



recovered. Among older children though, this value was within the normal range.

**The conclusion.** Thus, these data suggest the following conclusions.

1) The incidence and rate of susceptibility to infectious lesions of oral cavity depends on the level of amyloclastic power of buccal epithelium.

2) The degree of resistance of the organism depends on the age of

the child, which is probably related to the level of the development of mucous membrane of the oral cavity.

3) The most vulnerable to respiratory diseases were the children of 11-13 years.

4) Determination of amyloclastic power of buccal epithelium may be recommended for wide use in clinical and laboratory practice for the diagnosis of respiratory diseases and an increased tendency towards them.

### **Anmalugsi Pius**

#### **INTERRELATION BETWEEN SEROTONIN CONTENT IN CEREBELLUM AND REGIONS OF EMOTIOGENIC LIMBICOCORTICAL SYSTEM OF BRAIN IN THE SUBMISSIVE AND DOMINANT**

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**Actuality:** Serotonin is believed to contribute significantly to the mechanism of genetically determined individual differences in aggressiveness. In men two forms have been described; impulsive and controlled ( in animals-spontaneous and adaptive respectively ). Impulsive aggression is observed in patients with depression. Submissive rat can serve as an experimental model of depression. Dominant rat demonstrate adaptive aggression. Anatomical and immunohistochemical studies shows that the cerebellum is extensively enervated by serotonergic fibers and they modulate the firing rate of

purkinje cells and cerebella nuclea. Serotonin is critical for cerebella development ans its normal function in the matured state.

**The Aim:** The investigation of correlation between serotonin content in cerebellum and frontal cortex plus hippocampus in submissive and dominant male rats.

**Materials and Methods:** Work was carried out on 24 male rats of the young reproductive period. Distribution of the animals into groups with alternative type of behavior was made using a model of emotion stress "sensory contact" with some modifications. According to results of the testing, the animals



were divided into 3 groups; dominant, balanced and submissive. Serotonin content in brain regions was determined by fluorometric micromethod.

**Results:** According to the results obtained the serotonin level was significantly decreased in all investigated brain regions of rats with submissive behavior type versus both balanced and dominant ones. In dominant animals versus balanced ones, the tendency to the increase in serotonin content was observed. Our results supports the assumption of Neumann I.D et al. (2010) about a different role of serotonin in adaptive form aggression such as social dominance (activation of serotonergic neurotransmission) versus abnormal forms of aggression (reduced serotonergic neurotransmission).

Strong positive correlations were revealed between serotonin content in cerebellum and hippocampus, between serotonin content in cerebellum and frontal cortex in all investigated.

**Conclusion:** The decrease of serotonin content in all investigated brain regions in submissive rats indicates the importance of serotonin deficiency in the formation of submissive behavior type. The same direction of serotonin changes in the hippocampus, frontal cortex and cerebellum, strong correlation between serotonin content in cerebellum and frontal cortex/hippocampus of all behavior type rats is evidence of cerebellum involvement in the formation of realization of submissive and dominant behavior types.

**Avilova O.V.**

**METASTRUCTURE OF THE SPLEEN UNDER THE IMPACT OF TRYGLYCIDYL ETHER OF POLYOXYPROPYLENE TRIOL**

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**Actuality.** The polyethers, as widely used xenobiotics not only in manufacture but in everyday life, have huge influence on human's organism, that dictates the need for thorough study of the impact of this chemicals on the spleen metastructure.

**The aim** of the study was to investigate the structural features of the spleen of rats under the impact of tryglycidyl ether of polyoxypropylene triol, that is related to the class of polyethers.

**Materials and methods:** The morphological study was performed