

T-regulatory lymphocytes in gastrointestinal cancer

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A research team from Poland and United Kingdom assessed the absolute number of T-regulatory cells in the peripheral blood of gastric and colorectal cancer patients. The study showed the absolute number of Tregs in the peripheral blood of gastric cancer patients was significantly decreased in comparison to that in the healthy controls.

T-regulatory lymphocytes (Tregs) are a subset of [T lymphocytes](#) that are involved in the mechanism of immunotolerance to self- and allo-antigens. Activity of these cells is one of the mechanisms of immune evasion of tumors, which inhibits the antitumor activity of effector [cells](#). Tregs are among the tumor-infiltrating lymphocytes and circulate in the peripheral blood. In various cancer types, increased prevalence of Tregs has been observed, and in some studies, this has been reported as a prognostic factor.

A research article published on January 21, 2011 in the [World Journal of Gastroenterology](#) addresses this question. The authors studied the peripheral blood Tregs as a potential disease marker, which was relatively easy to measure during pretreatment and follow-up periods.

The results indicated that the absolute number of Tregs in peripheral blood of [gastric cancer](#) but not colorectal cancer patients was significantly decreased in comparison with that in healthy controls. The findings suggest that the population of Tregs in peripheral blood does not simply mimic stromal Tregs. Further studies on larger groups of patients are necessary to evaluate the Treg population in cancer patients.

More information: Szczepanik AM, Siedlar M, Sierzega M, Goroszeniuk D, Bukowska-Strakova K, Czupryna A, Kulig J. T-regulatory lymphocytes in peripheral blood of gastric and colorectal cancer patients. World J Gastroenterol 2011; 17(3): 343-348.
www.wjgnet.com/1007-9327/full/v17/i3/343.htm

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