Down regulation of gp 130 in Nasopharyngeal Carcinoma

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摘要

Abstract

Background:
The purpose of this study was to explore the expression and biological functions of glycoprotein 130 (gp130) in Epstein-Barr virus (EBV)-associated nasopharyngeal carcinoma (NPC). A prospective study was performed.

Methods:
Ten patients with NPC and 10 patients with nasopharyngeal lymphoid hyperplasia (LH) were enrolled in this study. The transcripts of IL-27 receptors (gp130 and WSX-1) in the biopsy specimens derived from NPC were compared with that from LH by using reverse-transcription polymerase chain reaction. Cell lines including EBV−, Burkitt-like lymphoma (BJAB) cells, human adult peripheral blood mononuclear cells, and lymphoblastoid cell lines were used to provide evidence of the biological function of gp130. In addition, killing assay for natural killer (NK) cells was performed in the presence of gp130.

Results:
There was significantly stronger expression of gp130 on the LH specimens than on the NPC specimens. The levels of gp130 mRNA were reduced in the EBV-transformed cells. The cytotoxicity ratio against gp130-deficient B cells was diminished compared with gp130-existent B cells.

Conclusion:
The expression of gp130 is down-regulated in patients with NPC. We presume that EBV controls the functions of NK cells through regulation of gp130 cytokine receptor