

**THE EFFECT OF CHEMOTHERAPY WITH
FLUODARABINE/MITOXANTRONE/DEXAMETHASONE ON THE
DISTRIBUTION OF SPECTRIN IN LYMPHOCYTES OF
NON-HODGKIN LYMPHOMA PATIENTS**

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The effect of the treatment of non-Hodgkin lymphoma patients with cytostatic regimen FMR (Fludarabine/Mitoxantrone/Dexamethasone) on the distribution of nonerythroid spectrin in peripheral lymphocytes was studied. In addition, the distribution of PKC isoforms θ , β I and β II during this treatment was tested.

We found that both in normal, peripheral, mature lymphocytes and in cells isolated from patients blood before chemotherapy the distribution of spectrin was similar: spectrin epitopes as detected with anti-nonerythroid spectrin antibodies by using immunofluorescence technique were uniformly distributed in the membrane and in the cytoplasm. After one week of FMD therapy the pattern of spectrin fluorescence in patient's cells changed, i.e. spectrin immunofluorescence formed visible membranous aggregates, particularly visible at cell-cell surfaces of aggregated cells. Similar changes were observed when the distribution of PKC θ isoform was analysed. PKC β I and β II did not follow this change.

When lymphoid cells isolated from healthy persons or patients before FMD chemotherapy were extracted with Triton X-100 solution, most of spectrin was present in the supernatant while most of spectrin remained associated with skeletons of cells isolated from blood of patients who underwent the chemotherapy which is agreement with results observed in immunofluorescence experiments.