kek. dent. Barbara Maria Dąbrowska

Temat: ***„Ocena wpływu metronidazolu na procesy oksydacyjno-redukcyjne ślinianki podżuchwowej i przyusznej - w badaniach doświadczalnych”***

Summary

The oxidative stress takes part in pathomechanisms of many diseases, including oral mouth diseases. The disharmony between oxidative and antioxidative processes is one of the factors leading to periodontitis, osteitis, or oral mouth cancers. Furthermore many chemotherapeutics for example metronidazol (MTZ), also may cause toxic reactions and have influence on oxidative reactions.

The research focused on MTZ influence probability on oxidative destruction in parotid and submandibular gland's tissue in animal experimental model. Therefore, the concentration of enzymatic and non-enzymatic markers of oxidative stress was measured in those two rats glands in control and experimental group, which was under the metronidazol influence.

The material in research was parotid and submandibular glands of male Wistar rats, which were treated with metronidazole for 7 days, by gastric tube in dose 100 mg/kg b.w. At eighth day the material was taken and frozen in temp. -80°C. Then, the seven parameters enzymatic and non-enzymatic were measured: GPx, TOS, TAS, SOD, LPO, CAT, GSH. The analysis was made in Statistica 10.0.

The metroidazole treatment in experimental model has shown the increase in LPO, TOS, TOS/TAS and the increase in CAT, SOD, GPx and TAS.

The conclusions of this research were:

1. The metronidazole treatment in dose 100 mg/kg b.w. caused disharmony between oxidative and non-oxidative reactions in parotid and submandubular rats glands.
2. The increase in LPO, TOS and TOS/TAS in both glands exposed on metronidazol was shown.
3. The decreased activity of CAT, SOD, GPx, TAS was noticed, what testifies to the weakening of the antioxidative glands protective barrier.