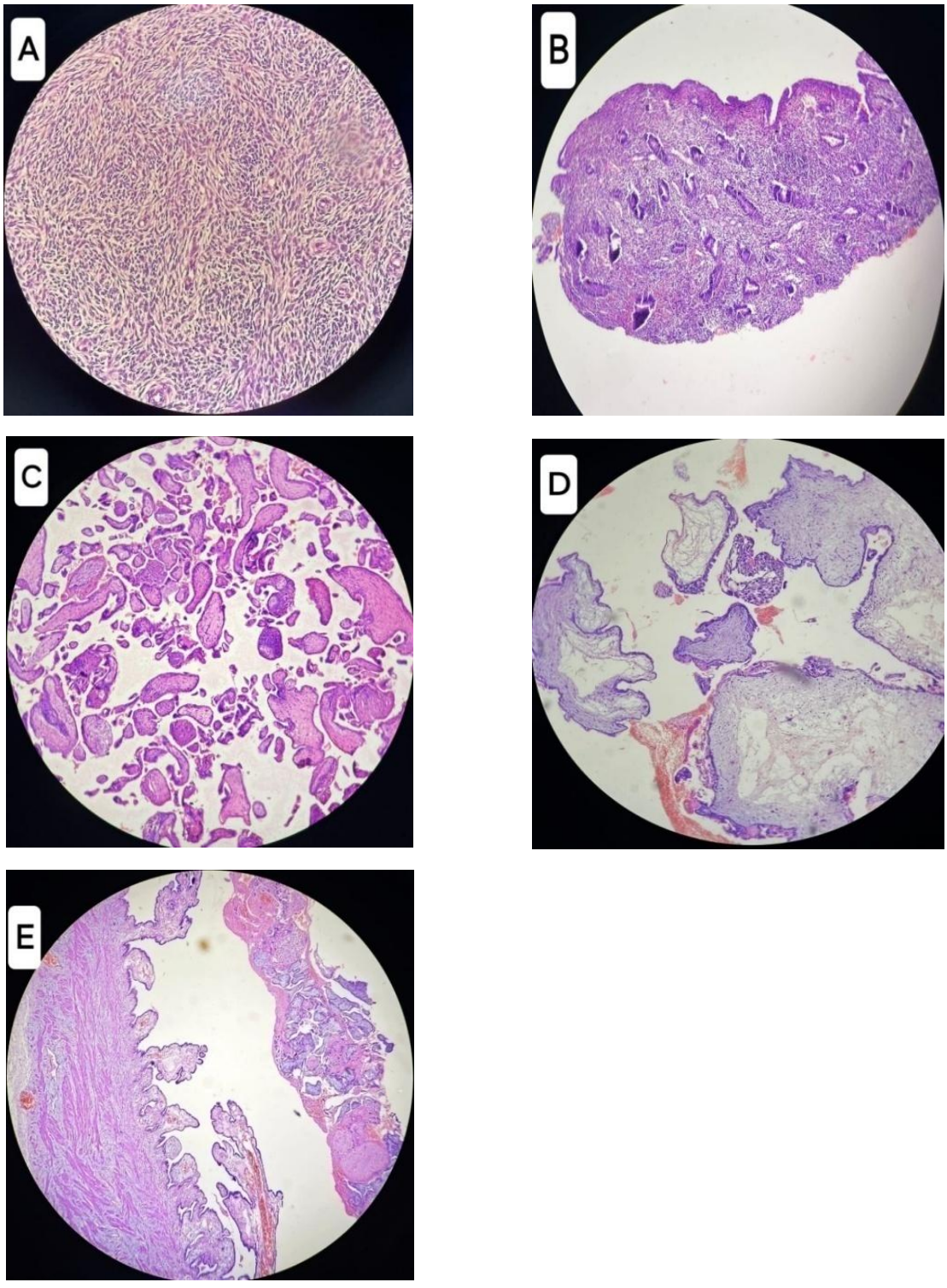


Figure 9 (A) Leiomyoma H&E X100 (B) Endometrial polyp H&E X40 (C) Product of conception H&E X100 (D) Hydatidiform mole H&E X100 (E) Ectopic tubal pregnancy H&E X100

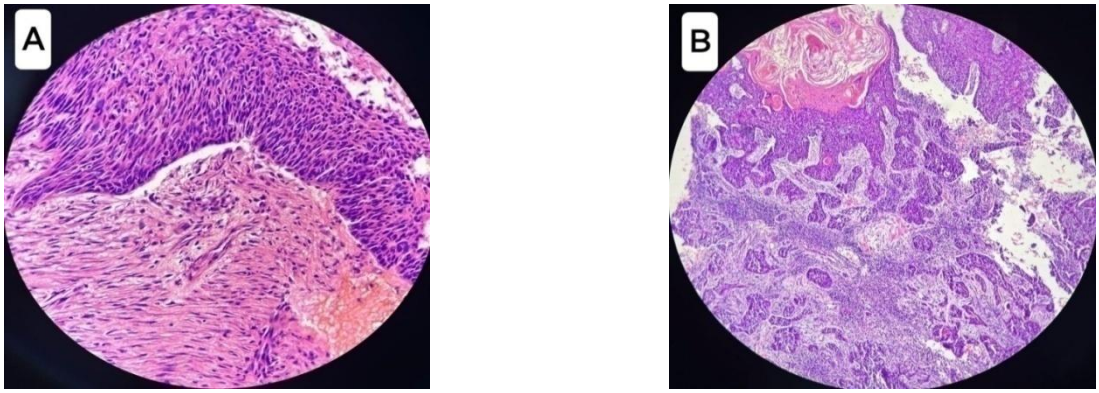


Figure 10 (A) HSIL of cervix H&E X100 (B) Invasive SCC of cervix H&E X100

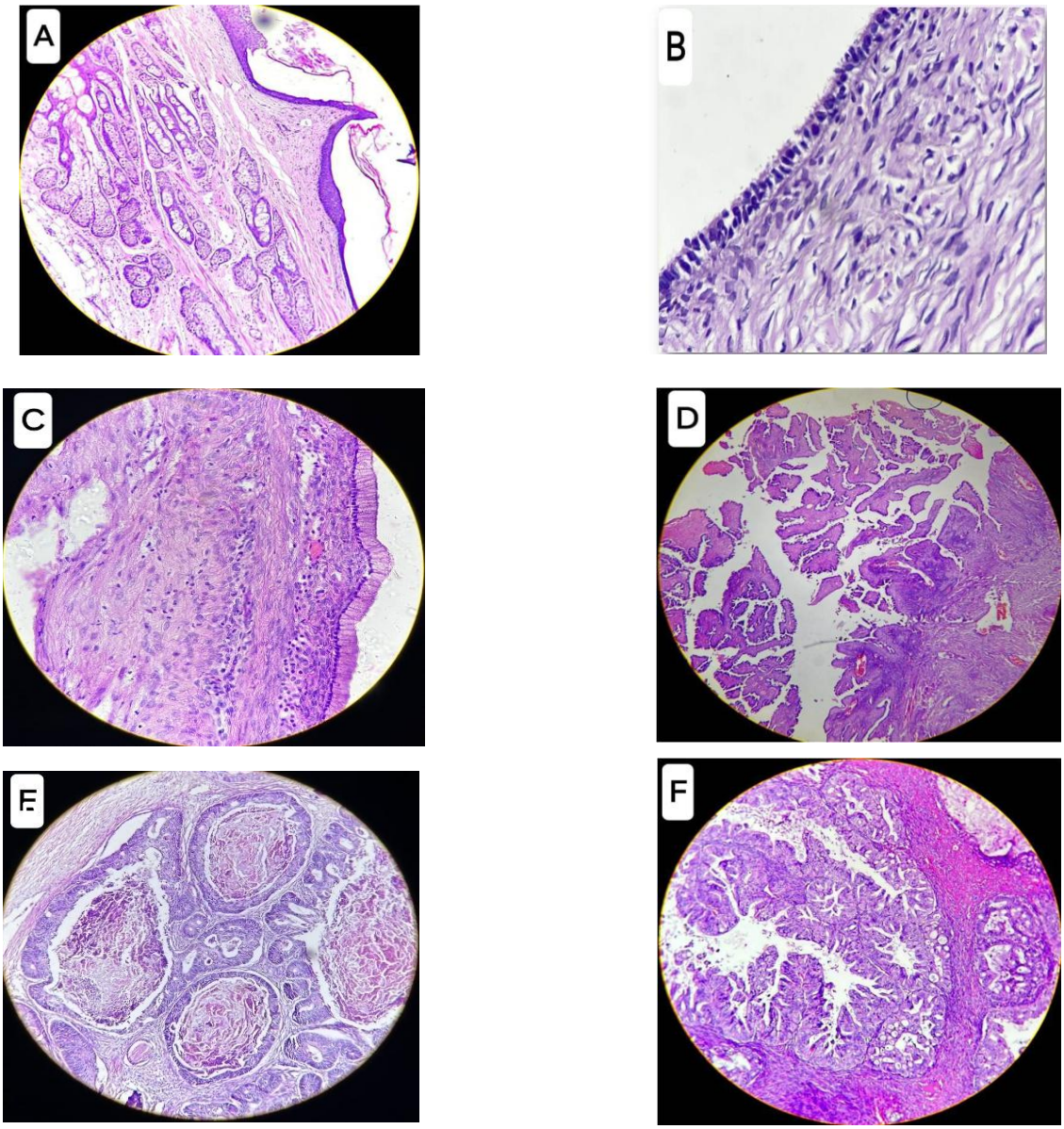


Figure 11 (A) Mature cystic teratoma H&E X100 (B) Serous cystadenoma H&E X100 (C) Mucinous cystadenoma H&E X100 (D) Serous borderline tumor H&E X100 (E) High grade serous cystadenocarcinoma H&E X100 (F) Mucinous adenocarcinoma H&E X100

REFERENCES

1. Tubbs RS. Female Reproductive System. In: Standring S editor. Grays Anatomy, The anatomical basis of Clinical Practice. Elsevier. 42nd ed.2020.1307-1324 p

2. Loran HE, Edyta CP. The Female Genital Tract. Kumar V, Abbas A, Aster J, editors. Robbins and Cotran Pathologic Basis of Disease. 10 th ed. Philadelphia: Elsevier; 2015. 986 p

3. Das B, Bhattacharjee S, Gogoi J. Histopathological analysis of various lesions of the female genital tract in the reproductive and post reproductive age group in a tertiary care centre. Int J Contemp Med Res.2021;8(1):A1-A7.

4. Ferlay J, Colombet M, Soerjomataram I, Parkin DM, Piñeros M, Znaor A, Bray F. Cancer statistics for the year 2020: An overview. Int J Cancer. 2021. doi: 10.1002/ijc.33588.

5. Goel NM, Patil SN, Ambike AS, Sugra SNB.A study to determine the incidence of female genital tract lesions on histopathology in a rural tertiary care centre. MedPulse Int J Path.2020; 13(3): 160-169. Available from: https://www.medpulse.in/ Pathology/[(Accessed on 8th February, 2025)].

6. Damjanov I, Vranic S, SkenderiF Does everything a surgeon takes out have to be seen by a pathologist? A review of the current pathology practice. Virchows Arch.2016; 468(1):69-74. doi:10.1007/s00428-015-1801-0

7. Patil AS, Jadhav RM, Narkhede P.Histopathological study of lesions of female genital tract in rural Maharashtra. IP J Diagnostic PathOncol. 2018; 3(3):160-167 .doi: 10.18231/2581-3706.2018.0034

8. RawatN, TignathA, Jain A, Soni S, Agrawal M. Histopathological spectrum of uterine lesions in hysterectomyspecimens. Int JHealth Sciences. 2022; 6(S6), 11176–11180. doi:10.53730/ijhs.v6nS6.13085

9. Bhugra P. Hysterectomy: retrospective analysis of 476 cases.Int J Reprod Contracept Obstet Gynecol. 2020; 9(5):1930-3

10. Singh S, Rajesh GC, Singh G. Histopathological Spectrum of Lesions of the Female Genital Tract: A Two Year Retrospective Study in a Tertiary Hospital of Pune, Maharashtra. Int J Sci Res.2020; (9) : 1-3 .doi : 10.36106/ijsr

11. Singh M, Jha KK, Poudyal P, Kafle SU. Histopathological spectrum of neoplastic lesions of female reproductive system-a two-year experience in Eastern Nepal. Int J Res Med Sci.2018; 6(2):426-430.doi: 10.18203/2320-6012.ijrms20180280

12. Nasim O, Hayat MK, Hussain Z, Fahad MS, Jamal A, Khan MAA. Histopathological Account of Obstetrical and Gynecological Specimens: Retrospective Study at a Tertiary Care Center of Peshawar. Cureus. 2021; 13(5):e14950. doi: 10.7759/cureus.14950.

13. Talukder SI, Haque MA, Huq MH, Alam MO, Roushan A, Noor Z, et al. Histopathological analysis of hysterectomy specimens. Mymensingh Med J. 2007;16(1):81-4. doi: 10.3329/mmj.v16i1.254.

14. Hossain N, Banu F, Anwar R, Afroz M, Ara N. Pattern of Gynecological Malignancies in Bangladesh: Five Years' Experience at National Institute of Cancer Research & Hospital (NICRH). Cancer J Bangladesh.2021;(2):15-18

15. Maurya G, Singh SK, PandeyP, Chaturvedi V. pattern of neoplastic and non neoplasic lesions of the ovary: a five year retrospective study in a tertiary care centre of rural India. Int J Res Med Sci 2018; 6: 2418-22

16. Patil AS, Jadhav RM, Narkhede P. Histopathological study of lesions of female genital tract in rural Maharashtra. IP J Diagn Pathol Oncol. 2018; 4(3):160-167.doi:10.18231/2581-3706.2018.0034

17. KhanamS, Rashid M, Parvin Z, Jahan S A, Md Asaduzzaman M, Saha SC, et al. Histological Variants of Ovarian Tumour in Bangladeshi Women. Ibrahim Cardiac Med J.2017;*5*(1-2), 40–44. doi:10.3329/icmj.v5i1-2.53698

18. Kipp B, Vidal A, Lenick D, Christmann-Schmid C. Management of Borderline ovarian tumors (BOT): results of a retrospective, single center study in Switzerland. J Ovarian Res. 2023 ; 16(1):20. doi: 10.1186/s13048-023-01107-3.

19. Sedhain M, Pathak P, Goyal B, Subedi P. Histopathological Spectrum of Neoplastic Lesions of Female Reproductive System at a Tertiary Care Hospital in Bharatpur, Chitwan. J Coll Med Sci-Nepal. 2023;19(1): 15–25.doi:10.3126/jcmsn.v19i1.52017

20. Kujur P, KosamS, Gupta A .Histopathological Study of Spectrum of Lesions Seen in Surgically Resected Specimens of Fallopian Tube. International Journal of Scientific Study. 2016; 4 (9): 39-43.

21. Wang L, Chen G, Jiang J,LiuG,Tuo YL, Li X et.al. Vulvar Hidradenoma Papilliferum. Int J Gen Med. 2024; 17:663–667. doi: 10.2147/ IJGM.S449102