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TNM staging and T-cell receptor gamma expression in colon adenocarcinoma. Correlation with disease progression?

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ABSTRACT

Aims and background. Colorectal cancer is the second most common cause of cancer-related death in Europe and the United States. Several studies have evaluated the immune response to colorectal cancer, with contradictory results. Some studies showed that lymphocyte infiltration in colorectal cancer seemed to be an important prognostic parameter, a finding not confirmed by other studies. Several studies showed the gamma-delta T-cell receptor repertoire of intestinal adenocarcinoma. In this study, we hypothesize that the presence of T cells with the T-cell receptor gamma complex may play a particular role in carcinogenesis and tumor progression.

Methods. A total of 58 patients with colon adenocarcinoma was included in the analysis. We used the TNM staging system to grade colon cancer.

Results. Thirty samples (52.6%) revealed a polyclonal rearrangement of T-cell receptor gamma. In the N0 cases, only 5 samples revealed a T-cell receptor gamma molecular assessment; in N1/N2 cases, 25 revealed a T-cell receptor gamma molecular assessment.

Conclusions. The results showed statistical significance between the presence of T-cell receptor gamma and N1/N2 stage lymph nodes ($P = 0.001$).

Key words: *colon adenocarcinoma, immune host response, TCR-gamma.*

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