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Original Research

Clinicopathological Analysis of lesions of Uterus and Cervix

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***ABSTRACT*:**
Background: Many clinicians encounter cervical lesions that may or may not be associated with cytologic abnormalities. Such abnormalities as ectropion, Nabothian cysts, and small cervical polyps are quite benign and need not generate concern for patient or clinician, whereas others, including those associated with a history of exposure to diethylstilbestrol, cervical inflammation, abnormal cervical cytology, and postcoital bleeding, should prompt additional evaluation.**Aim of the study:** To clinicopathologically analyze lesions of uterus and cervix. **Materials and methods:** The study was conducted in the Department of Obstetrics and Gynecology of the medical institute. For the study, we selected women who presented to department with complaints of vaginal discharge, inter menstrual bleeding, post coital bleeding and post-menopausal bleeding. A total of 60 women were detected with uterus and cervix lesions. These women were subjected to a polypectomy and the specimen was sent for histopathological examination to the pathology department in 10% formalin. They were studied grossly and multiple sections taken. The specimens were processed in automated tissue processor. **Results:** We observed that the most common lesion seen in patients was uterine polyps (diagnosed in 43.4% patients). Cervical endometriosis was second most common lesion (20% patients).**Conclusion**: Within the limitations of the present study, it can be concluded that the most common lesion in the study population was uterine polyp which was diagnosed in 43.4% of patients. Other lesions such as cervical polyps and cervical endometriosis were also seen in 15% and 20% patients respectively.
Keywords: Uterine lesions, uterine polyps, cervical polyps.

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INTRODUCTION:

Many clinicians encounter cervical lesions that may or may not be associated with cytologic abnormalities. [1] Such abnormalities as ectropion, Nabothian cysts, and small cervical polyps are quite benign and need not generate concern for patient or clinician, whereas others, including those associated with a history of exposure to diethylstilbestrol, cervical inflammation, abnormal cervical cytology, and postcoital bleeding, should prompt additional evaluation. [2,3] Further, in some patients, the cervix may be difficult to visualize. Cervical intraepithelial lesions or invasive tumors are caused by infection with human papilloma virus (HPV). More than 100 different strains of HPV are known today, and those considered of high risk are involved in the etiology of cancer. [4,5] About 99.7% of HPV infections are sexually transmitted and are rarely transmitted from mother to the neonate through an ascending route during delivery. Every 2 minutes, a woman dies because of cervical cancer worldwide, which is the leading cause of deaths in women; 52,000 new cervical cancer cases are seen annually in the European Union, and 27,000 people die annually due to this disease. [6] Hence, the present study was planned to clinicopathologically analyze lesions of uterus and cervix.

MATERIALS AND METHODS:

The study was conducted in the Department of Obstetrics and Gynecology and General Pathology of the medical institute. The ethical clearance for the study was approved from the ethical committee of the hospital. For the study,

we selected women who presented to department with complaints of vaginal discharge, inter menstrual bleeding, post coital bleeding and post-menopausal bleeding. Patients had thorough physical examination by a trained gynecologist. Patient presenting with uterus and cervix lesions were included in the study. A total of 60 women were detected with uterus and cervix lesions. An informed written consent was obtained from the participants after explaining them the protocol of the study. These women were subjected to a polypectomy and the specimen was sent for histopathological examination to the pathology department in 10% formalin. They were studied grossly and multiple sections taken. The specimens were processed in automated tissue processor. Four to six micron thick paraffin embedded sections were taken and stained by haematoxylin and eosin. The slides were examined under microscope by the pathologist and the various histopathological patterns identified and classified. Data was collected and shifted to computer for analysis.

The statistical analysis of the data was done using SPSS version 11.0 for windows. Chi-square and Student's t-test were used for checking the significance of the data. A p-value of 0.05 and lesser was defined to be statistical significant.

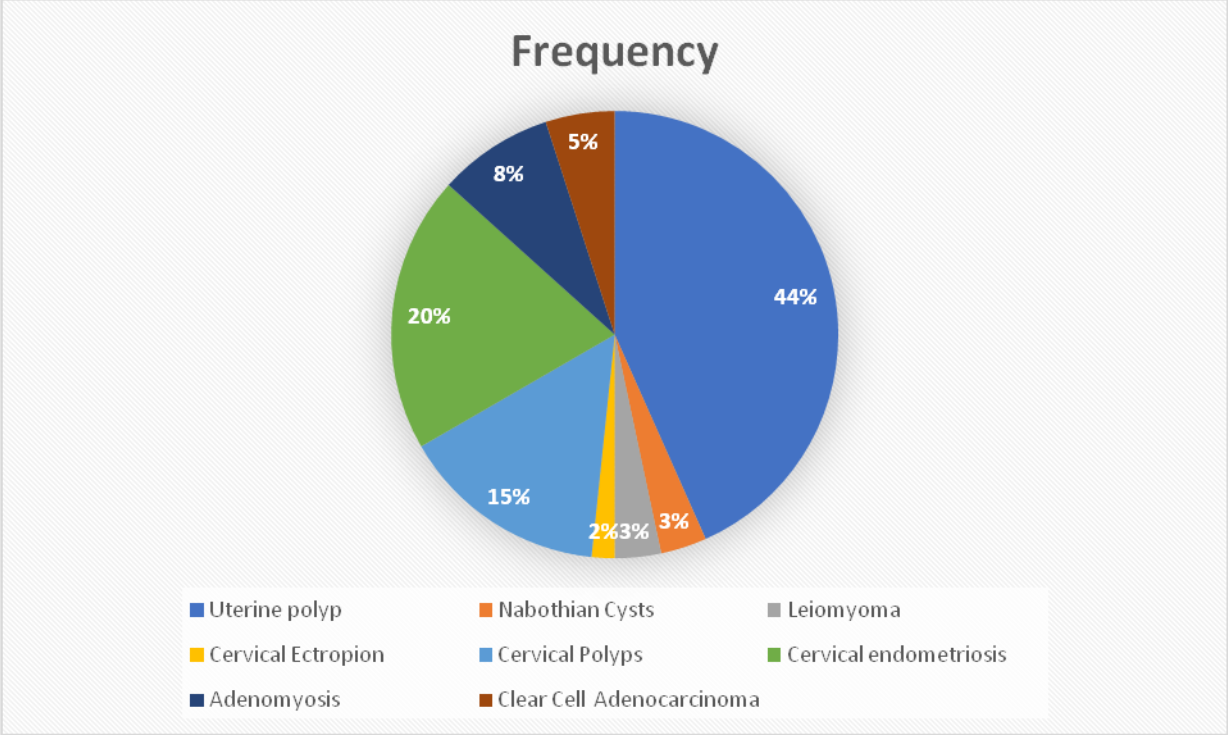
RESULTS:

Table 1 shows histopathology of various lesions in study group. We observed that the most common lesion seen in patients was uterine polyps (diagnosed in 43.4% patients). Cervical endometriosis was second most common lesion (20% patients). Cervical polyps were seen in 15 % patients. Other lesions such as Nabothian cysts, leiomyoma, cervical ectropion, clear cell adenocarcinoma were also seen. [Fig 1]

Table 1: Histopathology of various lesions in study group

Histopathology of lesions	Frequency	Percentage (%)
Uterine polyp	26	43.4
Nabothian Cysts	2	3.3
Leiomyoma	2	3.3
Cervical Ectropion	1	1.6
Cervical Polyps	9	15
Cervical endometriosis	12	20
Adenomyosis	5	8.4
Clear Cell Adenocarcinoma	3	5

Figure 1: Pie chart showing frequency of various lesions



DISCUSSION:

In the present study, we observed that the most common lesion in the study population was uterine polyp which was diagnosed in 43.4% of patients. Other lesions such as cervical polyps and cervical endometriosis were also seen in 15% and 20% patients respectively. The results were compared with previous studies and was found to be consistent. Dongol S et al investigated SCCC using a retrospective clinicopathological approach. Four cases of large (≥4 cm) SCCCs were presented. The patients were diagnosed with SCCC through a sequential hierarchy of physical examinations, laboratory reports, radiological reports, immunohistochemical and pathological tests. The diagnosis for each case was made at various stages (Ib1, Ib2, IIa2 and IIb, according to the FIGO staging system, 2000) and each of the patients received different multimodality therapeutic regimens. All the patients underwent radical hysterectomy and pelvic lymphadenectomy, followed by adjuvant chemotherapy. Neoadjuvant chemotherapy was administered prior to surgery in two of the patients. The clinical and pathological analyses were assessed using a retrospective measure, maintaining timely follow-ups. They concluded that SCCC is a rare but serious gynecological malignancy. This condition has a poor prognosis due to its high aggressiveness, high rate of metastases and mortality. Lee MH et al evaluated the clinicopathological features of minimal deviation adenocarcinoma (MDA) and to analyze its prognostic factors. They retrospectively analyzed the medical records of 17 patients who were diagnosed with MDA at a single institution between January 2005 and December 2015. The median age of the patients was 47.7 years (33–75 years). MDA was diagnosed in 7 patients (41.2%) before performing definitive surgery. Stage IB disease was diagnosed in 12 patients (70.6%) and advanced stage disease (stage II: 3, stage III: 2) in 5. MDA was incidentally diagnosed following hysterectomy for benign conditions in 6 patients. Adjuvant therapy was administered to 13 patients (76.5%). During median follow-up over 33.6 months (7–99 months), 11 patients (64.7%) showed no evidence of disease, 6 (35.3%) showed persistent or recurrent disease and 5 died of the disease. Peutz-Jeghers syndrome was not suspected in any patient, and no mutation was detected in the 3 patients who underwent genetic testing. Univariate analysis showed that advanced stage disease and lymphovascular space invasion demonstrated a statistically significant association with poor overall survival (OS) rates. Advanced stage disease continued to show a significant association with poor OS rates even after multivariate analysis. They concluded that early diagnosis is important to manage MDA. Clinicians should consider MDA among the differential diagnoses in patients with a suspicious clinical presentation even with negative cervical screening tests.[7,8]

Jones MA et al described 14 patients with benign, hyperplastic mesonephric remnant lesions. The patients ranged in age from 31 to 81 years (mean, 47). Four were postmenopausal. The lesions were incidental findings in all but 2 of the patients and frequently had been submitted for consultative pathologic opinion. Two patients did, however, present with symptoms (vaginal bleeding) likely attributable to their lesions and 1 of them had a cervical abnormality on clinical examination. Microscopically, the lesions were composed of lobular or diffuse proliferations of small, round mesonephric tubules which were frequently deep within the cervical wall and often extended to the surface of the cervix. Five of the patients had a referring diagnosis of probable or definite cervical adenocarcinoma due to the infiltrative appearance of the lesions. No mesonephric carcinomas were encountered. They concluded that hyperplastic lesions of mesonephric remnants are usually benign, incidental findings but may on occasion be associated with clinical symptomatology and are a potential source of diagnostic confusion for the pathologist. Nucci MR et al reported 13 cases of a previously undescribed pseudoneoplastic lesion of the uterine cervix, which we have designated "lobular endocervical glandular hyperplasia, not otherwise specified." The patients' ages ranged from 37 to 71 years (mean, 45 years; median, 49 years). Three (27%) patients had a history of hormone use. Seven lesions were incidental findings in hysterectomy specimens. In the six other cases, the patient came to clinical attention because of a mucoid cervical discharge (two cases), increased vaginal discharge (two cases), abdominal discomfort (one case), or a 3.5-cm cervical mass found when being examined because of ovarian carcinoma (one case); hysterectomy was performed in each of these six cases. Microscopic examination showed a distinctly lobular proliferation of small to moderately sized rounded glands often centered around a larger central gland. The lobular proliferation was well to poorly demarcated and usually confined to the inner half of the cervical wall. Glands within the lobules were usually separated from each other by unaltered or hypercellular cervical stroma and were lined by columnar mucinous cells similar to the normal endocervix. Occasional reactive atypia of the endocervical cells and mitoses were seen, but no significant cytologic atypia was identified. Neither of the two cases stained showed cytoplasmic immunoreactivity for carcinoembryonic antigen. Follow-up of seven patients showed no evidence of recurrence of the cervical lesion, with an average length of follow-up of 3.4 years; three patients were lost to follow-up and three cases are recent. The principal consideration in the differential diagnosis was adenoma malignum (minimal deviation adenocarcinoma). The features most helpful in this distinction, in addition to the orderly lobular arrangement of the glands, were a lack of the following: irregular stromal infiltration, a desmoplastic stromal response, and focal malignant cytologic features. Lobular endocervical gland hyperplasia should be added to the list of previously

described pseudoneoplastic glandular lesions of the cervix and, like them, not misinterpreted as neoplastic.[9,10]

CONCLUSION:

Within the limitations of the present study, it can be concluded that the most common lesion in the study population was uterine polyp which was diagnosed in 43.4% of patients. Other lesions such as cervical polyps and cervical endometriosis were also seen in 15% and 20% patients respectively.

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