

## **Importance of Pap Smear for Prevention of Cervical Carcinoma**

*Naveen Chand Perugu<sup>1</sup>, Anwesha Chaudhari<sup>2</sup>, Gunvanti Rathod<sup>3\*</sup>*

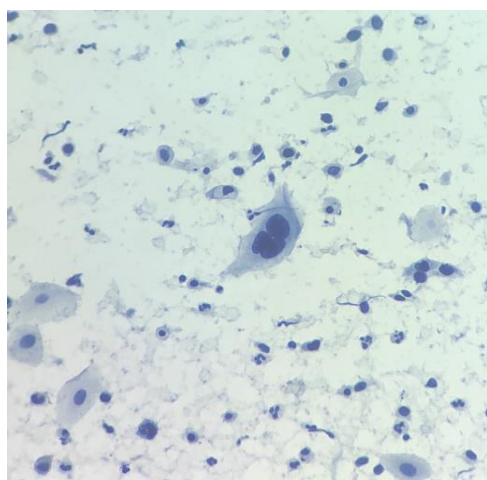
*<sup>1</sup>Senior Resident, <sup>2</sup>Junior Resident, <sup>3</sup>Additional Professor*

*<sup>1,2,3</sup>Pathology and Laboratory Medicine Department, AIIMS, Bibinagar, Telangana*

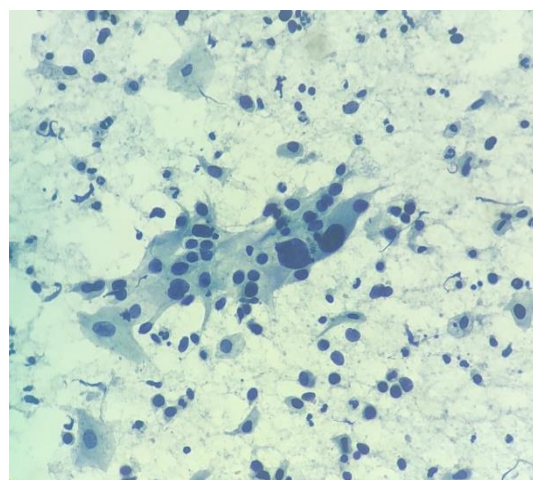
*\*Corresponding Author*

*Email Id: neempath@gmail.com*

54 years old woman presented with a chief complaint of post-menopausal bleeding per vagina in our hospital. On examination, she had an unhealthy cervix which bleeds on touch. The clinicians were suspecting carcinoma of cervix so that Pap smear test was advised and we examined the Pap smear microscopically. The smear showed marked pleomorphic tumor cells with nuclear atypia and macronucleoli. Many tumor cells showed spindling and cytoplasmic tailing. The background showed extensive tumor diathesis. (Photograph - 1, 2) All these findings of the Pap smear suggested a diagnosis of squamous cell carcinoma of the cervix. For further workup cervical biopsy was advised. If this patient had undergone a Pap smear examination as a routine cervical screening program, we could have detected the malignancy in the early stage and the prognosis for the patient could have been better.



*Photograph 1 showed malignant squamous cells with tumor necrosis in the back ground (Pap stain, 40 X)*



*Photograph 2 showed highly pleomorphic malignant squamous cells (Pap stain, 40 X)*

Here, we discuss a few important details about Pap smear and its role in the prevention of cervical cancer.

The major reason of death in women because of cancer is cervical cancer in the whole world. In many developing countries cervical carcinoma is the most common malignancy and it is second only to breast cancer worldwide [1]. The most common risk factors for cervical cancer include multiple sexual partners, immunodeficiency and cervical inflammation caused by genital infections, which could lead to the development of cervical cytological abnormality [2]. In developing countries, there is a lack of awareness of cervical cancer screening in general population which is responsible for the high incidence of cervical carcinoma. [3] Implementation of the cervical cancer screenings proved very effective in controlling the incidence of invasive cervical cancer worldwide.[4] It is very important to

detect Carcinoma in situ in early stage, which can lead to early treatment to stop the development of cancer in time. Early detection and appropriate treatment are possible if vigorous screening is implemented. [5] Pap smear, also known as cervical cytology, is a crucial screening tool for the prevention of cervical cancer. It can detect abnormal changes in the cells of the cervix, often before they become cancerous. Detecting these changes early allows for timely intervention and preventive measures, preventing the progression of cervical cancer. Regular Pap smears have been instrumental in significantly reducing the incidence of cervical cancer. Screening helps in the identification of precancerous lesions or early-stage cancer, enabling prompt treatment and preventing the development of advanced, more difficult-to-treat stages. Early-stage cervical cancer is often more treatable and associated with better outcomes. In addition to that, abnormal Pap smear results provide valuable information that guides healthcare professionals in determining the appropriate course of action for follow-up care. This may include additional testing, more frequent screenings, or specific medical interventions. Regular Pap smears empower individuals by giving them an active role in their health. Women aged 21 to 29 should have a Pap test alone every 3 years. Women age 30 to 65 have three options for testing. They can have both a Pap test and an HPV test every 5 years. They can have a Pap test alone every 3 years. Or they can have HPV testing alone every 5 years. After age 65, one can stop having cervical cancer screenings if she never had abnormal cervical cells or cervical cancer. Routine screenings enable individuals to take control of their cervical health and work collaboratively with healthcare providers to address any abnormalities promptly. Therefore it is the need of the hour to increase awareness about the importance of Pap smear for prevention of cervical cancer.

## REFERENCES

- 1) Parkin, D.M.; Bray, F.; Ferlay, J.; Pisani, P. Global cancer statistics, 2002. *CA Cancer J. Clin.* 2005, 55, 74-108.
- 2) Sales, K.J.; Katz, A.A. Inflammatory pathways in cervical cancer - the UCT contribution. *S Afr Med J.* 2012, 102, 493-6.
- 3) Ferlay J, Soerjomataram I, Dikshit R, Eser S, Mathers C, Rebelo M, et al. Cancer incidence and mortality worldwide: Sources, methods and major patterns in GLOBOCAN 2012. *Int J Cancer.* 2015; 136:E359–86.
- 4) Yang, L.; Huangpu, X.M.; Zhang, S.W.; Lu, F.Z.; Sun, X.D.; Sun, J.; Mu, R.; Li, L.D.; Qiao, Y.L. Changes of mortality rate for cervical cancer during 1970's and 1990's periods in China. *Acta Academiae Medicinae Sinicae* 2003, 25, 386-390.
- 5) Bal MS, Goyal R, Suri AK, Mohi MK. Detection of abnormal cervical cytology in papanicolaou smears. *J Cytol.* 2012; 29:45–7.