ANALYSIS OF THE CLINICAL FEATURES AND COURSE OF SEIZURES IN PATIENTS WITH BRAIN TUMORS

***Sh.B.Gafurov**

Tashkent Institute of Postgraduate Medical Education;

Republican Scientific Center of Neurosurgery, Tashkent, Uzbekistan

Abstract. Verify material of 125 patients with brain tumors and associated convulsions assessed the frequency and characteristics of existing epileptic seizures. It is found that convulsions complicate the disease more often in tumors of low-grade and left hemisphere localization. Simple partial paroxysms more characterize to right-hemisphere, and the complex - to left-hemispheric localization. The clinic of brain tumor begins with a convulsion often in surface localization process.

Epilepsy is a serious disease of the central nervous system, often resulting in profound disability of patients. According to WHO, the prevalence of epilepsy reaches 0.7-1.2% of the population in developed countries [3, 4, 7]. This indicates a high medical and social significance of the problem and actuality of searching for methods for early diagnosis of the disease and effective ways of its treatment [1, 5].

In the clinical picture of brain tumors convulsions are the first and only symptoms of the disease in more than one third of observations [2, 4, 5, 6, 7]. Often an epileptic seizure manifests not in classic epileptic attacks or sensory impairments, but in psychopathological changes. It makes it quite difficult to diagnose and treat the disease in such cases [4].

Despite the large amount of research on symptomatic epilepsy, only a few papers describe correlation of psychopathological structure of attacks with an affected side, and the tumor localization [1, 2, 3, 4]. Herewith, questions about the dependence of the structure and the frequency of attacks on the profile of functional asymmetry have not been completely solved [1, 2, 3].

Methods and results. At the Republican Scientific Center of Neurosurgery 125 patients who had surgery because of tumors in the cerebral hemispheres were examined during 2011-2012 years. In the profile of functional asymmetry among the studied patients righties dominat-

ed - 95 (76%), signs of left-handedness were detected in 19 (15.5%), left-handers were 4 patients (2.5%). Profile of functional asymmetry was not installed in the remaining 7 patients (6%).

More than half of these patients had meningioma - 50 patients (40%) and astrocytoma - 25 patients (20%) confirmed histologically. Glioblastoma was in 24 patients (18%) sarcomas in 13 patients (11%). Histology was not performed (at the time of the study) in 13 patients (11%).

Tumor was determined in the left hemisphere of the brain in 67 patients (54%), in the right hemisphere - in 58 (46%) patients. The debut of the disease with epileptic seizures was diagnosed in 98 patients (78.5%), in 92 of them it was the only manifestation of the growing tumor of the brain.

Special attention was paid to mental sphere changes and its characterization in patients with tumors of the cerebral hemispheres and symptomatic epilepsy. When considering the dependence of the seizure structure versus intrahemispheric localization of tumors and lesion side in right-handed patients the following patterns were revealed.

On the basis of studied material it was confirmed that for the right-handers who had tumors in left hemisphere it was more likely to have generalized seizures, complex partial seizures and verbal attacks with ideational paroxysms. In patients with tumors of the right

hemisphere affective and psychosensory attacks were more frequent.

The difference in going out of seizures in patients with left and right hemisphere tumors was determined. Patients with right-brain tumors came to a clear mind and could remain active almost immediately after the attack while the left-side patients remained entangled and disoriented and have not known what had happened to them.

Analysis of patients' individual characteristics and their impact on seizures has helped to determine that seizures occurred 2 times oftener in patients younger than 40 years who had signs of left-handedness. Patients with left-handedness have been described as group with more frequent mental paroxysms and polymorphism of seizures. Disorders of speech and gnosis in left-handers have not been so expressed and have not reached the degree of aphasia, agnosia, having a different structure.

Epileptic personality changes among patients suffering from epilepsy for more than one year have been detected in 11 patients.

As a rule, these were the patients with slow-growing tumors: astrocytomas and oligodendrogliomas - 9 patients and anaplastic gliomas in

2 patients. Epileptic personality traits developed more often in patients with the left hemisphere lesions (19%) than the in right (7%).

CONCLUSIONS

1. Tumor malignancy degree is the leading factor in determining the frequency of seizures in patients with tumors of the cerebral hemispheres: seizures developed more frequently in patients with malignancy low-grade gliomas - (85%) and anaplastic forms (76%), much less - in patients with glioblastomas (34%).

2. Side of the lesion determines the structure of psychic attacks: a) For right-handers with hemispheric brain lesions affective psychosensory (derealization, depersonalization, visual and olfactory hallucinations) seizures are inherent b) while for the left hemisphere - seizures that occur with impaired consciousness (complex partial seizures, ambulatory automatism) ideatory and verbal paroxysms.

3. Epileptic seizures are 2 times more likely to occur in patients younger than 40 years and patients with signs of left-handedness.

4. For patients with left-handedness more frequent development of psychosensory and psychomotor seizures, and its polymorphism is inherent.

LITERATURE

1. Bragina N.N. Dobrokhotova T.A. The functional asymmetry of the human. - Moscow: Medicine - 1981. - 287 p.
2. Dobrokhotova T.A., Urakov S.V., Chebysheva T.A. Mental disorders in tumors of the cerebral hemispheres. // In: Neuropsychiatry. - Moscow. - "Binom" Publishing. - 2006. - P.107-131p.
3. Teterkina T.I., Dobrokhotova T.A., Oleshkevich F.V., Fedoulov A.S./ Epilepsy and functional asymmetry of the brain. - Minsk. - 1993. - 129 p.
4. Elisevich K., Epilepsy and Low-Grade Gliomas. //

- In the book Rock JP et al., The Practical Management of Low-Grade Primary Brain Tumors. - Chapter 10. - 1999. - 149-169.
5. Engel J.Jr. Alternative therapy. In: Engel J.Jr. (ed) Seizures and epilepsy. FA Davis, Philadelphia. - 1990. - Pp. 443-474
 6. Olivier A, Lacerte D Epilepsy and benign gliomas. In: Apuzzo MLJ (ed) Low-grade glioma. // AANS, New-York. - 1995. - Pp 347-379.
 7. Rasmussen T, Blundell J: Epilepsy and brain tumor. // ClinNeurosurg. - 1961. - Pp 7

РЕЗЮМЕ

АНАЛИЗ ОСОБЕННОСТЕЙ КЛИНИКИ И ТЕЧЕНИЯ СУДОРОЖНОГО СИНДРОМА У БОЛЬНЫХ С ОПУХОЛЯМИ ГОЛОВНОГО МОЗГА

Ш.Б.Гафуров

*Ташкентский институт усовершенствования врачей, Ташкент, Узбекистан;
Республиканский научный центр нейрохирургии, Ташкент, Узбекистан*

На верифицированном материале 125 больных с опухолями мозга и сопутствующим судорожным синдромом проанализированы частота и характеристики имеющихся эпилептических приступов. Установлено, что эпилептические приступы осложняют течение заболевания чаще при опухолях низкой степени злокачественности и левополушарной локализации. Простые парциальные пароксизмы более характерны для правополушарной, а комплексные - левополушарной локализации. Клиника опухоли мозга начинается с эпилептических приступов чаще при поверхностной локализации процесса.

XÜLASƏ

BAŞ BEYNİN ŞİŞLƏRİ OLAN XƏSTƏLİ QICOLMA SİNDROMUNUN KLİNİKA VƏ GEDİŞİNİN XÜSUSİYYƏTLƏRİNİN ANALİZİ

Ş.B.Qafurov

*Daşkənt həkimləri təkmilləşdirmə institutu, Daşkənt, Özbəkistan;
Respublika elmi neyrocərrahiyyə mərkəzi, Daşkənt, Özbəkistan*

Baş beynin şişi olan və qıcolma sindromu ilə müşayiət edilən 125 xəstədə epileptik tutmaların tezliyi və xarakteristikası araşdırılmışdır. Təyin edilmişdir ki, epileptik tutmalar bədxassəliyi aşağı səviyyədə olan və sol beynin yarımkürəsində lokalizasiya olunan şişlər zamanı xəstəliyin gedişini ağırlaşdırır. Sadə parsial paroksizmlər sağ beynin yarımkürəsində lokalizasiya olunan şişlərə, kompleks parsial tutmalar isə sol yarımkürədə lokalizasiya olunan şişlərə daha çox xarakterdir. Baş beynin şişlərinin klinikası daha çox prosessin səthi lokalizasiyaları zamanı epileptik tutmalarla başlayır.

Redaksiyaya daxil olub: 11.04.2013

Zəpa tövsiyə olunub: 28.04.2013

Rəyçi: R.L.Həsənov, t.e.d.