عنوان مقاله:

Fas and Fas ligand are highly expressed in lymphocytes from cervical intraepithelial neoplasia and cervical cancer patients: A possible role for immune escaping

محل انتشار:

مجله علوم پایه پزشکی ایران, دوره 25, شماره 3 (سال: 1401)

تعداد صفحات اصل مقاله: 7

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خلاصه مقاله:

Objective(s): Infection with high-risk human papillomavirus is required to develop cervical cancer. Some viruses modulate the Fas/FasL signaling to evade the immune response; the role of these molecules in cervical cancer is not clear. In this study, we measured the expression levels of Fas and FasL mRNA, soluble proteins, and cell surface proteins in peripheral blood mononuclear cells from patients with low- and high-grade squamous intraepithelial lesions and cervical cancer in relation to healthy women, to gain new insights into the role of Fas/FasL in cervical cancer development. Materials and Methods: Fas/FasL mRNA expression was measured in cervical tissues and peripheral blood mononuclear cells from patients and healthy subjects; serum soluble proteins Fas/FasL were measured by ELISA, and cell-surface protein expression was detected by flow cytometry. Results: Varying expression levels were found for both molecules. Cervical Fas and FasL mRNA expression was decreased in low- and high-grade lesions,

but it was increased in cervical cancer cases. While, systemic Fas mRNA expression increased as malignity progressed; systemic FasL mRNA expression was increased in low- and high-grade lesions, but it was decreased in cancer patients. Soluble FasL levels decreased as lesions progressed, while soluble Fas levels increased. Finally, overexpression of Fas/FasL on the surface of peripheral blood mononuclear cells was found in patients with low-grade lesion with respect to healthy donors. Conclusion: Fas and FasL act as negative modulators of the immune response, probably by removing specific cytotoxic T lymphocytes against papillomavirus -infected cells and tumor .cells

کلمات کلیدی:

Cervical Intraepithelial - neoplasia, Fas ligand protein, Fas receptor, Gene expression, Uterine Cervical Neoplasms