

Aktywność enzymów antyoksydacyjnych i poziom produktów peroksydacji lipidów w przebiegu przewlekłego zapalenia migdałków podniebiennych przed operacją i po operacji

Antioxidants enzymes activity and concentration of lipid peroxidation products in chronic tonsillitis before and after surgery

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Summary

Introduction: Chronic tonsillitis is one of the most often disease in otolaryngological practice. Free radicals release during chronic inflammation process are responsible for tissue destruction. The aim of the study was to estimate the free radicals production and the activity of antioxidative enzymes during chronic tonsillitis before and after surgery. Material and methods: The study was performed in group of 60 patients and 32 healthy persons as a control group. We analyzed the activity of enzymes in blood and serum from the patients before the operation and on 7 day, 4 week and 6 months after the operation. Results: The obtained results shows a lower activity of superoxide dismutase before the operation. After the surgery the activity of the enzyme increased to values observed in control group. The catalase and glutathione peroxidase activity were higher during chronic inflammation, and after the operation the activity decreased, but it was still higher then in control group. Concentration of lipid peroxides products (malondialdehyde) in erythrocytes and serum were higher before the surgery. Then the concentration decreased to values observed in healthy subjects. Conclusions: The measuring and monitoring the activity of antioxidative enzymes and the concentration of lipid peroxidation products (malondialdehyde) could be useful in proper diagnosis of chronic tonsillitis and in adequately early qualification for surgery.