

DYNAMICS OF FIBRONECTIN LEVELS AT DIFFERENT STAGES OF COMBINED TREATMENT IN CANCER PATIENTS

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Fibronectin (FN) is a high-molecular-weight glycoprotein that plays a key role in cell adhesion, migration, tissue repair, and immune response. In oncology, interest in this protein stems is its potential influence on treatment efficacy and disease prognosis. Studying the dynamics of FN at different stages of treatment helps assess therapeutic response. However, data on changes in its concentration during treatment remain contradictory.

The aim of this study was to evaluate changes in serum FN levels in cancer patients at various stages of combined treatment (radiotherapy and surgery), as well as to analyze its possible prognostic value.

The study included 75 female patients with verified malignant breast tumors. Serum FN levels were determined by enzyme-linked immunosorbent assay (ELISA) at four stages: before treatment initiation, before surgery after completing radiotherapy, on the first and seventh days after surgery. The control group consisted of 20 healthy donors matched by age and sex. Statistical analysis was performed using descriptive statistics and Student's t-test.

Upon admission, FN levels did not significantly differ between patients and controls. Before surgery, after completing radiotherapy, FN levels in patients decreased but this decrease was not significant compared to the control group. On the first postoperative day, FN levels in the patient group showed a significant decrease compared to the previous stage ($P < 0.05$), but by the seventh day, FN levels in patients nearly returned to preoperative values.

In addition to laboratory findings, the clinical course of the postoperative period deserves attention. Five patients developed complications involving the respiratory and cardiovascular systems, which were associated with a noticeable delay in FN level recovery.

The data obtained are consistent with studies highlighting the role of FN in tissue repair and immune response. However, it is important to note that research results are not always consistent, and further clinical trials are needed to more precisely determine the role of fibronectin.