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Research Article

CLINICAL AND NEUROLOGICAL PARAMETERS IN SENILE ASTHENIA SYNDROME

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Khodjaeva Madina Fakhritdinovna
Tashkent Medical Academy, Uzbekistan

ABSTRACT

Asthenia senile syndrome is coded R54 in the International Classification of Diseases (ICD-10). Today, the prevalence of this syndrome among elderly people worldwide is 13%, while the prevalence of "senile preadjustment syndrome" is 50%. With an unfavourable course, without early treatment and rehabilitation, senile prehospital syndrome develops into senile asthenia after 4-5 years. This syndrome is a key concept of modern gerontology.

KEYWORDS

Senile asthenia, neurological features, gerontology.

INTRODUCTION

Asthenia senile is an age-associated syndrome, reflecting a decline in the body's physiological reserve. Asthenia senile is more common in patients than in the general population, and is an independent predictor of hospital admissions, including emergencies, and mortality. This may be explained by the association of senile asthenia with reduced mobility, falls, polypragmia, comorbidity, cognitive impairment and malnutrition. Other syndromes also associated with senile asthenia, such as cachexia and sarcopenia, are also associated with poor prognosis. Population ageing is a global demographic phenomenon. Increases in life expectancy and improvements in health care delivery are contributing to the population of older and older people. According to UN experts, by 2050 the proportion of people over 60 will double globally (from 11% to 22%) to reach 2 billion, and the population aged 80 years and over will almost quadruple.

In Uzbekistan life expectancy has increased from 67 years in 1991 to 74.6 years in 2020. According to the 2018 clinical guidelines on senile asthenia of the

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Russian Association of Gerontologists and Geriatrics, senile asthenia is a geriatric syndrome characterized by an age-associated decline in the physiological reserve and functions of many body systems, leading to increased vulnerability of the elderly to endo- and exogenous factors with high risk of developing adverse health outcomes, loss of autonomy and death. The syndrome of senile asthenia (SSA) is manifested by deficit states of several physiological systems, including the central nervous system. This fact makes the identification, treatment and prevention of this syndrome relevant in the context of neurological health.

In 'senile asthenia syndrome', due to polymorbidity, many organs and systems are affected, leading to a slow decline in the body's reserve capacity and to disability or death due to external or internal influences. The syndrome is characterised by malnutrition (malnutrition), sarcopenia (age-related reduction in muscle mass and strength) and metabolic disorders with dysfunction of internal organs, including the brain. The 'senile asthenia syndrome' depends on genetic predisposition and the presence of several chronic diseases. Thus, 'senile asthenia syndrome' can be due to both a genetically inherited condition, physical and mental decline in adverse aging, and polymorbidity.

Purpose of the study: to study the peculiarities of neurological deficits in patients with SSA, to develop markers of early detection of CNS lesions

MATERIAL AND METHODS OF RESEARCH

the use was conducted on the basis of TMA department of neurology from 2018 to 2023, 117 elderly people were examined, with the "frail" phenotype of an elderly person, which takes into account the physique, nutritional status, as well as physical status and motor skills. The following indicators were taken into account: weight loss, sarcopenia, malnutrition, low levels of physical activity and limited physical ability. A number of methods were used to detect senile asthenia and included clinical and instrumental tests, as well as questionnaires completed by the patients. Such as the validated "Age is not a handicap" scale, the International Asthenia Assessment Scale (FAS), the SUN scale (well-being, activity, mood), the Montreal Cognitive Assessment Scale (MoAS) test, the quality of life scale (SF-36) and the Zung Anxiety and Depression Assessment Questionnaire. In addition, a geriatrician was consulted.

RESULTS

Analysis of the characteristics of senile asthenia in a comparative study examined the manifestation of neurological deficits in patients with SSA. Based on the results, a multifactorial mathematical analysis of the data was performed to develop an algorithm for early diagnosis of neurological manifestations of SSA and optimise treatment tactics. The patients were divided into two groups. The first group included preasthenic patients. The second group consisted of patients with asthenia. The following parameters such as age, height, weight etc were taken to compare group one with group two. The results are shown in Table 1.

Table №1.

Analysis of the characteristics of senile asthenia parameters in a comparative study

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Parameters	control	prestania	asthenia
Age	66,5±1,0	66,6±0,92	71,6±0,85**^^^
Height	168,2±1,0	165,8±0,47*	168,0±0,66^
Weight	72,8±1,9	77,6±1,9	72,2±1,4^
BMI	25,7±0,59	28,2±0,63*	25,7±0,48^^
dynamometer	31,0±1,5	22,8±0,34***	17,2±,0,52***^^^

Note: *- significant compared to the control group (*-P<0.05; **-P<0.01; *-P<0.001).**

The neurological features and diagnostic approaches in senile asthenia syndrome were investigated on the basis of patient data, the results of which are given in Table 2.

TableNº 2.

Neurological findings in senile asthenia syndrome

Neurological parameters	prestania		asthenia		P
	abs.	%	abs.	%	
centre paresis 7 pairs	29	46,8±6,4	35	58,3±6,4	>0,05
c/p 12 pairs	27	43,5±6,3	32	53,3±6,5	>0,05
anisoreflexia	18	29,0±5,8	24	40,0±6,4	>0,05
Oral automatism reflexes	32	51,6±6,4	40	66,7±6,1	>0,05
coordination disorders	28	45,2±6,4	35	58,3±6,4	>0,05
swallowing disorders	12	19,4±5,1	17	28,3±5,9	>0,05
rossmolmo	18	29,0±5,8	20	33,3±6,1	>0,05
jacobson weasel	17	27,4±5,7	22	36,7±6,3	>0,05
sensory disturbance	19	30,6±5,9	22	36,7±6,3	>0,05

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pelvic disturbances	16	25,8±5,6	19	31,7±6,1	>0,05
muscle tone disorders	20	32,3±6,0	24	40,0±6,4	>0,05

Note: *- significant compared to control group (*-P<0.05; **-P<0.01; *-P<0.001)**

^-significantly in comparison with the indicators of prestenosis (^-P<0,05; ^^-P<0,01; ^^^-P<0,001)

It is shown that with aging and increase of age-specific asthenization processes, the increase of pro-oxidant factors production is accompanied by weakening of antioxidant factors. In addition, with the development of senile asthenia there is an increase in pro-inflammatory activation. Our data once again proved that, in all patients, the following parameters were evident: 1) loss of body weight, 2) reduced hand strength as determined by a dynamometer, 3) general weakness and increased fatigue, 4) reduced speed of movement (slowness), 5) reduced physical activity.

CONCLUSIONS

Thus, the obtained data allowed us to conclude that the formation of senile asthenia syndrome is caused by pro-oxidative processes and increased chronic immune inflammation. As a result of the patient's health status, frequent inpatient treatment courses and a constant need for nursing care become necessary.

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