Features of the clinical course of migraine strokes

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Abstract

Migraine often causes strokes among patients under 50 years of age in 1 to 17% of cases, and repetitive migraine paroxysms lead not only to chronic migraine but also to vascular complications of the brain. The aim of the study was to study the clinical and hemodynamic features of migraine strokes. The study examined 52 (61.9%) with migraine strokes. Clinical-neurological studies, EEG and TCDSs of brain vessels were carried out, the coma scales of Glazko, Scandinavian and American (NIHSS) were used. Patients with migraine stroke were observed to have a severe condition with a sudden and rapid clinical course, acute onset against the background of regular migraine attacks, due to the typical vascular type, caused by dystonia of the brain vessels. According to the results of the survey, despite the fact that migraine strokes have different etiopathogenetic factors with non-migraine strokes, they lead to the formation of a similar pathological ischemic focus in the brain with all its neurological manifestations and complications, which ultimately require close attention, differentiated approach and timely correction.

Keywords: Migraine stroke, Glazko coma scale, Scandinavian and American (NIHSS) scales.

Introduction

Migraine is interesting with frequent attacks cause not only chronic headache but also vascular complications of the brain (Brennan K.C.et al., 2010; Kapinos G. et al., 2010). Diagnoses of “mute heart attack”, “iatrogenic stroke”, “small stroke”, “cryptogenic stroke”, and “stroke of unknown etiology”, which are often the result of severe migraine crises resulting in “mute” subcortical heart attacks and persistent leukoencephalopathy, are not uncommon in practitioners' diagnoses. According to some authors, stroke was associated with migraine among patients under 50 years of age from 1 to 17% of stroke cases (Arboix A. et al., 2003;Belvís R. et al., 2005) [1]. In another prospective analysis conducted in Switzerland in 2001 among of ischemic strokes, 3.7% were identified as migraines, which during 10 years suffered with a frequency migraine at least 1 attack in 2 months. The age analysis showed that in persons under 45 years migraine associated with a stroke was found to be up to 15.8% compared to 2.1% in the control group (Coppola G. et al., 2007; Kapinos G. et al. 2010; Ayzenberg I. et al., 2014) [2].

Based on the above, the purpose of survey was to study the clinical and hemodynamic features of migraine strokes.

Material and Methods of Research

The study included 52 (61.9%) patients with migraine strokes. The state of consciousness and the degree of neurological deficits were determined according to the coma scales of Glazko, Scandinavian and American (NIHSS), EEG and TCDSs of brain vessels were carried out.

Research results

Copper In migraine stroke young people predominated almost 6 times than middle age (P<0.001) and there were no elderly patients. Patients with migraine strokes suffered from different variants of the clinical course of migraine. Thus, in 28 (53.9%) of patients, migraine stroke developed against the background of chronic migraine paroxysms; in 16 (30.8%) of patients it developed on the background of migraine status, and in 8 (15.4%) it was formed on the background of migraine attack in uncomplicated migraine.

According to the results of Scandinavian, American (NIHSS) and Glazko's coma scales in case of migraine stroke revealed 46 (88.5%) severe and 6 (11.5%) patients in the state of moderate severity, no lethal outcomes were observed at the time of the examination [3].

The average clinical score on admission in patients with migraine stroke was 29.4±6.3 on the Scandinavian scale

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and 16.6±5.2 on the NIHSS scale, which in both cases corresponded to a severe clinical degree. Clinical course of migraine stroke by age category was considered on the example of Table 1.

Table 1. Clinical course of migraine stroke by age group.

Age	Illness duration	Stroke duration (day)	Bright gaps (day)	Convulsions (%)	Frequency (3 months)	Aura (%)
Baby	1,3 ± 1,6	5,5 ± 3,2	-	1,9 ± 1,9	6,2 ± 3,3	100,0
Young	7,4 ± 3,4	7,9 ± 7,4	3,4 ± 2,5	-	7,1 ± 3,6	53,9
Average	8,7 ± 3,8	5,7 ± 3,2	-	-	6,4 ± 3,4	17,3

In a fully preserved consciousness with adequate reactions to surrounding events 43 (82.7%) patients came in. Violation of consciousness of different degree of severity was noted in 9 (17.3%) patients surveyed. Of them, according to the assessment of the degree of unconsciousness disturbance according to the Glasgow coma scale, 6 (11.5%) patients showed stunnedness - unconsciousness disturbance in case of some verbal contact with higher threshold of perception of external stimuli. In three (5.8%) patients, the consciousness was turned off with coordinated reactions preserved and the eyes opened for elementary verbal contact, i.e. the sopor. The migraine stroke with “migraine with aura" was detected in 47 (90.4%) patients. Of these, sensory aura was observed in 12 (23.1%) and visual aura in 35 (67.3%) cases, the aura lasted longer than usual, up to 45-60 minutes. The age category of aura is shown in Table 1, where there was a worsening of the disease flow, consciousness, psycho-emotional status and discomfort in the head region, the clinic of headache was heavier than usual, and as can be seen from the table, the younger the patients were, the more often the aura was observed. The consciousness of the enrolled children was preserved, the general condition was severe, in the history of frequent migraine attacks lasting an average of 132.0 hours (up to 5.5±3.2 days), both children had an aura lasting up to 60 minutes, visual character, one child (1.9%) had seizures, against the background of hemicrania and focal neurological symptoms. All patients with migraine stroke were subject to inpatient treatment, therapy was carried out in the intensive neurology department. After 10-15 minutes after the beginning of the stereotype aura, both 3.9% of children started hemicrania, while the aura continued [4]. At a young age, the character of headaches at the beginning of attacks turned out to be pulsating, and after a while, they held on as a squeezing-pressure. In 28 (53.9%) young patients’ migraine attacks debuted with prolonged aura for more than 60 minutes. Nine (17.3%) patients had periods of light intervals between headaches, and 29 (55.8%) did not have them at all. In middle age, the headache was diffuse, accompanied by heaviness and blurriness in the head, and patients answered questions with some delay. From the analysis data, it follows that migraine, regardless of its course options-migraine status, chronic migraine and uncomplicated forms have a high probability of developing into an acute violation of cerebral circulation, against the background of migraine paroxysms.

12 (23.1%) patients with migraine stroke on the background of headaches, nausea and vomiting was observed the emergence of a system of dizziness, which was characterized by heavy state, and also attended fear the slightest movement due to possible deterioration. In 14 (26.9%) patients, the feeling of phonophobia and photophobia, along with vomiting, caused fear of death, anxiety, anxiety and depression, so patients asked medical professionals not to leave them during the procedures. This phobia continued for a long time, even when patients were discharged home.

Thus, patients with migraine stroke were observed to have a severe condition with a sudden and rapid clinical course, acute onset against the background of regular migraine attacks, due to the typical type of vascular reaction in migraine, caused by dystonia of the brain vessels.

According to the study, 3 (5.8%) patients with migraine stroke on the MIDAS scale showed a first-degree decrease in performance, which was proportional to the state of minimal migraine severity. Based on the results of the pain scales, it was determined that at the I minimum degree of migraine headache was expressed as low intensity/minor pain on the VRS scale, 1 - 3 linear gradation on the NRS scale, no pain on the VAS scale, 1 - 2 points on the facial scale (FPS).In 9 (17,3%) patients we observed II, mild degree of migraine severity. At the same time, the headache was diagnosed as moderately severe on the VRS scale, on the NRS scale it was equal to 4 - 6 linear gradations, there was no pain on the VAS scale, and on the FPS facial scale - 3 points, and performance was reduced to a slight degree. In 28 (53.9%) examined a moderate degree III of migraine severity was noted, with headaches characterized by strong VRS intensity, linear NRS gradation of 7-10, severe VAS headaches, and 4 FPS facial scale scores, performance was rated as a moderate decrease. Twelve (23.1%) patients had a severe IV degree of migraine severity, with a severe headache on the VRS scale, 7-10 linear gradations on the NRS scale, a severe headache on the VAS scale, and 5 points on the facial pain scale of the FPS, with daily activity (performance) assessed as severe. Based on clinical symptoms in 33 (63.5%) patients with migraine stroke were found depressive condition [5].

By analyzed we found that among the severity of depression

in migraine stroke the average degree was higher than 8 times the mild degree (P<0,001) and 4 times the severe degree (P<0.05). In age-related analysis, depression in all degrees of severity was more common in young (P<0.001). Patients with depressive disorders had frequent migraine paroxysms, worsening pain syndrome intensity and lengthening of seizures, which aggravated the clinical course of the disease and the period of recovery of lost functions [6]. Depression in 14 (43.8%) patients, mostly middle-aged, with reduced emotional background, slower thinking, motor retardation, reduced self-esteem and loss of interest in surrounding events, were found to be 1.5 times less than in migraine strokes (p<0.01). Mild depression was 3.7 times (p<0.05) more common in 4 (33.3%) subjects, but the number of moderate depression had no statistical difference with migraine stroke in 8 (66.7%) patients.

Phonophobia, photophobia, nausea, and prolonged intense headaches became the cause of anxiety. Thus, according to the HAM-A 38 (73.1%) patients showed anxiety of varying severity.

As can be seen from the table, anxiety, symptomatic and anxiety prevailed in migraine strokes, while frequent anxiety and a state of severe anxiety (p<0.001) prevailed in young adults and symptomatic anxiety prevailed in middle-aged patients (p<0.05) [7].

Thus, both considered pathologies having different etiopathogenetic factors of the disease development lead to the formation of the same pathological link, i.e. the zone of the ischemic focus of the brain with all its manifestations and complications, which ultimately require close attention, differentiated approach and timely correction.

Conclusion

Migraine paroxysms, being the main cause of development of pathophysiological mechanism of vascular conflict formation, lead to damage of psycho-emotional background, causing psychopathological state, by type of depression and anxiety, which is fraught with prolongation of morbidity period.

The choice of preventive and restorative therapy of migraine strokes should be directed towards the elimination of cause-effect factors of the disease, because only in this case it is possible to mediate persistent, prolonged manifestations of the disease in the form of motor, sensitive, psychopathological, cognitive and vegetative disorders.

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References

1. Brennan KC, Charles A. An update on the blood vessel in migraine. Curr Opin Neurol. 2010; 23: 266–74. [PubMed]
2. Kapinos G, Fischbein NJ, Zacharchuk G. Maigraine-like Headchae with Visual Deficit and Perfusion Abnormality on MRI. Neurology. 2010; 1743-45.
3. Yevtushenko SK, Yevtushenko IS, Savchenko EA, et al. Migren and lacunar strokes as a basic manifestation of cerebral autosomal dominant arteriopathy with subcortical heart attacks and leukoencephalopathy (CADASIL “syndrome). J Neurol Sci. 2011; 8: 125¬129.
4. Arboix A, Massons J, Garcia¬Eroles L, Oliveres M, et al. Migrainous cerebral infarction in the Sagrat Cor Hospital of Barcelona stroke registry. Cephalalgia. 2003; 23: 389 – 394.
5. Belvís R, Ramos R, Villa C, Segura C, et al. Brain apparent water diffusion coefficient magnetic resonance image during a prolonged visual aura. Headache. 2010; 50: 1045 – 9.
6. Coppola G, Pierelli F, Schoenen J. Is the cerebral cortex hyperexcitable or hyperresponsive in migraine? Cephalalgia. 2007; 11: 1427 – 39.
7. Ayzenberg I, Katsarava Z, Sborowski A. Headache-attributed burden and its impact on productivity and quality of life in Russia: structured healthcare for headache is urgently needed. Eur J Neurol. 2014; 15 (Suppl 1).