BRITISH MEDICAL JOURNAL

British Medical Journal

Volume 2, No.3, June 2022

Internet address: http://ejournals.id/index.php/bmj
E-mail: info@ejournals.id
Published by British Medical Journal
Issued Bimonthly
3 knoll drive. London. N14 5LU United Kingdom
+44 7542 987055

Requirements for the authors.

The manuscript authors must provide reliable results of the work done, as well as anobjective judgment on the significance of the study. The data underlying the work shouldbe presented accurately, without errors. The work should contain enough details andbibliographic references for possible reproduction. False or knowingly erroneous statementsare perceived as unethical behavior and unacceptable.

Authors should make sure that the original work is submitted and, if other authors'works or claims are used, provide appropriate bibliographic references or citations. Plagiarismcan exist in many forms - from representing someone else's work as copyright to copying orparaphrasing significant parts of another's work without attribution, as well as claimingone's rights to the results of another's research. Plagiarism in all forms constitutes unethicalacts and is unacceptable. Responsibility for plagiarism is entirely on the shoulders of theauthors.

Significant errors in published works. If the author detects significant errors or inaccuraciesin the publication, the author must inform the editor of the journal or the publisher aboutthis and interact with them in order to remove the publication as soon as possible or correcterrors. If the editor or publisher has received information from a third party that thepublication contains significant errors, the author must withdraw the work or correct theerrors as soon as possible.

CHIEF EDITOR

Dr. Fiona Egea

EDITORIAL BOARD

CLINICAL AND NEUROLOGICAL INDICATORS IN ACUTE ISCHEMIC STROKES IN MIDDLE-AGED PEOPLE

Vakhabova Nargiza
Tashkent Medical Academy, Uzbekistan
nargiza.vakhabova@gmail.com

Abstract. The results of a thorough study of the representation of cerebral and neurological symptoms in acute cerebral circulation disorders in general and depending on age are discussed, with an emphasis on middle age, because in recent years there has been a clear trend of stroke rejuvenation. Finding out the variability and severity of neurological deficits will allow the doctor to choose the most effective therapy and return to society and to the work of middle-aged people, the most highly skilled worker.

In recent years, more and more attention has been paid in domestic and foreign literature to cerebrovascular diseases, due to an increase in their prevalence, high disability and mortality of patients (M.M. and N.M., A.A.Skoromets, V.V.Kovalchuk, 2008; B.S.Vilensky, 2012; Gusev, V.I.Skvortsova, 2011; Z.A. Suslina, 2012, M.M.Asadullaev 2012, N.M.Vakhabova 2019). Epidemiological studies of recent years indicate that acute ischemic disorders of cerebral circulation continue to dominate the structure of vascular lesions of the brain. However, a detailed study in the age-sex aspect by numerous researchers indicates a general rejuvenation of stroke compared to the previous 20-25 years (N.M.Vakhabova, M.M.Asadullaev, 2020).

Of course, ischemic stroke (AI) is characterized by damage to various structures of the brain substance with the further formation of a number of neurological symptoms, most often paralysis and paresis in the extremities, cerebellar symptoms in the form of static and dynamic ataxia, as well as coordination disorders, memory, thinking, concentration and motor or sensory, in some cases total aphasia. Depending on the representation and severity of focal neurological symptoms, the focus of ischemia and, accordingly, the pool of the damaged cerebral vessel are determined. Whether there are any variations of them depending on age in the existing literature is presented very sparsely and in some issues is contradictory. In connection with the above, we set a goal to study the representation of various clinical syndromes and the severity of focal neurological symptoms in middle-aged ischemic type of AMI.

Materials and methods

Research material: this scientific article is devoted to the study of the results of the study of 140 patients with acute ischemic stroke who were in the intensive neurology department of the 1st TMA clinic. The age of the patients ranged from 44 to 85 years, which were divided into 3 subgroups. 1gr.basic (middle age)-from 44 to 59, comparative groups-2 gr. (elderly) from 60 to 74 and 3 gr. (senile) from 75 to 85 years. According to the observations of all examined patients at admission in the acute stage of ischemic stroke, cerebral disorders prevailed in 80.9% (140 patients) in the form of dizziness, headaches, disorders of consciousness of varying severity against the background of focal neurological clinical symptoms, depending on the localization of the ischemic process and the basin of the damaged cerebral vessel. Thus, gross motor disorders in the form of hemiparesis and hemiplegiawere observed in 113 (65.3%); speech disorders in 59.5% of cases (103 patients). Cerebellar symptoms were also recorded in the form of intention in the palcenosal test, ataxia in the heel-knee test (in 81.5%, -141 patients); Sensitive disorders were detected in 88 (50.9%) and pathological foot signs in 115

(66.5:) of the patients examined by us. The study of the frequency of detection of neurological symptoms depending on age in the three examined groups revealed a number of noteworthy points. Depending on the age; we have established distinctive features in the frequency of occurrence of neurological disorders (Table 2).

Table 1
The frequency of the main cerebral symptoms and neurological syndromes in AI, depending on the age of patients

Neurological symptoms	44-59 year		60-74 year		75-90 year		all	
	N	%	n	%	n	%	N	%
Hemiparesis	20	33,9	73	78,5*	20	95,2 *	113	65, 3
Speech disorders	25	42,4	60	64,5	18	85,7	103	59, 5
Stem disorders	0	0,0	13	14,0*	11	52,4	24	13, 9
Cerebellar symptoms	41	69,5	81	87,1	19	90,5	141	81, 5
Brain disorders	39	66,1	81	87,1	20	95,2	140	80, 9
Sensitive violations	10	16,9	58	62,4*	20	95,2 *	88	50, 9
Pathological stop signs	26	44,1	70	75,3	19	90,5 *	115	66, 5

As shown in the table, general cerebral symptoms were detected in 39 (66.1% of cases in the main, i.e. in the middle-aged group), in 81 (87.1%) in the elderly and 120 (95.2%) in the senile group. Consequently, cerebral symptoms prevailed in the frequency of detection in older age groups, in middle-aged people they were also present, but noticeably less pronounced. As can be seen from the presented data, in patients of middle age, the course of AI is milder than in elderly and senile patients. Thus, pyramidal insufficiency in the form of hemiparesis and hemiplegia in middle age was

registered in 33.9% of cases, in the elderly in 78.5%, and in the senile in 95.2%, i.e., with increasing age, there was a statistically significant increase in the severity of focal neurological symptoms in the form of gross motor disorders, indicating the severity of stroke. The same trend was observed in the frequency of formation of disorders of higher cortical functions in the form of motor and sensory aphasia. If in middle age speech disorders were detected in 42.4% of cases, in the elderly in 64.5%, then in the senile in 85.7% of the examined. In old age, the frequency of the main neurological symptoms increased compared to the average, but the most pronounced neurological disorders were noted in old age.

Thus, neurological symptoms of ischemic stroke in elderly and senile persons, as a rule, were dissociated in nature, general cerebral symptoms prevailed (80.9%). It should be noted that in 20% of cases, general cerebral symptoms were caused by somatic diseases.

Next, we analyzed the focal neurological symptoms existing in the examined patients in general with AI and depending on age (Table 2).

Table 2
Objective focal neurological symptoms in the examined patients

Indicator	44-59 year		60-74 year		75-90 year		all	
	n	%	n	%	n	%	N	%
Central paresis of the VII pair of cranial nerves	38	64,4	82	88,2	20	95,2	140	80,9
Central paresis of the XII pair of cranial nerves	34	57,6	78	83,9	18	85,7	130	75,1
Anisoreflexia	31	52,5	71	76,3	20	95,2	122	70,5
Reduced convergence, weak accommodation	31	52,5	75	80,6	19	90,5	125	72,3
Reflexes of oral automatism	48	81,4	83	89,2	20	95,2	151	87,3
Instability in the Romberg pose	47	79,7	78	83,9	20	95,2	145	83,8
Intention for finger-nasal (PNP) test	39	66,1	60	64,5	18	85,7	117	67,6

A statistical study of the representation of focal neurological symptoms in general in AI showed that central paresis of the facial nerve was observed in 140 (80.9%), central paresis of the sublingual nerve in 130 (75.1%), anisoreflexia in 122 (70.5%), decreased convergence and weakness of accommodation in 125 (72.3%), reflexes of oral automatism in 151(87.3%), positive Romberg symptom in 145 (83.8%), intention in PNP in 117 (67.6%) and finally ataxia in CP in 63 (36.41%)). The existing clinical neurological symptoms indicate brain damage due to circulatory disorders and at the same time shows the localization of the ischemic focus and, accordingly, the cerebral vessel basin to the doctor.) When analyzing the above neurological symptoms, the study of them in three age groups is of the greatest interest. As can be seen from the presented data, the dependence of the increase in the frequency of occurrence of central paresis of the VII and XII pairs of PMN with age is noted, so in middle age the percentage of this symptom was 64.4%, and in senile - 95.2%, in old age this symptom was noted 88.2%, i.e. 1.1 times less often in contrast to senile and in 1.4 times more often, depending on the average age. Involvement of the hyoid nerve in the pathological process in the form of a central paresis was observed in 57.6% of cases at an average age, 83.9% in the elderly, and 85.7% in the senile. A similar pattern was observed with the frequency of occurrence of anisoreflexion of tendon and periosteal reflexes.

Reduced convergence and accommodation weakness were found in 31 (52.5%) patients aged 44-59 years, in 75 patients aged 60-74 years and in 19 patients aged 75-90 years. Reflexes of oral automatism were observed, respectively, in 48 (81.4%), 83 (89.2%) and 20 (95.2%) patients, respectively, according to their age. Instability in the Romberg pose was also diagnosed as progressive with increasing age (79.7%, 83.9% and 95.2%, respectively).

The intention in the finger-nasal test was found in more than half of the examined patients with AI, and had comparatively high numbers in old age. With a knee-heel test, a statistically dependent frequency of occurrence was noted, so at the age of 44-59 years - 15.3%, 60-74 years - 41.9%, and at 75-90 years - 71.4%.

As can be seen from the obtained factual material, the frequency and severity of focal neurological symptoms has a direct correlation with age. The older the age of developing neurological clinical symptoms, the more severe and severe they are formed and the frequency clearly prevails in elderly and senile people. At the same time, the resuscitator and neurologist are given the opportunity to establish a topical diagnosis, i.e. to determine the localization of damaged brain matter due to ischemia. Often, the results of a full and thorough examination of the neurological status are more accurate than other pairs of clinical and instrumental studies, up to neuro-imaging (MSCT and MRI). Of course, if the neurological status is correctly interpreted and analyzed taking into account the severity of one or another focal neurological symptoms and also the age-related features that we have identified, then it will be easier for the attending physician to decide on the appropriate drugs for full and rational therapy. In addition to the above, neurological deficits when grouped into clinical syndromes will make it possible to find out a specific pool of cerebral vessels (middle, anterior, or posterior cerebral artery and vertebral or basilar).The age features of the identified changes allow us to conclude that proper and timely therapy will allow the return of the sick, especially middle-aged people to normal life and to their profession.

References

1.B.S. Vilensky. Stroke: prevention, diagnosis and treatment. St. Petersburg, 2012. pp. 124-151.

2.V.V.Kovalchuk, A.A.Skoromets. Problems and shortcomings, perspectives and directions of rehabilitation of stroke patients.//Medico-social expertise and rehabilitation.-2008.-No. 1.-pp.47-51.

3.E.I.Gusev , V.I.Skvortsova. Epidemiology of stroke in Russia..//Journal of Neurology and Psychiatry named after S.S. Korsakov. Stroke. Appendix to the journal.2003, issue 8-pp.4-10.

4.Z.A.Suslina, A.V.Fonyakin, L.A. Geraskina.Cardioneurology: Current state and promising directions. -2012.-Bulletin of the Russian Academy of Medical Sciences.

5.M. M. Asadullaev, F. S. Saidvaliev, F. K. Shermukhamedova, J.K. Rizvonov, N.M. Vakhabova (2012). Evaluation of the multimodal effect of cytoflavin in acute cerebral stroke that developed against the background of metabolic syndrome. Journal of Neurology and Psychiatry. SS Korsakov, 112(10), 24-27.

6.M.M. Asadullaev, G.S. Rakhimbayeva, N.M. Vakhabova, Sh.A.Zhangirov, (2021). The frequency of the main neurological symptoms in ischemic stroke among elderly patients. Zbirnik naukovikh prats SCIENTIA

7.M.M. Asadullaev, G.S. Rakhimbayeva, N.M. Vakhabova, Sh.A.Zhangirov, (2021). Shtkir ischemic stroke rivozhlanishdagi pathogenetic mechanism. Zbirnik naukovikh prats SCIENTIA

8.N.M. Vakhabova, R. B. Azizova, N. N. Abdullayeva. (2019). Gender characteristics of risk factors and background diseases in different variants of ischemic stroke in elderly and senile people.

9.N.M. Vakhabova. (2021). The structure of clinical and neurological symptoms in acute cerebral strokes in men and women in the elderly and senile age. Journal of Neurology and Neurosurgical Research 2(3).

10.N.M. Vakhabova. (2021).The specific effect of hyperhomocysteinemia on the occurrence of ischemic stroke of the brain. Journal of Neurology and Neurosurgical Research. Topical issues of neurology.Bukhara, October 20-21, 2021

11.N.V.Vereshchagin. Heterogeneity of stroke:a view from the position of a clinician. Neuropathol Journal.and a psychiatrist.-2003.-No.9-pp.23-26

12.A.Umarov, N.Vakhabova, A.Prokhorova, , & M. Narzikulova. (2016). PS-82 GENDER FEATURES OF THE RENIN-ANGIOTENSIN-ALDOSTERONE SYSTEM (RAAS) IN PATIENTS WITH ARTERIAL HYPERTENSION IN UZBEKISTAN. Journal of Hypertension, 34, e497.

13.A. M. Makhmudovich, R. G. Sattarovna, V. N. Maksudovna, , & A. K. Maksudovich. (2020). The Application Of Preparation Mavix In The Complex Treatment Of Ischemic Stroke In The Elderly Age. The American Journal of Medical Sciences and Pharmaceutical Research, 2(12), 55-63.

14.A.Umarov, A. Prokhorova, G. Rakhimbaeva, & N. Vakhabova.(2016, January). Stroke indidence and association with risk factors in women in Uzbekistan. In CEREBROVASCULAR DISEASES (Vol. 41, pp. 212-212). ALLSCHWILERSTRASSE 10, CH-4009 BASEL, SWITZERLAND: KARGER.

15.A. M. Makhmudovich, R. G. Sattarovna, V. N. Maksudovna, & J. S. Azamatovich,. (2021). Hyperhomocysteinemia And Pathogenetic Mechanisms Of Ischemic Stroke. The American Journal of Medical Sciences and Pharmaceutical Research, 3(02), 66-76.

16.A.Umarov, & N. Vakhabova,. (2017, January). Hormonal status in patients with acute ischemic stroke in uzbekistan-cortisol and insulin-like growth factor-1 igf. In

CEREBROVASCULAR DISEASES (Vol. 43). ALLSCHWILERSTRASSE 10, CH-4009 BASEL, SWITZERLAND: KARGER.

17.A.Umarov, & N.Vakhabova. (2017, January). Hormonal status in patients with ischemic stroke in uzbekistan-cortisol, estradiol and testosteron. In CEREBROVASCULAR DISEASES (Vol. 43). ALLSCHWILERSTRASSE 10, CH-4009 BASEL, SWITZERLAND: KARGER.

18.A.Umarov, N.Vakhabova, M. Asadullaev. (2021). Gender characteristics of the main arteries of the head. Journal of the Neurological Sciences 429,119645,2021

19.A.Umarov, N.Vakhabova, G. Rakhimbaeva, M.Asadullaev. (2021).The Gender features ahd its frequency. Journal of the Neurological Sciences 429,119646,2021

20.D. Akramova, G. Rakhimbaeva, N.Vakhabova, M. Narzikulova. (2017, January). The frequency of ischemic stroke depending on the season and it's gender features. In CEREBROVASCULAR DISEASES (Vol. 43). ALLSCHWILERSTRASSE 10, CH-4009 BASEL, SWITZERLAND: KARGER.

21.M. M. Asadullaev, G. S.Rakhimbaeva, N. M. Vakhabova, H. M. Asadullaev, F. M. Mirzaakhmedov, O.Q. Saidnosirov. //Gender Features of Neurological Manifestations in Ischemic Stroke-International Journal Of Pharmaceutical Research

22.M.M. Asadullaev, F.S. Saidvaliev, F.K., Shermukhamedova Zh.K.Rizvonov, N.M. Vakhabova. (2012).Assessment of multimodal effect of cytoflavin in the acute brain stroke in patients with metabolic syndrome.Zhurnal nevrologii i psikhiatrii imeni SS Korsakova,112(10),24-27

23.M.M. Asadullaev, N.M.Vakhabova., &H.M. Asadullaev. (2020). Risk Factors and Background Diseases in Different Variants of Ischemic Stroke in the Elderly and Senile Age. International Journal on Orange Technologies, 2(10), 86-88.

24.M.Ergasheva, & N.Vakhabova, (2019). New gender-influenced stroke study: Cognitive manifestations in acute ischemic stroke in Uzbekistan. Journal of the Neurological Sciences, 405, 115.

25.M.Ergasheva, N.Vakhabova, & G. Rakhimbaeva. (2019). Gender, aging and background diseases influence on the new neuronosological structure of acute ischemic stroke in Uzbekistan. Journal of the Neurological Sciences, 405, 115.

26.N.Tolibova., N. Vakhabova., U. Shirasava. (2017). Gender differences in stroke subtypes, severity, risk factors, and outcomes amont elderly patients with acute ischemic stroke among Uzbek population. CEREBROVASCULAR DISEASES 43

27.N.M. Vakhabova, G.S. Rakhimbaeva, M.M. Asadullaev. (2021). Clinical and Neurological Symptoms in Acute Brain Stroke from Gender Dymorphism and Age Features.International Journal of Multidisiplinary Research And Analysis.ISSN:2643-9840,Volume 04 Issue 10 october .P. 1406-1410

28.N.Tolibova, & N.Vakhabova. (2017). Gender differences in stroke subtypes, severity, risk factors, and outcomes among elderly patients with acute ischemic stroke in Uzbekistan. Journal of the Neurological Sciences, 381, 377.

29.N.Tolibova, & N.Vakhabova. (2017). Stroke incidence and association with risk factors in women in Uzbekistan. Journal of the Neurological Sciences, 381, 377.

30.N.Tolibova, & N.Vakhabova. (2017, January). Homocysteine levels and functional outcome in patients with ischemic stroke in Uzbekistan. In CEREBROVASCULAR DISEASES (Vol. 43). ALLSCHWILERSTRASSE 10, CH-4009 BASEL, SWITZERLAND: KARGER.

31.V. N. Maksudovna. (2016). Indirect influence of hormonal status on the development of ischemic insult and its gender peculiarities. European science review, (9-10).

32.U.Makhmudova, , & N.Vakhabova, (2019). Gender dependent neuropsychological manifestations study in patients with acute ischemic stroke in Uzbekistan. Journal of the

Neurological Sciences, 405, 118-119.

33.U.Makhmudova, G. Rakhimbaeva, & N. Vakhabova, (2019). New approach of risk factors and background diseases role in acute ischemic stroke in elderly and senile-aged patients in Uzbekistan. Journal of the Neurological Sciences, 405, 118.