

Histopathological Study of Uterine Cervix

Dr Indira S Bangera

Associate Professor, Department of Pathology, Father Muller Medical College, Mangalore, India

Abstract: *The accessibility of the cervix to direct examination makes it the object of intensive and large scale study. Complete and accurate assessment of cervical lesion relies on three methods of investigation-colposcopic examination of cervix, cervical cytology and histology of biopsy and cervical sections from hysterectomy specimens. Histopathological studies of the cervix along with clinical correlation is very important for definitive diagnosis in diseases of the cervix. Malignancy is common in cervix and is due to infections with certain strains of Human Papilloma Virus (HPV). Cervical cancer is the fourth most common cancer among women in the world. Of the 5,28,000 new cases detected globally in 2012, developing countries accounted to about 85% of its global burden.¹ Various inflammatory as well as infectious lesions are common in uterine cervix due to vulnerability to sexual trauma and being an easy access to various infections. Cervical cancer is one of the most frequently seen cancer in women in India. This study is to find out the most common types of the cervical lesions which are dealt in the histo – pathology lab so as to understand the distribution of this disease among the society.*

Keywords: Histopathology, Uterus, Cervix, Inflammation, benign

1. Introduction

Malignancy is common in cervix and is due to infections with certain strains of Human Papilloma Virus (HPV). Cervical cancer is the fourth most common cancer among women in the world. Of the 5,28,000 new cases detected globally in 2012, developing countries accounted to about 85% of its global burden.¹ Various inflammatory as well as infectious lesions are common in uterine cervix due to vulnerability to sexual trauma and being an easy access to various infections. Cervical cancer is one of the most frequently seen cancer in women in India.

Cervical intraepithelial neoplasia (CIN), also known as cervical dysplasia, is the potentially premalignant transformation and abnormal growth (dysplasia) of squamous cells on the surface of the cervix.² Cervical Intraepithelial Neoplasia most commonly occurs on the cervix at the squamo-columnar junction, but can also occur in vaginal walls and vulvar epithelium. The New Bethesda System reports all gynecologic abnormalities termed SIL Squamous intraepithelial lesions, arising from all areas of femal genital tract and anal canal of both men and women. Like other intraepithelial neoplasias, CIN or [SIL] is not cancer, and it is usually curable.³ Most cases of CIN remain stable, or are eliminated by the host's immune system without intervention. However a small percentage of cases progress to become cervical cancer, usually cervical squamous cell carcinoma (SCC), if left untreated.⁴

The cervix is the most inferior portion of the uterus protruding into the upper vagina. Uterine cervix acts as a "gateway" for various infections, which affects cervix, uterus and upper genital tract, thus working under various pathological conditions leading to cause various lesions of cervix as well as acting as a sentinel for upper genital tract infections and a target for viruses and other carcinogens, which may lead to invasive carcinomas. Extensive and well-organised screening programmes in some countries have brought about a marked decline in both the mortality from cervical carcinoma and the incidence of the carcinoma of the cervix, but due to more limited improvements observed in developing countries where persistently high rates tend to

continue. The accessibility of the cervix to direct examination makes it the object of intensive and large scale study. Complete and accurate assessment of cervical lesion relies on three methods of investigation-colposcopic examination of cervix, cervical cytology and histology of biopsy and cervical sections from hysterectomy specimens. Histopathological studies of the cervix along with clinical correlation is very important for definitive diagnosis in diseases of the cervix.

Majority of the specimen were found to be inflammatory and also pre malignant lesions. This study is to find out the most common types of the cervical lesions which are dealt in the histo – pathology lab so as to understand the distribution of this disease among the society.

2. Aims and Objectives

To study the uterine cervix histopathology.

3. Materials and Methods

This study was conducted in Father Muller Medical College.

This study was conducted from October 2010 to May 2014.

Ninety specimens were studied in the Department of Pathology. The specimen included punch biopsies, hysterectomy specimen, cervical biopsies and LEEP specimens were procured.

The tissue was processed after taking necessary sections specific stains were used and thus the specimens were studied.

4. Results

Table 1: Mean Age of the Population:

Number of Specimen	Mean age of the population	Range of Age
90	42.26 years	21 years to 67 years

Table 2: Frequency of Different Lesions Encountered

Lesions	N=90
Inflammatory	51
Cervical Glandular Lesions	03
Benign Lesions	11
Precursor Lesions	17
Malignant Lesions	08

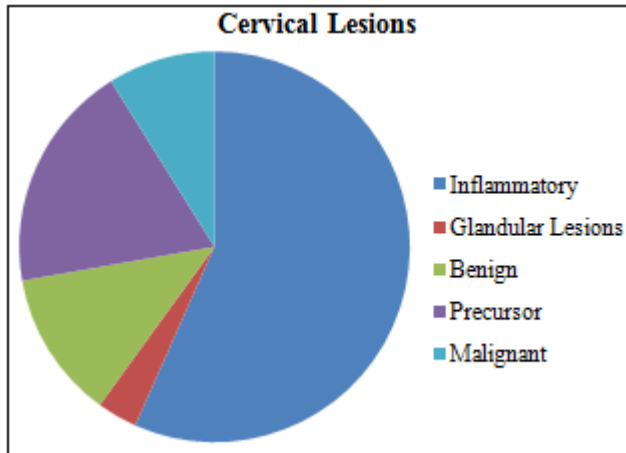


Image 1: Frequency of Different Lesions Encountered

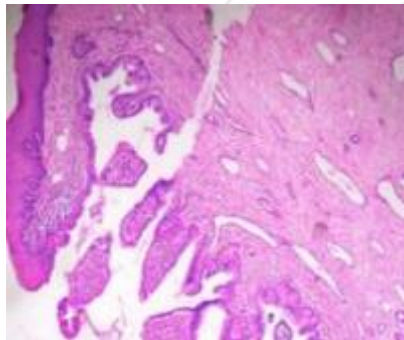


Image 1: Squamous Metaplasia

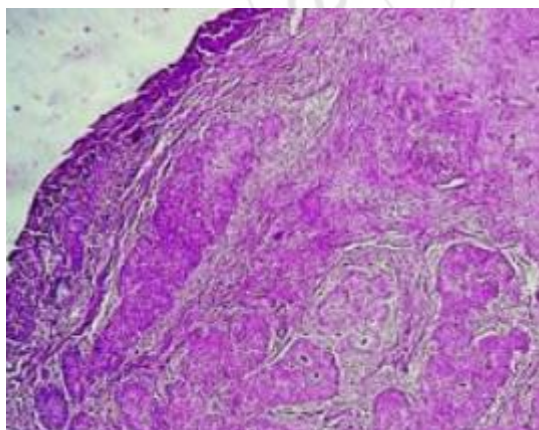


Image 2: Microinvasive squamous cell carcinoma

5. Discussion

Cervix constitute a small but significant part of the female genital tract. Specimens received in the histopathology departments in majority are of the cervix. Morbidity and mortality due to uterine cervical lesions is quite significant in females all around the world. This study was undertaken to highlight the importance and current trends of these

cervical lesions on histopathological spectrum. Histopathologically, accurate and complete diagnosis of the disease process is of prime importance to understand the prognosis and thereby proper management.

Treatment for CIN 1, which is mild dysplasia, is not recommended if it lasts fewer than 2 years.⁵ Usually when a biopsy detects CIN 1 the woman has an HPV infection which may clear on its own within 12 months, and thus it is instead followed for later testing rather than treated. Surgical treatment of CIN lesions is associated with an increased risk of infertility or subfertility, with an odds ratio of approximately 2 according to a case-control study.⁶ Postmenopausal bleeding, postcoital bleeding or intermenstrual bleeding and foul smelling discharge per vaginal discharge were the most common presenting symptoms in patients having malignancy. Uterine cervix is the most easily accessible and vulnerable part of the female genital tract. The problem is not with the disease but since the disease mostly affects the young population remains the un-digestible truth. So this paper helps us to understand the frequency in which the disease presents and thus also help the doctors to identify the disease and make an effort to reduce the burden to the patients and to the society.

6. Conclusion

Specimens received in the histopathology departments in majority are of the cervix. The patients who are diagnosed are young in the age group and this is the tragedy of this disease. So a sincere effort is the need of the hour to diagnose the disease as early as possible when it is in a benign state or rather inflammatory phase and a sincere approach in treating the same.

References

- [1] Ferlay J, Soerjomataram I, Ervik M, et al. GLOBOCAN 2012 v1.0 Cancer incidence and mortality worldwide: IARC cancer base no.11 (Internet). Lyon, France: International Agency for Research on Cancer 2013. <http://globocan.iarc.fr>
- [2] Kumar, Vinay; Abbas, Abul K.; Fausto, Nelson; Mitchell, Richard N. (2007). Robbins Basic Pathology (8th ed.). Saunders Elsevier. pp. 718–721. ISBN 978-1-4160-2973-1.
- [3] Agorastos T, Miliaras D, Lambropoulos A, Chrisafi S, Kotsis A, Manthos A, Bontis J (2005). "Detection and typing of human papillomavirus DNA in uterine cervixes with coexistent grade I and grade III intraepithelial neoplasia: biologic progression or independent lesions?". Eur J Obstet Gynecol Reprod Biol. 121 (1): 99–103.
- [4] Murthy NS, Mathew A (February 2000). "Risk factors for pre-cancerous lesions of the cervix". European Journal of Cancer Prevention. 9 (1): 5–14.
- [5] Wright, T. C.; Massad, L. S.; Dunton, C. J.; Spitzer, M.; Wilkinson, E. J.; Solomon, D.; 2006 American Society for Colposcopy Cervical Pathology-sponsored Consensus Conference (2007). "2006 consensus guidelines for the management of women with cervical intraepithelial neoplasia or adenocarcinoma in situ". American Journal of Obstetrics and Gynecology. 197 (4): 340–345

- [6] Spracklen, C. N.; Harland, K. K.; Stegmann, B. J.; Saftlas, A. F. (2013). "Cervical surgery for cervical intraepithelial neoplasia and prolonged time to conception of a live birth: A case-control study". BJOG: an International Journal of Obstetrics & Gynaecology. 120 (8): 960–965.

