**EFFECT OF PROLACTIN ON INTRACRANIAL HYPERTENSION**

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Purpose: To evaluate effect of hyperprolactinemia on characteristics of cerebrospinal fluid flow by data of phase contrast MRI.
Method and Materials: Ten patients with hyperprolactinemia (8 females, 2 males) underwent routine MR imaging and CSF velocity MR (phase-contrast MRI). This method allows to visualize the CSF flow without contrast enhancement. Average prolactin level for females (within the follicular phase of the menstrual cycle) is 1250 mkME/ml, for males – 800 mkME/ml. 5 patients appeared to have pituitary microadenomas, without ventricular system compression. Were observed velocity value of CSF flow on interventricular foramina, cerebral aqueduct, foramen magnum levels. The calculated mean velocities, mean flux of CSF were compared with control group (60 healthy volunteers).
Results: Analysis of differences between respective mean values of CSF flow has shown that CSF flow characteristics in patients with hyperprolactinemia had significantly lower values of mean velocity and mean flux, than in the group of healthy volunteers at the level of foramen magnum. Mean flux is 2 times lower, mean velocity indicators are 5 times lower.
Conclusion: in patients with moderate hyperprolactinemia, the rate of CSF flow is significantly reduced on foramen magnum level (with structural brain lesions absence), which is an indirect evidence of reduced outflow and CSF volume expansion. The moderate hyperprolactinemia leads to the idiopathic intracranial hypertension development and demonstrates the osmoregulation effect of prolactin at the level of intracranial pressure.