



Diagnosis of Patients with Cerebral Ischemic Encephalopathy Using Computed Tomography

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Abstract: *CT is often one of the first tests performed when assessing a stroke. CT scans can show areas of abnormalities in the brain and help determine whether these areas are caused by insufficient blood flow (ischemic stroke), rupture of blood vessels (hemorrhage), or a completely different problem.. it will help. In clinical practice, there are two types of stroke: hemorrhagic and ischemic.*

Keywords: *vessels, impaired, heart, availability, damage, rehabilitation.*

According to medical statistics, ischemic stroke prevails (70-85%), when compression or blockage of blood vessels occurs as a result of thrombosis, embolism or other vascular, heart or blood diseases. Unlike ischemic stroke, hemorrhagic type (20-25%) occurs rupture of the blood vessel wall, then blood is poured into the brain, under its membranes or into the ventricles. As a result, nerve cells in the area with impaired blood supply die. After the death of part of the nerve cells, the body loses one of the functions for which the dead cells are responsible, and depending on which part of the brain is damaged, various functions can be disrupted: , violation of emotional perception, violation of speech functions. a distorted mind. The larger the area of brain damage, the more severe the manifestations and consequences of stroke. As a result, nerve cells in the area with impaired blood supply die. After the death of part of the nerve cells, the body loses one of the functions for which the dead cells are responsible, and depending on which part of the brain is damaged, various functions can be disrupted: , violation of emotional perception, violation of speech functions. , a distorted mind. The larger the area of brain damage, the more severe the manifestations and consequences of stroke.

Acute violation of cerebral circulation, leading to damage and death of blood vessels and nerve cells. Early and accurate diagnosis of this disease is one of the most pressing problems today. The purpose of our study is to analyze the role of computed tomography in modern medicine, as well as its advantages and disadvantages. The main part. About computed tomography: invented in 1972 by Cormack and Hounsfield; ▪The highest computer technology of X-ray methods, X-rays are used. Cuts from 1-12 mm are possible. Universal method ("from head to toe")The X-ray density of tissues is measured relative to water on the Hounsfield scale advantage - dense tissues - calcification of bones is a fast method (1-2 s), in old devices - 2-3 min. Synchronization with breathing Dense body structures - bone, contrast, metal - create artifacts of the cavity, retroperitoneal space, musculoskeletal system - bones Stroke is the second leading cause of death worldwide, causing more than 5.5 million deaths annually Before stroke treatment requires visualization, and visualization methods help in diagnosis and treatment selection. Computed tomography (CT) is the most common way to diagnose suspected stroke due to its low cost, wide availability and speed of visualization. CT scans use X-rays to produce images of the skull and brain, which are then used by



computers. to create a cross-section (or "slice") of the brain image. These images can show the location and extent of brain abnormalities caused by blood clots, tumors, vascular malformations, etc. CT is ideal for determining the presence of stroke. is ischemic or hemorrhagic, as they often differ from each other in the images.

During computed tomography, the patient lies in a tunnel-like apparatus, the inner part of the apparatus rotates, and X-rays of the head, brain and skull are taken at different angles. The procedure usually takes from 20 minutes to an hour and is painless with minor side effects. In clinical practice, there are two types of stroke: hemorrhagic and ischemic. According to medical statistics, ischemic stroke prevails (70-85%), when compression or blockage of blood vessels occurs due to thrombosis, embolism or other vascular diseases, heart or blood. Unlike an ischemic stroke, with hemorrhagic type (20-25%), a rupture of the blood vessel wall occurs, then blood is poured into the brain, under its membranes or into the ventricles, as a result of which nerve cells in the area with impaired blood supply die. After the death of part of the nerve cells, the body loses one of the functions for which the dead cells are responsible, and depending on which part of the brain is damaged, various functions may be disrupted: impaired emotional perception, impaired speech functions, impaired consciousness. The larger the area of brain damage, the more serious the manifestations and consequences of stroke. The risk of stroke increases with age, but nowadays this disease has become much younger. A 40-year-old man with a stroke is less likely After 55 years, the risk of stroke doubles every ten years. The prognosis of strokes depends on the degree of brain damage, as well as the quality of first aid provided, the speed of delivery of the patient to the hospital, the correctness and volume of rehabilitation measures in the future. If you suspect a stroke, you should immediately call an ambulance and inform doctors about the symptoms, regardless of their disappearance or intensification. Hospitalize immediately. The hospital will do a CT scan of the brain, which will confirm or deny the fear. Computed tomography is important in the diagnosis of stroke. Despite the well-developed clinical diagnosis of strokes, it does not solve such important tasks as determining the degree of damage and prognosis. In this regard, modern stroke diagnostics primarily includes neuroimaging methods necessary for the differential diagnosis of hemorrhagic and ischemic stroke, as well as differential diagnosis with other diseases (primarily volumetric processes). Computed tomography of blood vessels makes it possible to distinguish a stroke (hemorrhagic stroke) from a heart attack and start proper treatment in a timely manner, allowing to limit the lesion and avoid the development of complications Hemorrhagic stroke of the right and left hemispheres of the brain. Summary. Scientists admit that today there is no device replacing a CT scanner. The information obtained by tomography is very important for a complete study of the patient's condition. CT scans can now be used to examine the brain and spinal cord, spine, lungs, chest organs, liver, kidneys, pancreas, adrenal glands, aorta and pulmonary arteries. Since 2000, a new generation of CT began to appear: spiral computed tomography (MSCT), multispiral computed tomography (CT). Computed tomography today remains one of the most convenient and accessible methods of examination for the population. In the future, we can make sure that the new generations of this control method will be more convenient and high-quality than the current ones.

List of sources used

1. Ходжибекова М.Х., Исмаилова М.Х., Ахмедов Б.Р. медицинская радиология (предназначен для студентов медицинских институтов) Ташкент 2020. 16-176.



2. Ходжибеков М. Х., Исмаилова М. Х., Ахмедив Б. Р. Медицинская радиология – Ташкент, 2020. – 135 с.
3. Базарбаев М.И., Саломова Ф.И. «Общая и медицинская радиобиология» Ташкент 2019.
4. Ibragimova, D. N., & Khusainova, Z. J. (2022). HEMOLYTIC DISEASE IN THE FETUS AND NEWBORNS. *World Bulletin of Public Health*, 9, 190-194.
5. Murodovna, J. D., & Narzikulovna, I. D. (2023). Use of Beclometasone Dipropionate in the Treatment of Allergic Rhinitis in Pregnant Women. *Web of Synergy: International Interdisciplinary Research Journal*, 2(4), 367-369.
6. Jiyanboyevich, Y. S., Aslam, I., Ravshanovna, M. U., Azamatovna, F. G., & Murodovna, J. D. (2021). Ventricular Arrhythmias With Congenital Heart Disease Causing Sudden Death. *NVEO-NATURAL VOLATILES & ESSENTIAL OILS Journal/ NVEO*, 2055-2063.
7. Rajabboevna, A. R., Farmanovna, I. E., & Murodovna, J. D. (2022). Optimization of the Treatment Algorithm of Patients with Low Resistance to Antiepileptic Drugs Using Pharmacogenetic Tests. *Eurasian Medical Research Periodical*, 11, 95-97.
8. Murodovna, J. D., Bakhodirovna, S. D., & Yangiboyevna, N. S. (2022). Learning Liquid Medicine Forms and Writing Prescriptions for Medical School Students. *Central Asian Journal of Medical and Natural Science*, 3(5), 72-76.
9. Murodovna, J. D., Ravshanovna, M. U., Azamatovna, F. G., & Ergashboevna, A. Z. (2022). ABU-THE ROLE OF THE TEACHINGS OF ALI IBN SINA IN THE UPBRINGING OF A HARMONIOUSLY DEVELOPED GENERATION. *Web of Scientist: International Scientific Research Journal*, 3(5), 1522-1526.
10. Narzikulovna, I. D. (2023). New Generation of Analgesics: A Promising Approach for Pain Management. *Scholastic: Journal of Natural and Medical Education*, 2(5), 217-221.
11. Жалилова, Д. М. (2022). Средства, Применяемые При Лечении Микролитиаза Жалилова Дилдора Муродовна. *AMALIY VA TIBBIYOT FANLARI ILMIIY JURNALI*, 1(6), 104-106.
12. Халимбетов, Ю. М., Юлдашев, С. Ж., & Жалилова, Д. М. (2022). ЭКОЛОГИЧЕСКОЕ ВОСПИТАНИЕ В СИСТЕМЕ ДУХОВНО-ПРАВСТВЕННОГО ВОСПИТАНИЯ. In *Биотехнология и биомедицинская инженерия* (pp. 236-239).
13. Jalilova, D. M., & Burkhanova, D. S. (2022). Learning to Write Prescriptions for Soft Drug Forms. *Eurasian Medical Research Periodical*, 13, 34-37.
14. Eshkobilov Sh, A., Eshkobilova, M. E., & Abdurakhmanov, E. (2015). Determination of natural gas in atmospheric air and technological gases. *Ecological systems and devices*, 9, 11-5.
15. Eshkobilova, M. E., Abdurakhmanov, I. E., & Nasimov, A. M. (2018). Some metrological characteristics of a semiconductor methane sensor. *Samsu scientific Bulletin*, (1), 136-140.
16. Eshkobilova, M. E., & Khudoyberdieva, F. B. (2023). Composition and structure of composite building materials. *INTERNATIONAL JOURNAL OF SOCIAL SCIENCE & INTERDISCIPLINARY RESEARCH ISSN: 2277-3630 Impact factor: 7.429*, 12(01), 1-4.
17. Abdurakhmanov, E., Murodova, Z. B., Eshkobilova, M. E., & Sidikova, K. G. (2021, September). Development of a selective sensor for the determination of hydrogen. In *IOP Conference Series: Earth and Environmental Science* (Vol. 839, No. 4, p. 042086). IOP Publishing.



18. Eshkobilova, M. E., Abdurakhmanov, I. E., & Nasimov, A. M. (2018). Some metrological characteristics of a semiconductor methane sensor. *SamSU scientific Bulletin*, (1), 136-140.
19. Sidikova, K. G., Eshkobilova, M. E., & Abdurakhmanov, E. (2019). Термокаталитический сенсор для селективного мониторинга природного газа. In *VI-Международные научные практической конференции GLOBAL SCIEN CEAND INNOVATIONS* (pp. 235-238).
20. Sidikova, K. G., Eshkobilova, M. E., & Abdurakhmanov, E. (2019). Термокаталитический сенсор для селективного мониторинга природного газа. In *VI-Международные научные практической конференции GLOBAL SCIEN CEAND INNOVATIONS* (pp. 235-238).