The Study of Quantitative and Qualitative Alterations of Fatty Acids in Prostate Tumor Tissue

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Objectives: Recently, special attention has been drawn to lipid metabolism alterations during prostate cancer development. Studies show that during prostate cancer unique regulation of lipid synthesis De Novo takes place in cancer cells. This process should be caused by alterations of lipid metabolism, during which cancer cells use new pathways and enzymes to simplify synthesis of fatty acids. These newly synthesized lipids in turn have effect on cellular processes, which play an important role in cancer cell proliferation and survival. The goal of the given research was the study of lipid spectra in tumor tissue of men with benign hyperplasia an adenocarcinoma of prostate.

Results: The research revealed that total lipid levels, as well as phospholipid levels are increased and lipid peroxidation is intensified in tumor tissue of men with prostate adenocarcinoma compared to tumor tissue of men with prostate benign hyperplasia.

Key words: prostate tumors, lipids, fatty acids.