Abnormal Pap Smear Detection by Application of Revised Bethesda System in Commercial Sex Workers and a Control Group: A Comparative Study

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Abstract : Cervical Cancer is a major public health hurdle in the area of women's health. The most common cause of Cervical Cancer is the Human Papilloma Virus (HPV). Human papilloma virus has various genotypes, with HPV 16 and HPV 18 being the major etiological factor causing carcinoma of the Cervix. Early screening and detection by Papanicolaou Smears (PAP) is an effective method for identifying premalignant and malignant lesions. In case of existing pre-malignant lesions /cervical dysplasia's found with HPV 16 or 18, appropriate follow up can be done to prevent it from developing into a neoplasm. Aims and Objectives: Primary Aim; To study various abnormal cervical cytology reports as detected by Pap Smear Tests, using the Bethesda System in women at a Tertiary Care Hospital. Secondary Aim; To discuss the importance of Pap smear in Cervical Cancer Screening Program. Materials and Methods: Our study is a prospective study, based on 101 women who attended the Out-patient department of Obstetrics and Gynecology at a tertiary care hospital in age group 20-40 years with chief complaints of white/foul vaginal discharge, post-coital Bleeding, low back pain, irregular menstruation, etc. 60 women, who were tested, of the total no of women, were commercial sex workers, thus being a high-risk group for HPV infection. All women underwent conventional cytology. For all the abnormal smears, further cervical biopsies were done, and the final diagnosis was done on the basis of histopathology (gold standard). Results: In all these patients, 16 patients presented with normal smears out of which 2 belonged to the category of commercial sex workers (3.33%) and 14 being from the normal/control group (34.15%). 44 women presented with inflammatory smears out of which 30 were commercial sex workers (50%) and 14 from the control Group (34.15%). A total of 11 women presented with infectious etiology with 6 being commercial sex workers (10%) and 5 (12.2%) being in the control group. A total of 8 patients presented with low-grade squamous intra epithelial lesion (LSIL) with 7 (11.7%) being commercial sex workers and 1(2.44%) patient belonging to the control group. A Total of 7 patients presented with high-grade squamous intraepithelial lesion (HSIL) with 6 (10%) being commercial sex workers and 1 (2.44%) belonging to the control group. 9 patients in total presented with atypical squamous cells of undetermined significance (ASCUS) with 6(10%) being commercial sex workers and 3 (7.32%) belonging to the control group. Squamous cell carcinoma(SCC) presence was found only in 1(1.7%) commercial sex worker. Conclusion - We conclude that HSIL, LSIL, SCC and sexually related infections are comparatively more common in vulnerable groups such as sex workers due to a variety of factors such as multiple sexual partners and poor genital hygiene. Early screening and follow up interventions are highly needed for them along with Health education for risk factors and to emphasize on the importance of Pap smear screening.

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