



RESEARCH ARTICLE

RISING TRENDS IN INCIDENCE OF PRECURSOR LESIONS AND CARCINOMA OF CERVIX IN JHARKHAND AREA IN A STUDY ORGANISED BY RIMS, RANCHI, JHARKHAND

¹Dr. Abhishek Verma, ^{*}²Dr. Anu Singh, ³Dr. Mukta Kumar, ⁴Dr. Trilochan Singh, ⁵Dr. R.K. Srivastava, ⁶Dr. Ratna Chaudhari, ²Dr. Purnima Bharati

¹Department of Laboratory Medicine, RIMS, Ranchi

²Junior Resident, Department of Pathology, RIMS, Ranchi

³Department of Pathology RIMS, Ranchi

⁴HOD, Department of Pathology RIMS, Ranchi

⁵Department of Pathology, RIMS, Ranchi

ARTICLE INFO

Article History:

Received 22nd May, 2016
Received in revised form
25th June, 2016
Accepted 04th July, 2016
Published online 31st August, 2016

Key words:

Cervix,
Carcinoma,
Vaccination,
Jharkhand,
RIMS.

ABSTRACT

Background and Objectives: This study was designed to emphasise upon alarming rising trends in incidence of carcinoma cervix, vagina, vault, vulva and their precursor lesions eventually presenting with carcinoma cervix in follow-up. The main aim of this study was to identify precursor lesions as soon as possible by screening through PAP SMEAR as soon as possible and to make the patients and attending clinicians aware so that the morbidity can be reduced.

Context: It's unfortunate that incidence of female genital tract malignancies especially cervix has been rising due to lack of awareness, early age of sexual intercourse.

Materials and Methods: Cusco's speculum, swab stick, Ayre's spatula, 95% Alcohol, PAP STAINING, Histopathological Techniques.

This study was conducted over a period of 7 years commencing from August 2009 to July 2016. Approximately 11,200 patients were taken for the study and all these patients were subjected to Pap smear screening. The patients with diagnosis of L-SIL, H-SIL or carcinoma were further advised follow-up and Biopsy.

Settings and Design: It is a prospective study carried out in department of gynaecology cytology, department of pathology, RIMS

Results: Out of 11,200 cases, 874 cases were diagnosed as malignant, 3662 as premalignant, 6171 as inflammatory, 493 as ASCUS/ AGUS. 4464 cases who came as follow-up for biopsy were diagnosed as squamous cell carcinoma (711 cases), Adenocarcinoma (355 cases), Small cell carcinoma (178 cases) and clear cell carcinoma (6 cases), LSIL (2232 cases) & HSIL (982 cases).

Conclusion: This study was conducted to create awareness about rising trends in incidence of carcinoma cervix. Patients and general public should be aware so that predisposing factors to carcinoma cervix can be prevented and the incidence of disease can be controlled.

Copyright©2016, Dr Abhishek Verma et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: Dr Abhishek Verma, Dr Anu Singh, Dr Mukta Kumar et al. 2016. "Rising Trends in incidence of precursor lesions and carcinoma of cervix in jharkhand area in a study Organised by Rims, Ranchi, Jharkhand", *International Journal of Current Research*, 8, (08), 37272-37274.

INTRODUCTION

One woman dies of cervical cancer every 8 minutes in India ^[1]Cervical cancer is the third most common cancer in females in world.²It has been observed that in developing countries, incidence has been rising especially among underprivileged lower socioeconomic strata.

Despite of introduction of FDA licensed vaccines like Cervarix and Gardasil against human papilloma virus, precursor lesions of cervix are still facing a rising trend due to lack of awareness and ignorance among females of developing countries.² This study concentrates mostly on female patients attending RIMS Gynaecology cytology department. Patients coming here belong to Jharkhand, especially the periphery areas and other adjoining states like Orissa, West Bengal and Bihar. In our area like Jharkhand, usage of vaccines against human papilloma virus is negligible. Unprotected sexual intercourse,

**Corresponding author: Dr Anu Singh,*
Junior Resident, Department of Pathology, RIMS, Ranchi

early age of pregnancy, prolonged use of oral contraceptives, increasing incidence of immunocompromised population, especially rising trends in HIV has led to increase in incidence of carcinoma cervix. Multiparity and lower socioeconomic conditions, especially noted in Jharkhand area has also contributed to increased incidence.³ Therefore, the incidence of carcinoma cervix and its premalignant lesions is on rise. Squamous cell carcinoma is the most common histologic subtype, accounting for 80% of cases.²

OBSERVATION AND RESULTS

11,200 cases were taken for study which were classified cytologically as follows

Sl. No.	Lesion	No. of cases	Percentage
1.	Malignant	874	7.8%
2.	Premalignant	3662	32.7%
3.	Inflammatory	6171	55.1%
4.	Others (ASCUS & AGUS)	493	4.4%

This is a collective data of the whole study period in which detailed study revealed that the incidence of premalignant and malignant lesions increased in later stages of the study period. Among these, patients with malignant and premalignant lesions were advised for cervical biopsy. Among these, 4234 tissues were received for biopsy in our histopathology department and approximately 230 patients with cytological diagnosis of ASCUS & AGUS came for follow-up and underwent biopsy.

Distribution of neoplasia on histopathology

Lesions	No. of cases	Percentage
Malignant		
Squamous cell carcinoma	711	15.95
Adenocarcinoma	355	7.95
Small cell carcinoma	178	3.97
Clear cell carcinoma	6	0.13
Premalignant	3214	72
LSIL	2232	50
HSIL	982	22
Total	4464	100

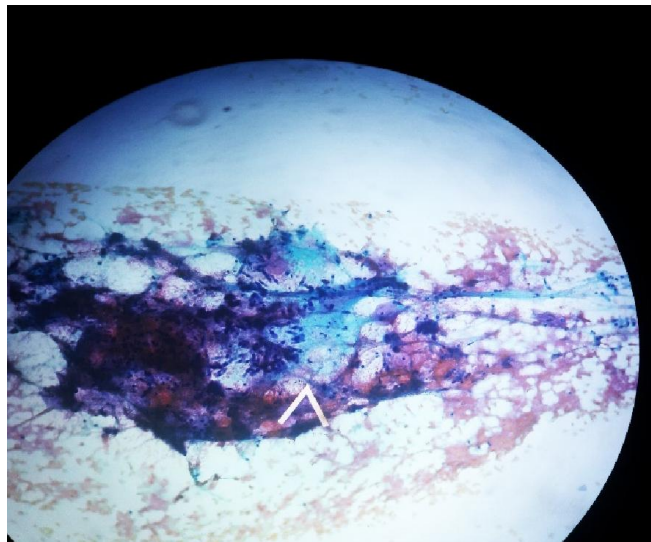


Figure 2. Atypical glandular cells of unknown significance

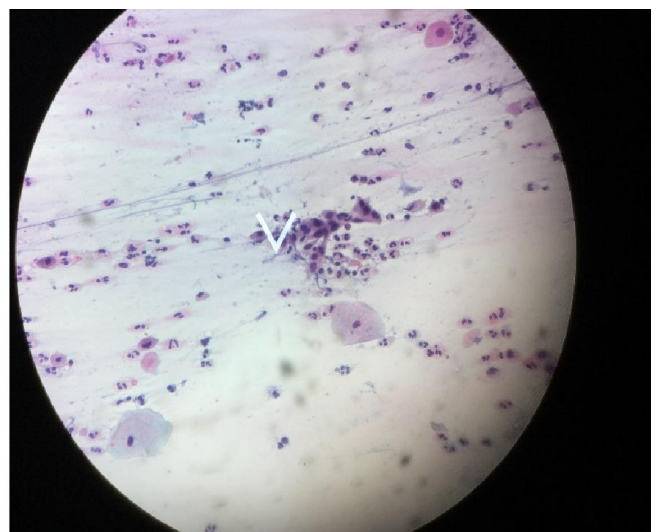


Figure 3. LOW GRADE SIL

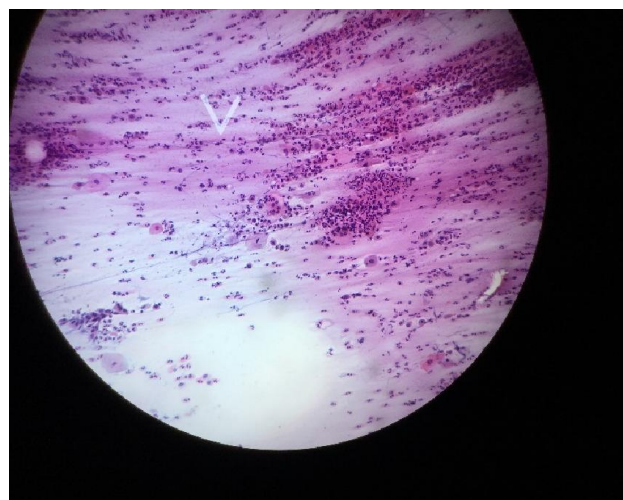


Figure 1. Non specific cervicitis

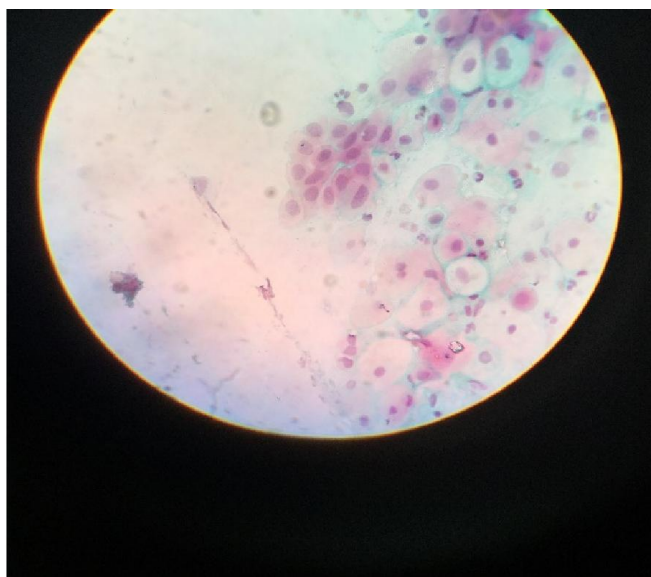
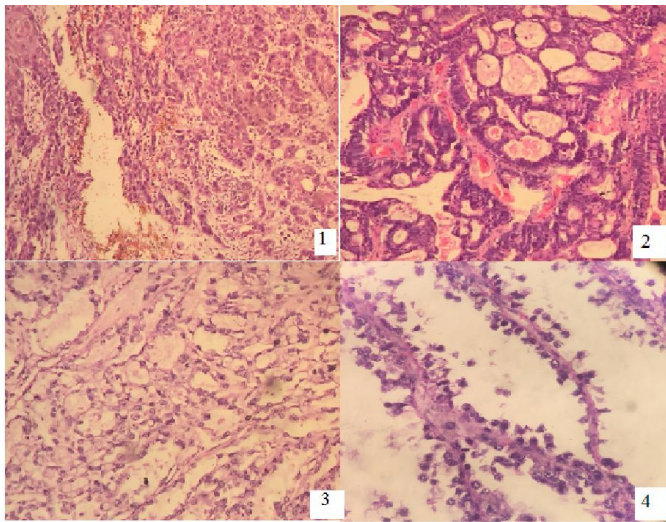


Figure 4. HIGH GRADE SIL



H&E : Fig. 1 - Squamous carcinoma cervix , Fig. 2 - Endocervical adenocarcinoma , Fig. 3 - Clear cell carcinoma cervix , Fig. 4 - Hobnailing seen in Clear cell adenocarcinoma.

Figure 5. Representing malignant lesions of cervix

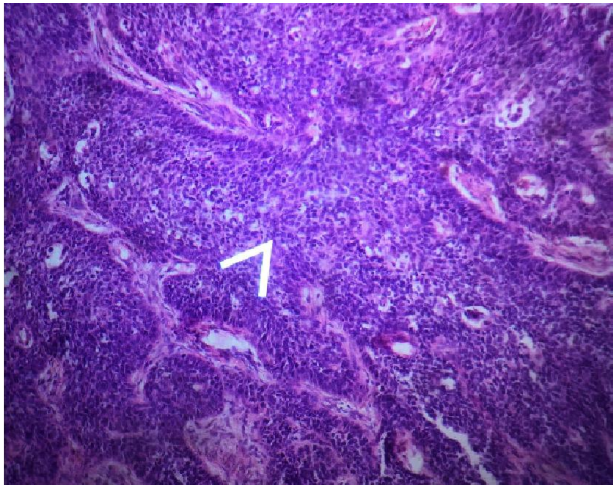


Figure 6. Small Cell Carcinoma of Cervix

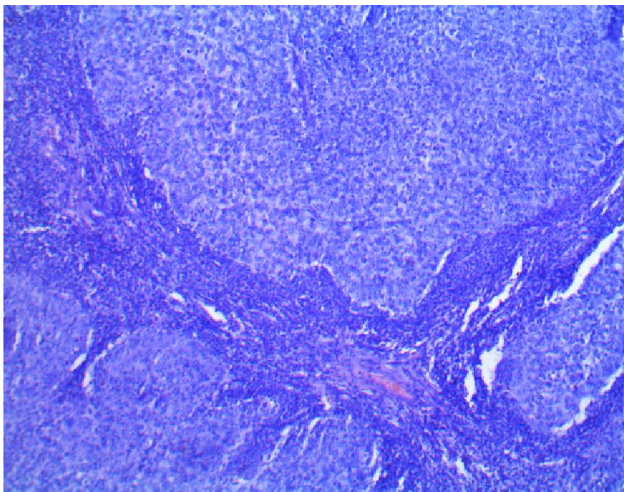


Figure 7. Basaloid carcinoma of cervix

Conclusion

This study was done to create awareness among clinicians and general public about the increasing incidence of carcinoma cervix. This would result in females to be acknowledged with the predisposing factors so that prevention can curb the rising incidence in carcinoma cervix. It is important to start vaccination for human papilloma virus in Jharkhand area as a routine procedure since it is less commonly practised compared to other states. This study also assessed the diagnostic accuracy of Pap smear and correlation with histopathological diagnosis. Henceforth, Pap smear is still the standard screening test to diagnose premalignant and malignant lesions of cervix.

DISCUSSION

Various studies including ours have proved for one and all that cytologic cancer screening has significantly reduced the mortality resulting from cervical cancer.⁵ According to the recent most data released by ICMR, carcinoma cervix is the commonest cancer among females followed by breast cancer.⁴ The regular practice of pap smear screening in our area has definitely diagnosed the neoplastic lesions at an earlier stage resulting in early biopsy and hysterectomy of the patients to prevent metastasis and mortality at later stages. Recommended vaccination for HPV for all girls and boys of age 12 years² and young men and women upto 26 years should be introduced in Jharkhand. Two multivalent vaccines have been developed to prevent HPV infection. A quadrivalent vaccine that protects against HPV types 6, 11, 16, and 18, and a bivalent vaccine protecting against HPV 16 and 18 were both over 90% effective in reducing vaccine-type persistent infections and CIN.^{6,7}

REFERENCES

1. WHO Summary report on HPV & cervical cancer statistics in India (18/03/2008)
2. Robbins & Cotran Pathologic Basis of Disease, 9th edition page no. 1001 -1007
3. Boyd's textbook of pathology, 10th edition, page no. 1204
4. <http://icmr.nic.in/cancer.pdf>
5. Macaskill P, editor. Cancer facts and figures 2005. Atlanta, GA: American Cancer Society; 2005.
6. Harper DM, Franco EL, Wheeler C, et al. Efficacy of a bivalent L1 virus-like particle vaccine in prevention of infection with human papillomavirus types 16 and 18 in young women: a randomised controlled trial. *Lancet* 2004; 364:1757–1765.
7. Villa LL, Costa RL, Petta CA, et al. Prophylactic quadrivalent human papillomavirus (types 6, 11, 16, and 18) L1 virus-like particle vaccine in youngwomen: a randomised double-blind placebo-controlled multicentre phase Iefficacy trial. *Lancet Oncol* 2005; 6:271–278.
