

The Role of the Local Neural microenvironment in the Progression of cervical intraepithelial Neoplasia

A critical review

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Abstract

The peripheral nervous system is an essential component of the microenvironment of the cervix. Nerves regulate the physiological functions of internal organs and participate in the trophic process, tissue development, recovery and regeneration. It is also known that nerve endings release various neurotransmitters. Mechanisms of stimulation of nerve growth during tissue development and regeneration remain unclear. The Role of the nervous microenvironment in tumour processes has not yet been studied, although intensive research is underway to identify biomarkers of nervous tissue; so far, the obtained findings indicate a potentially critical role of the nervous system in carcinogenesis. It is interesting to study what Role other signalling molecules play in the neural regulation of tumours, which are traditionally associated with various functions of the nervous system but at the same time are involved in carcinogenesis. A detailed understanding of the Role of nerves and neural mediators in carcinogenesis can serve as a basis for identifying new biomarkers and developing new preventive, early detection or therapeutic strategies for different types of cancers.

Keywords: cervical cancer; intraepithelial neoplasia; microenvironment; nervous system;