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## Cytological study of radiation changes in cervical and vaginal smears in patients of carcinoma cervix

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Cancer cervix is a common malignancy among females in India and developing countries with an estimated approximately 90,000 new cases occurring every year in India. Cytology has been known to play a major role in evaluating patients after radiotherapy. This study was undertaken to study the radiation changes in cervical and vaginal smears in patients of carcinoma cervix after exposure to radiation therapy and to determine the significance of post radiation cytological changes in detecting recurrence of carcinoma and residual disease. Fifty histologically proven, previously untreated cases of carcinoma of the uterine cervix were taken up for this study. Cervical and vaginal smears were subjected to Papanicolaou staining before and after 8-12 weeks of completion of radiation therapy. The majority of cases were seen in the 5<sup>th</sup> and 6<sup>th</sup> decades of life, (90% cases). Nuclear enlargement was the most frequent change observed in 38 cases (95.0%), followed by vacuolization of the cytoplasm in 32 cases (80%), with fine, regular or large and voluminous vacuoles. Amphophilia and polychromasia of the cytoplasm was observed in 18 cases (45%). Multinucleation was also a prominent feature observed in 30 cases (75%). Histiocytic and neutrophilic infiltration of the smears was present in 23 cases (57%). Wrinkling of nuclei was observed in 17 cases (42.5%) and bizarre forms like tadpole and fibre like cells were noted in 15 cases (37.5%). Recurrence of squamous cell carcinoma was noted in 9 cases (22.5%), with presence of small dark tumor cells and large naked nuclei in the post-irradiated smears.

### Biography

Kafil Akhtar is Associate Professor in the department has completed his M.B.B.S, M.D in Pathology and D.M.R.T in Radiotherapy from Jawaharlal Nehru Medical College, Aligarh Muslim University, Aligarh, India. He has published more than 120 research papers in reputed journals and has written two books entitled Cytological study of Radiation Changes in Carcinoma Cervix and Principles of Transfusion Medicine. He is the Sub-Editor of Journal of Cytology and Histology and reviewer to more than 20 journals of repute. He has been Editors of Souvenirs of various Conferences and Joint Organizing Secretary of International Symposium on Women's ((Breast & Gynae) Pathology.

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