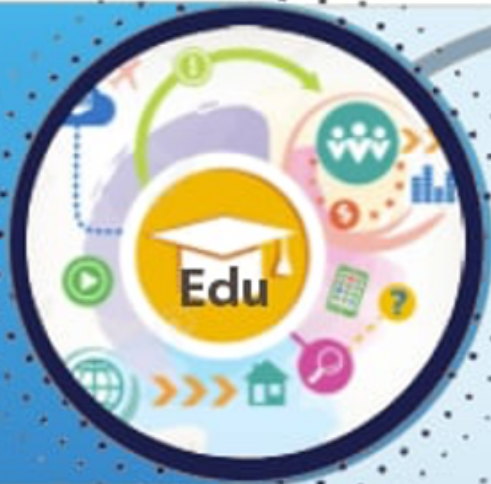




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## A Clinical Case of Neurodegenerative Disease of the type of Lewy Body Disease with Severe Cognitive, and Autonomic Disorders.

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### ABSTRACT

**Background.** Clinical manifestations of neurodegenerative diseases are diverse and difficult to diagnose. Dementia with Lewy bodies is a progressive neurodegenerative disease, clinically manifested by a combination of dementia, psychiatric disorders, parkinsonism, sleep disorders and autonomic dysregulation.

**Methods.** A descriptive method was used, which is of the greatest interest in the context of the described clinical case in the Department of Neurology of the Tashkent medical academy. Patient M., 67 years old, falls into a “coma” several times during her life and is hospitalized.

**Conclusion.** The "lesson" learned from the clinical case: it is necessary to be very attentive to the collection of complaints and anamnesis of patients. The anamnesis of the disease must be collected from several relatives of the patient, which can take a very long time but can also provide an opportunity to find out the features of the course of the disease. And the establishment of the correct diagnosis makes it possible to completely change the tactics of management.

**Keywords:** dementia with Lewy bodies, Parkinson's disease, narcolepsy attacks, autonomic dysfunction

### INTRODUCTION

Lewy body dementia (LBD) is a progressive neurodegenerative disease that presents clinically with a combination of dementia, psychiatric disorders, parkinsonism, sleep disturbances, and autonomic dysfunction [1,2,3,4]. Fluctuations in attention and cognitive state are the main feature of LBD. This phenomenon includes the strengthening and weakening of cognitive functions, a functional state characterized by episodes of confusion, behavior, inattention, and incoherent speech, alternating with episodes of clear consciousness.

Parkinsonism is the main feature of LBD and may be the initial symptom in about a quarter of patients. Dementia with Lewy bodies is diagnosed mainly clinically. Of fundamental importance is the identification of a combination of the main signs (dementia, visual hallucinations, parkinsonism, autonomic dysfunction, sleep disorders), fluctuation of symptoms, and features of the development of the disease (dementia precedes parkinsonism or appears together with it). Considering the rarity of neurodegenerative diseases, and the difficulties of diagnosis, we decided to highlight the following clinical case.

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The purpose is to describe a clinical case of a patient with a neurodegenerative disease of the Lewy body type with severe cognitive and autonomic disorders.

### CASE PRESENTATION

**P**atient M., 67 years old, was admitted to the Department of Neurology of TMA with a diagnosis of CVD. Consequences of repeated strokes by ischemic type against the background of GB. Upon admission, the patient could not complain on her own because of her uncritical attitude to her health and amnesia for the events that occurred during the confusion. According to relatives, the main complaint of the patient is periodic "coma" and doctors cannot determine the exact cause of this condition. During a thorough questioning, it turned out that the patient had bouts of confusion of consciousness "short" and "long", during which the patient did not behave adequately.

"Short" attacks last a few minutes and are repeated several times during the day. Relatives described these attacks as follows: "she forgets what she recently ate and asks to eat again; forgets that she recently went to the toilet and wants to again, and at the same time she can return and forget to empty herself; confuses places - the kitchen can be mistaken for a bath (illusions); sees objects that do not exist at that moment (hallucinations) - for example, points to a ship that does not actually exist in this place and asks to substitute it for her; or she can walk quickly without a cane and even up the stairs (at the same time, at other usual times, she complains of pain in her knees and moves little, walks only with the help of a cane, and moves up the stairs only with outside help); slurred speech may appear; show extreme inattention and «withdraw into oneself». During "long" large attacks - paroxysms, the patient cannot be awakened from sleep, at this time the patient does not control the functions of the pelvic organs and urinate. Each time, relatives and ambulance doctors mistook such a phenomenon for "whom" and the patient is hospitalized with a diagnosis of stroke. But after a few hours, the patient (usually no more than 8 hours) wakes up without paresis. After paroxysms of confusion, the patient usually does not remember anything. At other usual times, the patient has restless poor night sleep and daytime sleepiness lies a lot has no interest in life. Once during sleep, the patient got up and wanted to put a bag over her head and wipe her feet with a headscarf. In the morning the patient did not remember anything about it. The patient periodically has persistent diarrhea, because of the fear of which she does not want to visit, frequent nighttime urination (nocturia), increased appetite (bulimia), overweight, knee joints

hurt, and blood pressure periodically rises to 160/100 mm Hg. Art, swelling on the legs.

**From the anamnesis:** for many years she suffers from arterial hypertension, and she took antihypertensive drugs irregularly. Against the background of increased blood pressure, and recently without it, there are bouts of confusion, which are described above. For the last 2 years, the patient's movements and walking have become slow, there is a small tremor in the hands. According to relatives in general, the disease progresses.

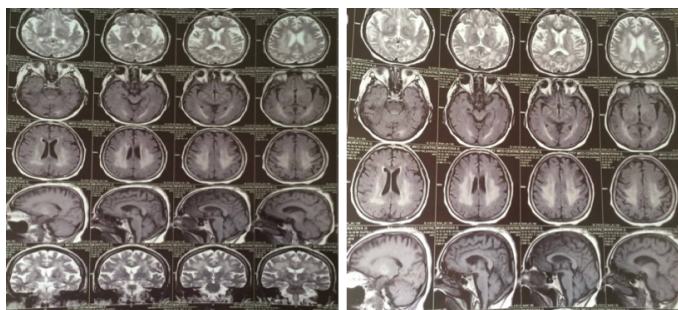
**Objectively:** The general condition of the patient is moderate; the position is active. Obesity III degree, swelling in the legs, blood pressure 130/100 mm Hg. Art., heart rate 76 beats / min. Diarrhea is noted when taking fruits, and medicines. Nocturia.

**Neurostatus:** at the time of examination, the patient is conscious, her behaviour is calm, neat, well-groomed, contact is available, she understands spoken speech, and orientation in time and space, in herself and to others is preserved. Intelligence corresponds to age, reads newspapers. The emotional background is stable, apathetic, but the sense of humor is preserved. Self-criticism is reduced. Poorly concentrates attention, thinking is slow, operative memory is impaired due to the instability of attention, short-term memory is impaired for events that occurred during paroxysms of confusion, long-term memory is preserved. From the anamnesis, visual illusions (she mistook the kitchen for a bath), visual hallucinations (she wanted to sit on a non-existent pot). Danzig-Kunakov's symptom is negative on both sides. From the pathology of the cranial nerves: VII pair: asymmetric face, slight hypomimia, central paresis on the right, XII pair: dysarthria, tongue in the midline, no atrophy and fibrillation of the tongue. Motor sphere: There are no obvious paresis in the limbs. Active and passive movements in full, slightly limited due to pain in the knee joints. There are oromandibular hyperkinesis, hypomimia, bradykinesia, oligokinesia, rest tremor, chanted speech. The patient walks with a cane, slow walking, hand trembling. According to relatives, episodes of fast straight walking without support (paroxysmal kinesias) were sometimes observed. Muscle tone in all limbs is moderately increased according to the plastic type with elements of spastic hypertonicity. Muscle strength by 5 points in all muscle groups. Tendinous symmetrical tetrahyperreflexia with an extended reflexogenic zone. Pathological reflexes: Babinsky, Rossolimo, foot clonus, reflexes of oral automatism Marinescu-Rodovici and proboscis positive on both sides. When examining the sensitive sphere, it gives ambiguous answers. Coordinator samples: stable in the Romberg position, performs a

finger-nose test with a slight intentional tremor. There are no meningeal symptoms. The function of the pelvic organs at the time of examination controls, during the violation of consciousness may not control. There are no elements of aphasia. He gets confused in the sequence during the independent repetition of the "fist-rib-palm" test due to the instability of attention. The ideational and motor praxis is preserved, but the commands are executed with some delay due to poor concentration of attention and slowing down of thinking. Score on the Montreal scale 23 points. Reduced attention is noted - for example, he quickly gets confused when counting money, while long-term memory is very good, remember previous dates and names. impaired short-term memory due to poor concentration, mild visual-spatial disorders.

**EEG conclusion:** Deceleration of the posterior dominant rhythm. Interhemispheric asymmetry. Slow-wave activity in the central-temporal regions of the GM.

**MRI - conclusion** (dated April 11, 2016): Signs of a symmetrical lesion of the white matter of the cerebral hemispheres and cerebellum (neurodegenerative process).



Vascular encephalopathy. Atrophy of the cerebral hemispheres. MRI - conclusion (dated October 16, 2018): Signs of damage to the basal ganglia, cerebellar hemispheres and periventricular white matter. DE. Atrophy of the cerebral hemispheres.

## DISCUSSION

The above clinical case refers to rare diseases, and its key features are the patient falling into a "coma" several times, hospitalized each time with a diagnosis of stroke, but after a few hours when she wakes up and comes to, doctors do not find a gross neurological deficit and neuroimaging signs. According to studies by many authors, the diagnosis of LTD is clinical, neuroimaging, as a rule, does not reveal specific signs of the disease [1,2,5,7].

Narcolepsy attacks, which were regarded as "coma", the patient had a total of 4 times: in 2016, 2017, and

twice in 2018. Diagnostic difficulties were the similarity of attacks of narcolepsy with coma, and stupor during prolonged bouts of mental disorder. Repeated careful collection of complaints and anamnesis of the disease from several relatives of the patient, which each time took at least an hour, made it possible to find out the features of the course of the disease. And the establishment of the correct diagnosis made it possible to completely change the tactics of management.

The patient's disease has a progressively fluctuating character, with cognitive and mental disorders. It manifested itself with impaired attention, visual-spatial disorders, visual hallucinations, the development of parkinsonism syndrome against the background of already existing dementia, the presence of narcolepsy attacks, which were mistakenly regarded as "coma", motor excitations during sleep, autonomic disorders in the form of diarrhea, bradycardia and nocturia.

According to the literature [1], changes in the MRI pattern are basically similar to those in AD and include atrophy of the cortex predominantly in the temporal, parietal, and occipital regions of the brain, as well as internal atrophy with dilatation of the lateral ventricles. Perhaps the presence of periventricular leukoaraiosis, is somewhat more pronounced in the anterior parts of the brain, but its prevalence and severity, as a rule, are small [1,5,7]. Other researchers also obtained similar results from ours [3, 7].

All these clinical manifestations gave us reason to doubt the correctness of the diagnosis of stroke and to conduct a further diagnostic search. We have made a differential diagnosis with many nervous system neurodegenerative diseases. Although the brain matter was not biopsied, many clinical manifestations resembled dementia with Lewy bodies, which refers to the disease's parkinsonism plus dementia. The spectrum of clinical manifestations of LBD is very wide and includes cognitive, neuropsychiatric, movement disorders, autonomic dysfunction, sleep, and wakefulness disorders [1,2,3,5,7] that our patient had.

Given the similarity of the above manifestations of the dementia clinic, visual hallucinations, narcolepsy attacks, and parkinsonism plus syndrome, a clinical diagnosis was made of neurodegenerative disease of the nervous system like dementia with Lewy bodies.

## CONCLUSION

The "lesson" learned from the clinical case: it is necessary to be very attentive to the collection of complaints and anamnesis of the patient. The anamnesis of the dis-

ease must be collected from several relatives of the patient, which can take a very long time but can make it possible to find out the features of the course of the disease. And the establishment of the correct diagnosis makes it possible to completely change the tactics of managing the disease in patients.

Ethics approval and consent to participate - All patients gave written informed consent to participate in the study. Consent for publication - The study is valid, and recognition by the organization is not required. The author agrees to open the publication.

Availability of data and material - Available

Competing interests - No

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**LEVI TANACHALARILI DEMENSIYA KOGNITIV, VEGETATIV BUZILISHLI NEYRODEGENERATIV KASALLIGI KUZATILGAN KLINIK XOLAT**

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**Abstrakt**

**Dolzarbli.** Neyrodegenerativ kasalliklar klinik ko'rinishi xilma xil va qiyin tashxislanadi. Levi tanachali demensiya - bu avj oluvchi neyrodegenerativ kasallik bo'lib, klinik ko'rinishi ruxiy buzilishlar, parkinsonizm, uyqu buzilishlari va vegetativ dizregulyatsiya bilan namoyon bo'ladi.

**Material.** TMA nevrologiya bo'limiga M. Ismli bemor SVK, Gipertoniya kasalligi fonida, o'tkazilgan qayta insultlar asorati tashxisi bilan kuzatildi. U hayoti mobaynida bir necha bor "koma"larga tushadi va davolanishga yotqiziladi.

**Xulosa.** Klinik holatdan olingan "saboq": bemorlarning shikoyatlari va anamnezini yig'ishga juda ziyraklik bilan e'tibor berish kerak. Kasallikning anamnezi bemorning bir nechta qarindoshlaridan olinishi kerak, bu juda uzoq vaqt talab qilishi mumkin, ammo kasallikning rivojlanishining xususiyatlarini aniqlash imkoniyatini ham beradi. To'g'ri qo'yilgan tashxis esa bemorni olib borish taktikasini butunlay o'zgartirishga imkon beradi.

**Kalit so'zlar.** Levi tanachali demensiya, Parkinson kasalligi, narkolepsiya xurujlari, vegetativ disfunktsiya

**КЛИНИЧЕСКИЙ СЛУЧАЙ НЕЙРОДЕГЕНЕРАТИВНОГО ЗАБОЛЕВАНИЯ ПО ТИПУ БОЛЕЗНИ ТЕЛЕЦ ЛЕВИ С ВЫРАЖЕННЫМИ КОГНИТИВНЫМИ, ВЕГЕТАТИВНЫМИ РАССТРОЙСТВАМИ.**

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**Абстракт**

**Актуальность.** Клинические проявления нейродегенеративных заболеваний многообразны и трудно диагностируются. Деменция с тельцами Леви – это прогрессирующее нейродегенеративное заболевание, клинически проявляющееся сочетанием деменции, психических расстройств, паркинсонизма, нарушений сна и вегетативной дисрегуляции. **Материал.** Больная М. 67 лет в поступает в отделение неврологии ТМА. С диагнозом «ЦВЗ. Последствия повторных ОНМК по ишемическому типу на фоне ГБ». В течении жизни пациентка несколько раз впадает в «кому» и госпитализируется в различные клиники. Каждый раз пациентку выписывают с диагнозом инсульт, но через несколько часов после выхода из «комы» у больной не находят грубых неврологических расстройств, что и дало нам основание сомневаться в корректности этих диагнозов и провести дальнейший тщательный диагностический поиск.

**Заключение.** «Урок» вынесенный из клинического случая: необходимо очень внимательно относиться к сбору жалоб и анамнеза больных. Анамнез заболевания нужно собирать от нескольких родственников больного, которые могут занимать очень много времени, но и могут дать возможность выяснить особенности течения заболевания. А установление правильного диагноза, даёт возможность полностью изменить тактику ведения.

**Ключевые слова:** деменция с тельцами Леви, болезнь Паркинсона, приступы нарколепсии, вегетативная дисфункция