

# Re: Small-Cell Neuroendocrine Carcinoma of the Cervix Masquerading as a Cervical Fibroid

## Report of a rare entity

رد: سرطان الخلايا الصغيرة في الغدد الصم العصبية من  
عنق الرحم تشابه ورم عنق الرحم الليفي  
تقرير حالة نادرة

Dear Editor,

I read with interest the recent case report by Pujani *et al.* published in the February 2018 issue of *SQUMJ* in which the authors describe a case of small-cell neuroendocrine carcinoma (SNEC) of the cervix in a 44-year-old Indian woman.<sup>1</sup> I presume, given the rarity of this condition and the highly aggressive nature of the tumour, the authors have considered that the reported patient may have had an altered immune status.<sup>1</sup>

In India, HIV infection is a sizable health problem, with available data indicating a heightened seroprevalence of 0.26% compared to the global average of 0.2%.<sup>2</sup> Among those with altered immune states, HIV status is of the utmost importance. My presumption is based on the fact that HIV-infected patients are more vulnerable to various types of tumours compared to immunocompetent individuals. This increased vulnerability has been attributed to various factors, including suppressed immunity, associated infection with oncogenic viruses and prolonged life expectancy due to antiretroviral treatment.<sup>3</sup>

High rates of cervical cancer have been reported among HIV-infected patients.<sup>4</sup> Furthermore, genital cancers are found to occur in a substantial proportion of HIV-infected women in India.<sup>5</sup> Hence, a diagnostic blood work-up, cluster of differentiation (CD)4 count and viral overload measurements should have been conducted in order to determine the HIV status of the reported patient.<sup>1</sup> If the patient was subsequently found to have an HIV infection, the case in question would surely be considered novel as, to the best of my knowledge, HIV-associated SNEC of the cervix has not been reported in the literature to date.

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## Response from a Subject Editor

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Dear Reader,

I would like to respond to the above letter to the editor with regards to the aforementioned article by Pujani *et al.*<sup>1</sup> Small-cell neuroendocrine carcinoma (NEC) of the cervix is uncommon and accounts for less than 2% of all cervical cancers.<sup>2</sup> Although the diagnostic work-up for squamous cell carcinomas (SCCs) or adenocarcinomas of the cervix is very well described, the management plan for a cervical NEC is essentially extrapolated from that of cervical SSC and/or NEC of the lung. Up to 85% of cervical NEC cases may be caused by the human papilloma virus (HPV), especially strains 16 and 18, with very few case reports implicating HIV in the aetiopathogenesis of this tumour.<sup>3,4</sup>

Overall, NEC is an aggressive cancer in which over 50% of patients present at an advanced stage; additionally, patients have a poorer prognosis and a higher chance of recurrence compared to those with SCCs or adenocarcinomas of the cervix.<sup>5</sup> Various factors—including the age of the patient, clinical stage and extent of the disease (i.e. tumour size, parametrial involvement, depth of stromal invasion and lymph node metastasis) and type of treatment (either a radical hysterectomy in the early stages or chemotherapy for advanced disease)—predict survival after treatment.<sup>6</sup>

In their recent study of the molecular characteristics of cervical NEC, Xing *et al.* suggest that the tumour has an aggressive course.<sup>7</sup> Whereas high-risk HPV is involved at an early stage of oncogenesis, alterations in the *phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit  $\alpha$* , *K-Ras* and *tumour suppressor p53/breast cancer pathways* have been suggested to facilitate the progression of the disease. Other mutations include *Erb-B2 receptor tyrosine kinase 2*, *c-Myc*, *Notch-1*, *B-cell lymphoma-6* or *nuclear receptor coactivator-3*.<sup>7</sup>

In summary, although SNEC of the cervix is an uncommon cancer, recent research suggests that it follows an aggressive course, regardless of the patient's immune status.<sup>6,7</sup> Surveillance for HIV is therefore not routinely recommended and should be considered only in cases wherein the patient's clinical features or results of routine serological investigations raise suspicion of the disease.

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