New independent prognostic indicator in gastric cancer
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Despite many developments in the diagnosis and treatment of gastric cancer, it continues to be an important public health problem. Therefore, besides classical methods, new biomolecules are needed to facilitate the prediction of prognosis and reveal targeted treatment.

The P2X7 receptor is a special molecule that is thought to have important roles in inflammatory events and cancer progression. This receptor, located on the cell membrane, has been shown to increase in various types of cancer.

The P2X7 receptor has been reported as a poor prognostic marker in many malignant tumors such as pancreatic cancer, colorectal cancer and renal cancer. In some of the recent studies on cancer cell lines, results have revealed that P2X7 receptor antagonists slow tumor growth. However, there is no detailed clinical study investigating the effects of P2X7 receptor on the prognosis of patients with gastric cancer.

The study performed by the group of researchers from Faculty of Medicine, F?rat University, was designed to investigate whether the P2X7 receptor has an effect on the prognosis of gastric cancer.

P2X7 receptor expression was investigated in the tumoral tissues of 156 gastric cancer patients by immunohistochemical method. It was observed that there was no P2X7 receptor expression in normal mucosal cells adjacent to the tumoral areas.

The overexpression of P2X7 receptor was closely related to lymph node metastasis and increased distant metastasis rates. An increase in P2X7 receptor expression was determined, especially in cases with advanced stage of the gastric cancer. The cases with upregulated P2X7 receptor had low overall and disease-free survival.

In this study, published in the journal BJBMS, the upregulated P2X7 receptor expression has shown have independent adverse effects on the prognosis of patients with gastric cancer.


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