

## Case Report-3

# Lymphoepithelioma-Like Carcinoma Of Uterine Cervix: A Case Report

AMITA MAHESHWARI, REKHA WUNTKAL, SUDEEP GUPTA, SHUBHADA V KANE, HEMANT B TONGAONKAR

### ABSTRACT

**Lymphoepithelioma-like carcinoma (LELC) of uterine cervix is an uncommon variant of squamous cell carcinoma. It differs from the usual squamous cell carcinoma of the cervix in its morphology and clinical behavior. The prognosis of LELC of the cervix is better than squamous carcinoma. We report a case of LELC of cervix (FIGO stage IIB) in a 49-year-old woman who presented with six months history of postmenopausal bleeding per vaginum and was treated primarily with radical radiation therapy. She is free of disease for the last ten years.**

### INTRODUCTION

Lymphoepithelioma-like carcinoma (LELC) of the cervix is a rare variant of squamous cell carcinoma. It was first reported by Hamazaki et al in 1968.<sup>1</sup> Its histological features closely resemble those of nasopharyngeal lymphoepithelioma.<sup>2</sup> These tumours need to be differentiated from the usual squamous cell carcinomas since their clinical course is different, with a better prognosis.

**Case:** A multiparous, 49-year-old Asian woman presented with six months history of postmenopausal vaginal bleeding. The general physical examination was normal. On pelvic

examination the cervix was hard, bulky and bled to touch. Both parametria were involved but not up-to lateral pelvic walls (FIGO stage IIB). The other pelvic organs were normal. Metastatic work-up was negative. Histopathological examination of the cervical punch biopsy revealed sheets of undifferentiated carcinoma cells admixed with lymphocytes, eosinophils and plasma cells (Fig-1). Higher magnification showed large undifferentiated cells rimmed by reactive cells mimicking lymphoepithelioma [Fig-2] On immunohistochemical examination, tumour cells were positive for cytokeratin (CK) and epithelial membrane antigen (EMA) and were negative for leukocyte common antigen (LCA) and CD20, thus confirming the diagnosis of LELC. The patient was treated with radical radiation therapy (external radiation, 50Gy/25# plus single intra-cavitary application of 30Gyby LDR). She has remained disease free for the last ten years.

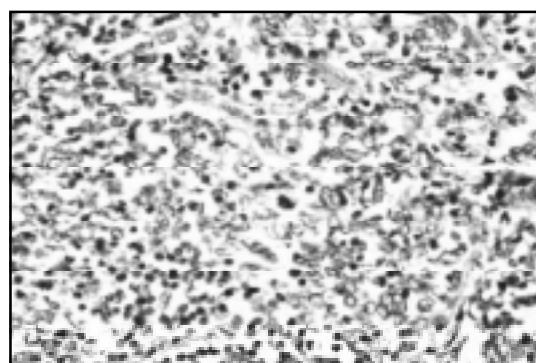


Fig 1: Photomicrograph shows large carcinoma cells marked by reactive lymphoid cells (H&E x100)

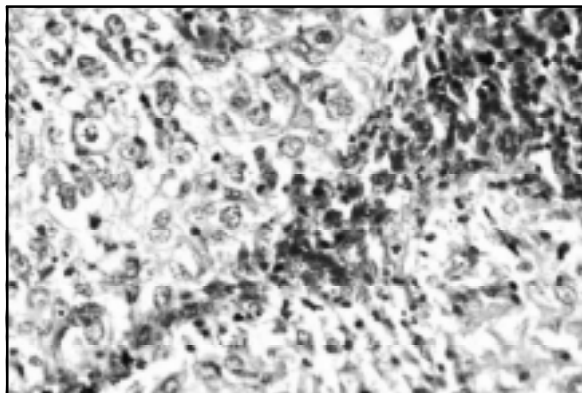


Fig 2: Higher magnification shows undifferentiated carcinoma cells rimmed by lymphocytes and plasma cells resembling lymphoepithelioma (H&E x 400)

## DISCUSSION

Cervical Lymphoepithelioma-like carcinoma (LELC) accounts for only 0.7% of all primary malignant cervical neoplasms in Western countries. However, a higher incidence rate has been reported in Asian women.<sup>3</sup> Originally this tumour was described in the nasopharynx; similar tumours have been documented at various other sites like skin, lung, thymus, salivary gland, stomach and tonsil.<sup>4</sup>

Histopathologically, LELC is characterized by syncytial like aggregates of undifferentiated tumour cells with indistinct cytoplasmic margins, vesicular nuclei with prominent nucleoli and lack of glandular or squamous differentiation.<sup>5</sup> Tumour cells are surrounded by a marked inflammatory infiltrate which probably represents host response to the tumour. This typical microscopic appearance and immunohistochemistry for epithelial and lymphoid markers can help in differentiating cervical LELC from the poorly differentiated squamous cell carcinoma and lymphoproliferative lesions.

Unlike classical squamous cell carcinoma of the cervix where the role of human papilloma virus (HPV) in its pathogenesis has been proven beyond doubt,<sup>6</sup> the pathogenesis of cervical LELC is yet to be elucidated. Epstein-Barr virus

(EBV) has been implicated in the pathogenesis of cervical LELC in Asian women.<sup>3</sup> In contrast, most studies have failed to isolate EBV genomes in cervical LELC of non-Asian patients.<sup>7,8,9 & 10</sup> As suggested by Iezzoni et. al.<sup>11</sup> the racial and/or geographic factors may influence the association of EBV with LELC. The role of human papilloma virus in the pathogenesis of cervical LELC has been studied in the recent years. Many authors have shown the presence of oncogenic HPV-DNA by polymerase chain reaction in Western women with cervical LELC.<sup>7 & 10</sup>

When compared stage for stage, cervical LELC has a better prognosis than squamous cell carcinoma, with a lower frequency of regional lymph node metastasis.<sup>3</sup> Our patient was diagnosed with stage IIB disease and she remained free of disease for the past 10 years. The prominent lymphocytic infiltration may imply the presence of host immune response against the tumour. Interestingly, EBV associated lymphoepithelioma like carcinomas at other sites like lung also have a better prognosis than the more common cancers at those sites.<sup>12</sup> Older age, higher parity, lower stage and exophytic growth pattern are other characteristics of cervical LELC.<sup>9</sup>

In conclusion, cervical LELC is rare but a distinct clinico-pathological entity that warrants a high index of suspicion amongst clinicians and pathologists. Immunohistochemistry is important for the confirmation of this diagnosis. Our patient was treated with radical radiation therapy. The long disease free status observed in our case is in keeping with other cases reported in literature.

## REFERENCES:

1. Hamazaki M, Fujita H, Arata T, Takata S, Hamazaki M. "Medullary carcinoma with lymphoid infiltration" of the uterine cervix—pathological picture of a case of cervix cancer with a favorable prognosis. *Gan No Rinsho* 1968;14:787-92.
2. Pires MA, Andrade MJ, Guerra C, Silva TS, de Oliveira C, Beja M. A lymphoepithelioma-like type of spinous-cell carcinoma of the cervix uteri. *Acta Med Port* 1999;12:235-237.
3. Tseng CJ, Pao CC, Tseng LH, Chang CT, Lai CH, Soong YK et al. Lymphoepithelioma-like carcinoma of the

- uterine cervix: association with Epstein-Barr virus and human papillomavirus. *Cancer* 1997;80:91-97.
4. Min KW, Holmquist S, Peiper SC, O'Leary TJ. Poorly differentiated adenocarcinoma with lymphoid stroma (lymphoepithelioma-like carcinomas) of the stomach. Report of three cases with Epstein-Barr virus genome demonstrated by the polymerase chain reaction. *Am J Clin Pathol* 1991;96:219-227
  5. Mills SE, Austin MB, Randall ME. Lymphoepithelioma-like carcinoma of the uterine cervix. A distinctive, undifferentiated carcinoma with inflammatory stroma. *Am J Surg Pathol* 1985;9:883-9.
  6. Walboomers JMM, Jacobs MV, Manos MM, Bosch FX, Kummer JA, Shah KV et al. Human papillomavirus is a necessary cause of invasive cervical cancer worldwide. *J Pathol* 1999;189:12-9.
  7. Bais AG, Kooi S, Teune TM, Ewing PC, Ansink AC. Lymphoepithelioma-like carcinoma of the uterine cervix: absence of Epstein-Barr virus, but presence of a multiple human papillomavirus infection. *Gynecol Oncol* 2005;97:716-718.
  8. Lopez-Rios F, Miguel PS, Bellas C, Ballestin C, Hernandez L. Lymphoepithelioma-like carcinoma of the uterine cervix: a case report studied by in situ hybridization and polymerase chain reaction for Epstein-Barr virus. *Arch Pathol Lab Med* 2000;124:746-747.
  9. Martorell MA, Julian JM, Calabuig C, Garcia-Garcia J, Perez Valles A. Lymphoepithelioma-like carcinoma of the uterine cervix. *Arch Pathol Lab Med* 2002;126:1501-1505.
  10. Noel J, Lespagnard L, Fayt I, Verhest A, Dargent J. Evidence of human papilloma virus infection but lack of Epstein-Barr virus in lymphoepithelioma-like carcinoma of uterine cervix: report of two cases and review of the literature. *Hum Pathol* 2001;32:135-138.
  11. Iezzoni J, Gaffey M, Weiss L. The role of Epstein-Barr virus in lymphoepithelioma-like carcinomas. *Am J Clin Pathol* 1995;103:308-315.
  12. Chen FE, Yan JJ, Lai WW, Jin YT, Su IJ. Epstein-Barr virus association in non small cell carcinoma: undifferentiated lymphoepithelioma like carcinoma as a distinct entity with a better prognosis. *Cancer* 1998;82:2333-2342



## ONCOLOGY 2006

Biennial Conference of Indian Society of Oncology (ISO) &  
Indian Society of Medical & Paediatric Oncology (ISMPO)

**November 10-12, 2006**

*Venue:*

**Mahavir Cancer Sansthan  
Phullwari Sharif, Patna-801505**

*Write to :*

**Dr. J K Singh**

Organizing Secretary

Tel. : 0612-2238511 (Office), Mobile : 0-94310-21001,

Fax : 0612-2253957