and residue locations were constructed for each center. Differences between these brain maps were analyzed to explore patient selection and treatment variation.

RESULTS: The study cohort consisted of 268 patients who received neurosurgery; 99 were treated by one care team, 169 by the other. Biopsies were performed in 88 patients and resective surgery in 180. The tumor localization maps confirmed established preferential locations of glioblastoma. A significant histological similarity was noted as the patient populations of the care teams differed in tumor distribution, which may indicate differential patient referral, selection or recruitment. For patients who had resective surgery, the resection probability maps demonstrated significant differences in resected regions in the anterior internal capsule and the caudate nucleus, which may indicate treatment variation. Several arguments for these differences were considered by the care teams. Further analysis will explore whether these variations are associated with differential functional outcome or survival.

CONCLUSION: Brain maps of tumor localization convey important information about the slow growth of these tumors, from which patients with this lesions remain clinically asymptomatic, until they reach significant size, which makes surgical removal technically difficult. The aim of the current study was to identify patterns of results of surgical treatment of patients with third ventricle tumors, depending on the lesion location and its degree of differentiation.

MATERIAL AND METHODS: A retrospective analysis of 45 consecutive surgical interventions on third ventricle tumors that were treated at the Uzhhorod Regional Clinical Center of Neurosurgery and Neurology in the period from January 2006 to January 2016. Localization of tumors was as follows: pure third ventricle tumors - 17 (38%), other regions tumors extension with involvement of the third ventricle - 28 (62%). Tumor removal was performed in 41 cases, in other 4 cases ventriculo-peritoneal shunting was the only procedure. We used the following surgical approaches: transcallosal (17) - tumors of the anterior third of the third ventricle, peritralional (14) and two-staged transcallosal - peritralional approach (7) - sellar-parasellar region tumors with extension to third ventricle, subfrontal (1), suprachiasmal - infratentorial (1), interhemispheric transcocchlear (1). Histological structure of the tumors: craniopharingioma - 13 (33%), astrocytoma - 9 (23%), colloid cyst - 6 (16%), pituitary adenoma - 4 (11%), ependymoma - 2 (5%), chordoid plexus papilloma - 1 (2%), teratoma - 1 (2%), central neurocytoma - 1 (2%), choroid plexus papilloma of the third ventricle - 1 (2%), ependymal glioblastoma - 1 (2%), pituicytoma - 1 (2%). The degree of tumors differentiation: grade I-II - 34 (83%), grade III - 7 (17%).

RESULTS: According to the data the most frequent histological type among pure third ventricle tumors - colloid cyst (30%), among tumors with extension to the third ventricle - craniopharingioma (46%). The total tumor removal was achieved in 18 patients, of whom in 95% the degree of tumor differentiation was grade I-II. Postoperative mortality was 7%, of which 2 (80%) - with the grade III-IV differentiation. The results of treatment were assessed according to Karnofsky scale: more than 60 points - 89% patients.

CONCLUSIONS: Acceptable results of surgical treatment third ventricle tumors are in direct dependence from the tumor histological structure. The most unfavorable factor is low degree of tumor differentiation.