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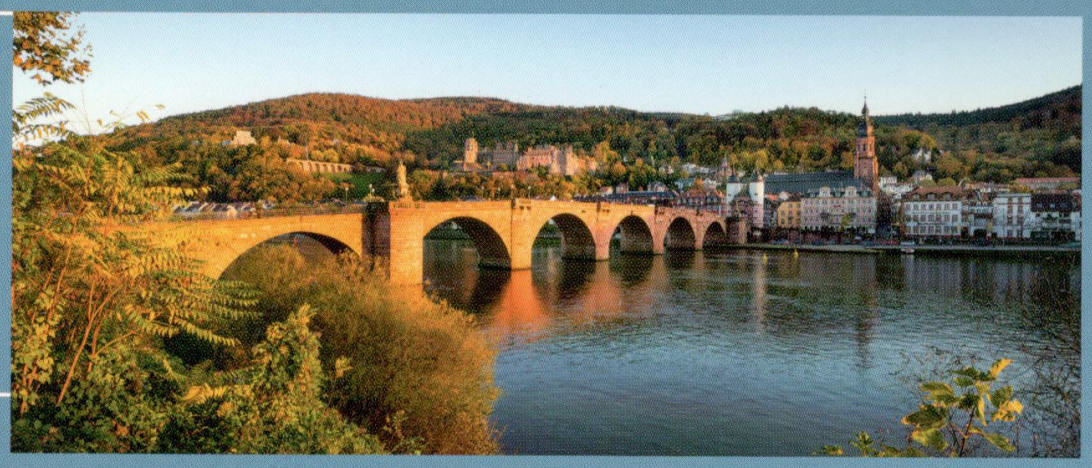

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and residue locations were constructed for each center. Differences between these brain maps were analyzed to explore patient selection and treatment variation.

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 dissimilarity 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 that can be used to compare neurosurgical centers in terms of patient selection. In addition, dissimilar resection probability maps may indicate treatment variations. This novel volumetric approach can provide objective arguments for discussions between care teams on the quality of neurosurgical care for patients with a glioblastoma.

P18.03 THIRD VENTRICLE TUMORS: SURGICAL TREATMENT

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BACKGROUND: A variety of tumors can occur in the third ventricle. Despite the fact that some of these tumors are aggressive high grade lesions, most of them are histologically benign and potenially curable after surgical resection. Considering the slow growth of this tumors, for a long time, 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. Localisation of tumors was as follows: pure third ventricle tumors - 17 (38%), other regions tumors extension with involvment 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, pterional (14) and two-staged transcallosal - pterional approach (7) - sellar-parasellar region tumors with extension to third ventricle, subfrontal (1), supracerebellar infratentorial (1), interhemispheric transoccipital (1). Histological structure of the tumors: craniopharingioma -13 (33%), astrocytoma - 9 (23%), colloid cyst - 6 (16%), pituitary adenoma - 4 (11%), ependymoma - 2 (5%), choroid plexus papilloma - 1 (2%), teratoma - 1 (2%), central neurocytoma - 1 (2%), chordoid glioma of the third ventricle - 1 (2%) oligodendroglioma - 1 (2%), pineoblastoma - 1 (2%). The degree of tumors differentiaton: grade I-II - 34 (83%), grade III-IV - 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.

P18.04 EXPERIENCE OF ENDOSCOPIC TRANSSPHENOIDAL SURGERY FOR PITUITARY ADENOMA

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Transsphenoidal approach has been widely applied in surgical treatment of pituitary adenoma. Based on the traditional microscopic surgery, endoscopic technique has been developed as a promising alternative in recent years. Our group have been applying endoscopic transsphenoidal surgery for almost 10 years. Hereby we report our experience in this new surgical technique. From December 2006 to February 2016, 426 surgeries were performed, and 378 patients (non-functional: 192, PRL-secreting: 56, GH-secreting: 88, ACTH-secreting: 24, TSH-secreting: 3, multiple-hormone-secreting: 15) were surgically treated. Among the 378 patients, 42 were treated twice and 3 patients were treated three times following diagnosis of recurrence. The tumor's subtypes in recurrent cases were identical to those in previous surgery(s). In all the surgeries, a unilateral and purely endonasal approach was applied with a 30° rigid endoscope. The mucosa between the sphenoid sinus' opening and the base of septum nasi osseum was incised and pushed laterally and downward. Then the anterior wall of sphenoid sinus and the sellar floor were opened with a high-speed burr. In the cases with conchal type sphenoid sinus, X-ray imaging was used. After opening the sellar floor dura and exposing the tumor, the tumor was removed in a backward to lateral to consequence. Finally, hemostatic gauze, gelatin sponge, artificial dura, and in some cases mucosa from the anterior wall of sphenoid sinus, were used for sellar floor reconstruction. According to MRI follow-ups 3 months after the surgery, total resection was achieved in 328 surgeries (77.0%), subtotal resection in 86 surgeries (20.2%), and partial resection in 12 surgeries (2.8%). Cases with subtotal or partial resections were subsequently treated with radiotherapy or craniotomy. 184 (91.5%) of 201 cases with visual field deficit obtained visual remission after the surgery. Hormonal remission was achieved in 50 cases with PRL-secreting tumor (80.0%), 89 cases with GH-secreting tumor (88.1%), 19 cases with ACTH secreting tumor (70.4%), and 3 cases (100%) with TSH-secreting tumor. The most prevalent complications include diabetes insipidus (33.6%), CSF leackage (22.6%), meningitis (4.9%), and hypopituitarism (4.7%). In conclusion, the efficacy and safety of endoscopic transsphenoidal approach observed in our practice is comparable to those of the same technique in literature, and this technique is superior to traditional microscopic approach reported in most references.

P19 NEW DEVELOPMENTS IN RADIOTHERAPY

P19.01 IS REDUCED DOSE CRANIOSPINAL RADIATION SAFE IN ADULT MEDULLOBLASTOMA?

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Medulloblastomas is an orphan disease in adults. Standard treatment of completely removed localised adult medulloblastoma includes a craniospinal, irradiation with 36 Gy to axis and 54 Gy to whole posterior fossa. Pediatric randomized study demonstrated that a decreased dose of 24 Gy to axis with 54 Gy limited to tumoral bed gives similar result as standard therapy, provided chemotherapy is associated. May this pediatric experience be extended to adult population?

MATERIAL: we retrospectively collected data of all adult patients with standard risk medulloblastoma treated with chemotherapy + reduced dose craniospinal irradiation (24 Gy to axis+ boost up to 54 Gy to tumoral bed) issued from 4 institutions.

RESULTS: 34 patients received various chemotherapies: 8 drug in 1 day (2 courses before and after RT in 3 patients) VP 16 CARBOPLATINE (2 courses before and after RT in 14 patients) or CCNU-Cisplatin-Vincristin (8 courses after RT in 17 patients), with reduced dose craniospinal irradiation.

With a median follow up of 58 months, the 5 and 10 years PFS was respectively 85+/-8% and 75+/-12%. The 5 and 10 year overall survival was 94+/-6 and 79+/-11% respectively. Four patients relapsed, 3 locally, and one locally and in CSF. Median progression time were 53 months.

CONCLUSION: These results compare favorably with those of the HIT protocol (73% 5-year PFS) using standard dose of radiation to axis {Friedrich, Eur J Cancer 2013}.Thus chemotherapy with reduced dose of CSI is feasible in adult medulloblastoma with standard risk. This may serve as a basis for future randomized trials.

P19.02 CLINICAL AND RADIOLOGICAL LONG TERM OUTCOME OF ACOUSTIC NEUROMAS (KOOS GRADE I - IV) AFTER STEREOTACTIC RADIOSURGERY

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INTRODUCTION: In the management of acoustic neuroma (AN) stereotactic radiosurgery (SRS) has evolved as widely accepted treatment option for small-sized tumors (Koos I and II). For larger AN (Koos III and IV) microsurgery is treatment of choice. However, for patients not suitable for