

Progress in the use of immunotherapy to treat uterine cervical cancer

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ABSTRACT

Cervical intraepithelial neoplasia has a high incidence in many of the world's populations, and it has been hypothesized to be a precursor of uterine cervical cancer. Cervical intraepithelial neoplasia also shares similar pathological traits with human papillomavirus infections. Various surgical treatments have been proposed over the years for the treatment of cervical intraepithelial neoplasia, including conization, hysterectomy and, more recently, a loop electrosurgical excisional procedure. However, a higher recurrence rate of the disease has been observed after these procedures. Therefore, immunotherapy has been proposed as a potential treatment to be used in conjunction with surgery, or independently, as treatment for cervical intraepithelial neoplasia. Currently, immunotherapy includes the application of recombinant viral proteins, vaccines, or antibody- and dendritic cell-based therapies. In this review, we summarize the development and testing of these immunotherapy approaches, particularly in regard to their application for the treatment of cervical intraepithelial neoplasia.

Key words: cancer, cellular therapy, human papillomavirus, immunotherapy, interferon, uterine cervical cancer.

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