

# Histopathological spectrum of malignant tumours of the uterine cervix

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## Abstract

**Introduction:** Carcinoma of the cervix is one of the leading cancers in women worldwide with a high incidence in India. This study was done to know the frequency of various cervical cancers in a tertiary care hospital. **Material and Methods:** In this study a review was made of the histopathology cases received in the Department of Pathology from July 2008 to June 2012. **Results:** The age of the patients ranged from 30 to 85 years, most of the patients being in the age group 50-59 years. The most common presenting complaints were either postmenopausal bleeding or irregular bleeding. The various squamous cell carcinomas were large cell nonkeratinising –twenty cases, large cell keratinizing – two cases, small cell type – two cases, and, squamo-transitional and verrucous—one case each. The glandular carcinomas were adenocarcinoma (well-differentiated), villoglandular papillary, and endometrioid—one case each. The other carcinomas were adenosquamous, adenoid basal cell – one case each and small cell neuroendocrine-two cases. **Conclusion:** There is a wide spectrum of cervical malignancies encountered in routine practice and recognition of these may be important in determining prognosis and treatment.


**Keywords:** Cervix, carcinoma, squamous cell, adenocarcinoma.

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## INTRODUCTION

Carcinoma of the cervix is one of the leading cancers in women worldwide. The incidence has markedly declined in many developed countries, mainly due to the screening programmes. Currently 80% of the women dying from cervical cancer are in the developing countries. India has a high incidence of carcinoma cervix, with an unfavourable incidence to mortality ratio. This study was done to know the frequency of various cervical cancers in a tertiary care hospital.

## MATERIAL AND METHOD

In this study a review was made of the histopathology cases received in the Department of Pathology from July 2008 to June 2012.

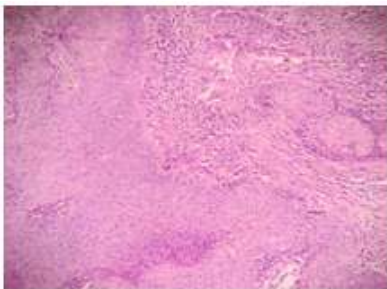
## RESULTS

The age of the patients ranged from 30 to 85 years, most of the patients being in the age group 50-59 years. The most common presenting complaints were either postmenopausal bleeding or irregular bleeding. The various histological types are shown in Table 1. Squamous cell carcinomas of the non keratinising type were the most common. Rare variants of squamous cell carcinoma included a case of squamo-transitional type (Figure 1). There was a rare case of an 85 year old female who presented with a haematocele of the uterus. On histological examination there was an adenocarcinoma of the cervix causing obstruction resulting in the haematocoele (Figures 2A and 2B). Rare variants of adenocarcinoma included villoglandular (papillary) (Figure 3), and endometrioid types (Figures 4A and 4B). There was also one rare case of adenoid basal carcinoma (Figure 5).

**Table 1:** Showing the various histological types of cervical carcinomas found in our study

HISTOPATHOLOGICAL TYPE	NO. OF CASES (n=33)
<b>SQUAMOUS CELL CARCINOMA</b>	<b>26</b>
Large Cell Nonkeratinising ca	20
Large Cell Keratinising ca	2
Small Cell (poorly differentiated) ca	2
Squamo-transitional cell ca	1
Verrucous ca	1

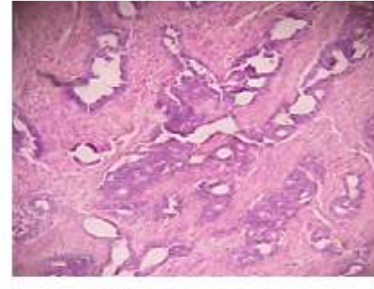
<b>ADENOCARCINOMA</b>	<b>3</b>
Adenocarcinoma (endocervical type)	1
Villoglandular (papillary) ca	1
Endometrioid ca	1
<b>OTHERS</b>	<b>4</b>
Adenosquamous ca	1
Adenoid basal ca	1
Neuroendocrine ca	2



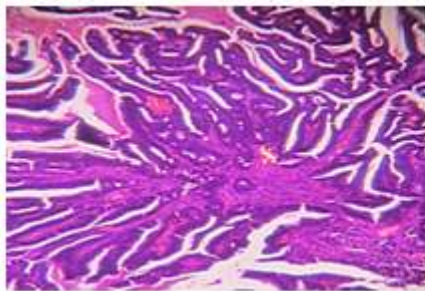
**Figure 1:**



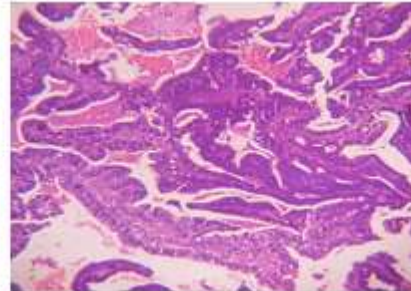
**Figure 2 A:**



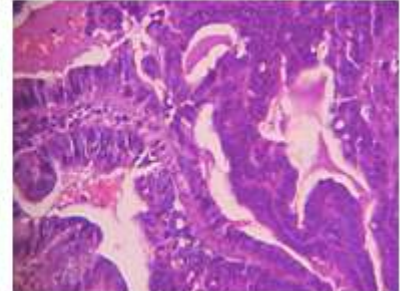
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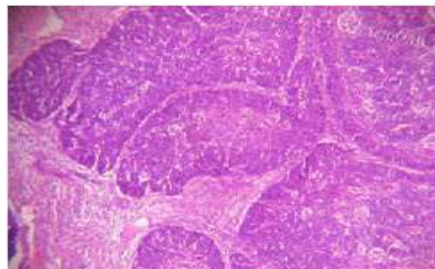
**Figure 3:**



**Figure 4 A:**



**Figure 4B:**



**Figure 5:**

**Figure 1:** Showing tumour with areas resembling squamous and transitional epithelia (squamo-transitional carcinoma) (HandE 10x)

**Figure 2 A:** A case of adenocarcinoma of the cervix presenting as haematocele

**Figure 2 B:** Microscopically the tumour was composed of malignant glands suggesting an adenocarcinoma (HandE,10x)

**Figure 3:** Showing a tumour composed of cells arranged in a frond-like pattern suggestive of villoglandular carcinoma (HandE 4x)

**Figure 4A:** Showing endometrioid carcinoma (HandE 10x)

**Figure 4B:** Showing higher magnification of the same tumour showing irregular glands lined by malignant cells (HandE 40x)

**Figure 5** showing adenoid basal cell carcinoma composed of smaller cells arranged in lobules with nuclear palisading at the periphery. (HandE 4x)

## DISCUSSION

Primary squamous cell carcinoma is the most common type of invasive epithelial tumour. The tumours vary in their pattern of growth, cell type and degree of

differentiation. They have been sub typed as large cell keratinizing and nonkeratinizing.<sup>1</sup> Some include a third category called small cell non keratinising type.<sup>2</sup> However the term small cell carcinoma is preferably reserved for neuroendocrine carcinomas.<sup>2</sup> A transitional

cell carcinoma histologically indistinguishable from that occurring in the urinary bladder has been described rarely. It may occur in pure form or may contain malignant squamous elements, called squamo-transitional carcinoma.<sup>3,4,5</sup> Verrucous carcinoma is a very rare highly differentiated squamous cell carcinoma that has a warty surface. They invade the underlying stroma with a pushing border. They have a tendency for local recurrence but not metastasis.<sup>1,6,7</sup> Cervical adenocarcinoma is a diverse group of tumours, encompassing a variety of histological types. The clinical characteristics and risk factors are the same for each tumour type.<sup>1</sup> Mucinous adenocarcinoma is the most common type. It is composed of papillary structures lined by endocervical type of epithelium.<sup>1</sup> Villoglandular adenocarcinoma is a rare, well-differentiated variant that occurs in young women and has an excellent prognosis. The tumour forms a papillary friable mass.<sup>2,8,9,10</sup> Endometrioid carcinoma is histologically similar to its counterparts in the endometrium and ovary. The clinical presentation and gross appearance are similar to other types of cervical carcinoma.<sup>1</sup> Adenosquamous carcinomas are composed of malignant squamous and glandular elements. They are thought to arise from the reserve cells of the endocervical epithelium which probably undergoes biphasic differentiation.<sup>1</sup> Adenoid basal carcinoma occurs in postmenopausal women. It is composed of nests of cells with a lobular configuration.<sup>1,11,12</sup> Neuroendocrine tumours include carcinoids, atypical carcinoids and small cell carcinoma. Typically neuroendocrine differentiation is demonstrated by positivity for chromogranin and synaptophysin. Small cell carcinoma is the most common accounting for 1-6% of all cervical carcinomas. Patients are typically younger. Microscopically the tumour is composed of small cells with high nucleo-cytoplasmic ratio, inconspicuous nucleoli and finely stippled chromatin.<sup>1,2,13,14,15</sup>

## CONCLUSION

There is a wide spectrum of cervical malignancies and recognition of these may be important in determining prognosis and treatment.

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