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Geriatric giants among the elderly

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Summary

Geriatric giants are chronic, multisamplant, progressive disorders that lead to functional disability and deteriorate the quality of life of older people. The risk of their occurrence increases with age. They do not pose a direct threat to life, but are difficult to treat, reduce social contacts and increase the dependence of older people on carers. We include among them mobility disorders and falls, visual and auditory disturbances, depression and dementia, incontinence and stool incontinence. These diseases interact with each other. One disease contributes to the occurrence of the next, while those that appear strengthen the one that was diagnosed earlier. They are an element of the so-called cycles and geriatric cascades.

GG (geriatric giants) is a significant medical problem. Patients or their carers do not report this to the medical staff, considering that they are a natural consequence of aging or that their treatment is impossible.

The aim of the work is to present geriatric giants occurring among older people and to identify screening tools used to assess the risk of individual geriatric problems..

Key words: Geriatric giants, elderly people, quality of life

Introduction

Geriatric giants are termed chronic, multidisciplinary disorders that progressively lead to functional disability and contribute to the deterioration of the quality of older people's lives. The risk of their occurrence increases with age. They do not pose a direct threat to life, but are characterized by difficulties in treatment (usually symptomatic), contribute to limiting social contacts and increasing dependence of elderly people on the family / carers [1,2]. They constitute a serious problem from the point of view of public health, which results the frequency of their occurrence and the cost of medical care [3].

We include GG among others mobility disorders and falls, visual and auditory disturbances, depression and dementia, incontinence and stool incontinence [4].

The purpose of the study

The aim of the study is to present geriatric problems occurring among older people and to identify screening tools used to assess the risk of individual geriatric problems.

Falls

Fall is a sudden, unforced and unintentional loss of balance, as a result of which a person is on the ground, floor or lower surface, while walking or performing other activities with / without loss of consciousness [5].

Falls are conditioned by many factors. The more factors, the greater the risk of falling. The causes of falls can be divided into internal and external ones. Internal factors are related to the aging of the body, they are a consequence of: involutional changes, chronic diseases occurring, applied pharmacotherapy, current acute illnesses. On the other hand, external factors include architectural barriers in the home (incorrect lighting, too slippery floor, lack of handrails at the stairs, improper height of furniture, lack of amenities in the bathroom) or outside the home: no elevators, high uneven curbs[6].

The World Health Organization divided risk factors for falls into: biological (age and sex, clinical status of the patient and age-related changes), behavioral (taking multiple drugs simultaneously, use of antidepressants, alcohol abuse, low physical activity and wearing of inappropriate shoes, lack or incorrect use of orthopedic help and fear of falling), environmental (architectural barriers in the place of the elderly person's stay: slippery and

narrow surfaces of stairs, floors, loose carpets, lack of handrails), and socio-economic factors (low income and low education) [7].

As a result of a fall, an elderly person may have a series of physical, psychological and socio-economic consequences. The physical consequences can include: bruises, wounds, fractures and injuries leading to hospitalization, hypothermia, immobility, deterioration of functional capacity and death [8]. The psychological consequence of falls is a post fall syndrome consisting in fear of another fall and, consequently, in limiting physical activity and adopting a passive attitude. Fear of another fall on the principle of a vicious circle increases the risk of another fall. The post fall syndrome may concern both people who have suffered an accident and those who are afraid of falling or had seen a fall [9].

The socio-economic consequences of falls include an increase in dependence on the family / carers, the need for constant care at home, hospitalization and an increase in the need for specialist care or the need to be placed in a care facility [2].

The tests for the assessment of mobility and the ability to maintain balance in the elderly include: Stand up and walk test, Tinetti test to assess balance and gait, Pilet test and Swine test, 4-part test to maintain the balance [9].

Blurred vision and hearing impairment

Age changes occurring in the eye can be divided into categories: anatomical changes, visual disturbances, eye diseases [10].

The anatomical changes apply to all the components of the eye: the protective device of the eyeball, the transparent elements and the membrane of the eyeball. The main cause of vision disorders is primarily loss of accommodative ability of the eye and reduction of the inflow of light to the retina. Other disturbances in the eye organ with age include: weakness of visual acuity, narrowing of the visual field, reduced ability to distinguish colors and perceiving contrasts, excessive sensitivity to strong light causing so-called glare, scents and flashes in the field of vision [11]. Age-related eye diseases include: age-related macular degeneration - AMD, glaucoma, senile cataract [10].

Risk factors related to age related macular degeneration are age over 75, sex- women, blue iris, genetic factors, unhealthy lifestyle, deficiency in the diets of vitamins E, C, beta-carotene, selenium, deficiency of lutein and zeaxanthin, obesity, smoking cigarettes. There are two types of age-related macular degeneration: a degenerative dry form, a wet (exudative) form, associated with the formation of new blood vessels [8]. The Amsler Test is a screening tool for AMD diagnosis.

Glaucoma is a progressive, chronic eye disease. The consequence of the disease is damage to the optic nerve and irreversible loss of vision. In the course of glaucoma, the retinal ganglion cells die and the axons of these cells disappear. The effect of the disappearance of nerve fibers is initially deterioration of peripheral vision, followed by the appearance of areas of brownies and loss of vision Preventive and diagnostic tests enabling the detection of the disease are: measurement of intraocular pressure, assessment of the optic nerve disk, examination of the angle of perception, examination of the field of vision, modern diagnostic techniques such as: laser scanning tomography, scanning laser polarimetry, optical tomography of the retina and optic nerve.

Senile cataract arises as a result of the aging process of the eye. It is a lens disease based on its partial or complete turbidity. Symptoms of cataracts are different depending on the type of cataract (cortical, nuclear, subcapsular) and, consequently, the location of turbidity. The majority of senile cataracts are of mixed nature, with slow development. Eyesight loss occurs gradually over months or years [12].

Hearing impairment is characteristic of old age, affects the entire population of people over 65 years of age. Symptoms reported by an elderly person include: hearing impairment, limited understanding of spoken words, and hearing additional sounds. Older people report a deterioration in the sound locating abilities, which may be dangerous when traveling alone in public places. Hearing loss in the range of treble gradually progresses. Older hearing impairment causes difficulties in understanding speech in noise. The involutional changes in the auditory system are symmetrical [2]. The whisper test tool is a tool for assessing the ability of hearing.

Senile dementia

In Poland, the incidence of dementia among people over 65 is 5.7% - 10%, in the population of people aged 90 and over to 50%. According to forecasts, in 2030 people with dementia will be over 9 million [13].

Dementia is a set of symptoms caused by a chronic or progressive brain disease. It is characterized by cognitive impairment, such as memory, thinking, understanding, orientation, counting, language functions, learning, assessment, planning. Dementia may precede or be accompanied by emotional disorders, behavior and motivation [2,14]. The most common cause of dementia is Alzheimer's disease (50-70% of cases). In addition to Alzheimer's disease, there is: vascular dementia, dementia with Lewy bodies, fronto-temporal dementia.

Alzheimer's disease is characterized by the beginning of symptoms that is difficult to grasp and the slow and gradual intensification of cognitive functions. The average duration of the disease is 8-14 years. In the recent period, patients are not able to move independently, resulting in: lying in bed, contractures and muscular atrophies, decubitus ulcers, urinary tract infections and respiratory infections - the most common cause of death among people with dementia [15].

Lewy body dementia - the essence of the disease consists in the deposition of Lewy bodies in the brain. It is characterized by the occurrence of psychotic and neurological symptoms. Signs of symptoms are usually behavioral changes - irritability, lack of emotion control, aggression and later apathy. Typical are visual hallucinations, parkinsonian syndrome and variable course of cognitive function disorders. Dizziness, recurrent falls and transient disturbances of consciousness are common. The hypersensitivity to neuroleptics is characteristic.

In frontotemporal dementia, neurodegenerative changes include the frontal and temporal lobes. It is characterized by the occurrence of personality, behavior and speech disorders. The basic symptoms are: emotional blunting, lack of self-criticism, social behavior disorders. It has a slow start and progressive course.

Vascular dementia - this is a type of dementia resulting from diseases of the blood vessels. The most common causes are ischemic (atherosclerotic) haemorrhagic or inflammatory changes. The focal character of changes in the tomographic examination, the abrupt course and the presence of somatic and neurological symptoms is characteristic [14].

The symptoms of dementia depend on its stage. At the beginning, there are mild symptoms, often not noticeable by the patient's family and surroundings. Over time, the symptoms intensify causing deterioration of professional and social activity, and later also basic life activity.

In order to determine the type and degree of dementia, an interview with a person showing symptoms of dementia, family, physical examination and laboratory, psychological, neurological and CT scans should be performed [15].

Screening tests used in dementia are (Mini-Mental State Examination MMSE), Clock-Drawing Test (CDT) [16]. It is especially important to regularly repeat the tests and compare them to assess the progress of dementia changes over time.

Senile depression

Depression is the most common mental disorder in the elderly. It is characterized by the presence of reduced mood and motor drive, loss of interest, anxiety as well as sleep disorders. It is estimated that elderly people suffering from depression are around 15% [17]. Often there are: attention deficits and thinking abilities, loss of self-esteem, guilt, inhibition or anxiety, changes in appetite and body weight. Particularly noteworthy are somatic symptoms occurring in the course of depressive disorders. Depression itself promotes the occurrence of disorders on the part of various organs and body systems, but also somatic diseases through various mechanisms are conducive to depression. This is a complicated mechanism of interdependencies that make recognition difficult. There are also many drugs that have the effect of drugs showing depressive effect: antihypertensive drugs, corticosteroids, calcium antagonists, part of anticancer drugs, psychotropic drugs [18].

There are three types of depression of old age: asthenic-depressive syndromes, atypical depressions, psychotic depressions [19]. Asthenic-depressive syndromes are characterized by apathy, loss of interest, psychomotor slowness, and indifference. It may be accompanied by somatic symptoms such as: exhaustion, headaches, palpitation. Atypical depressions are characterized by an atypical clinical picture, which is a big diagnostic problem. The difficulty is to determine whether the reported somatic symptoms are caused by somatic illness, depression or pharmacological treatment. Psychotic depression is characterized by the appearance of delusions, hypochondriatic symptoms as well as the utterance of absurd contents. A frequent symptom is auditory hallucinations, nihilistic or hypochondrial delusions characterized by absurdity [18]. There are also factors predisposing elderly people to depression: loneliness after loss of life partner, "empty nest syndrome", occurrence of chronic diseases feeling of being unfit after retirement [17], widowhood, loneliness, poor financial condition change of residence, age above 80 years of age, diseases of the central nervous system, somatic diseases, sex: women, personality type, alcohol abuse, drug abuse [19]. The diagnosis of depression in the elderly is difficult due to the similarity of some of its symptoms to somatic disorders typical of old age. The symptoms of depression are then mistakenly recognized as symptoms of somatic illness and referred to as so-called somatic depression masks.

The Geriatric Depression Rating Scale (GDS) in a full version of 30 questions, shortened 15 questions and short 4 questions [17] is the screening tool for diagnosing depressive symptoms.

Urinary and fecal incontinence

The current definition of the International Continence Society (ICS) by urinary incontinence (UI) states that this is "a complaint about any leak of urine" [20]. Urinary incontinence affects 10-20% of the total population of older people and about 15-30% of women over 70 years of age [21]. Epidemiology of urinary incontinence among the elderly is different depending on the sex, more often concerns women. UI can be temporary and permanent. One of the UI classifications is distinguished by three types: stress urinary incontinence (SUI), urge urinary incontinence (UUI) and mixed urinary incontinence (MUI) [22].

Stress urinary incontinence is the most common type of urinary incontinence, it involves involuntary leakage of urine during activities such as: effort, coughing, sneezing, laughing, bending, lifting items.

Urinary incontinence is characterized by uncontrolled contraction of the detrusor muscle and the occurrence of urgent urges, i.e. a rapidly growing urge to urinate. The result is a frequent and sudden release of a small volume of urine during the day and night.

Overflow incontinence is characterized by leakage of urine from overflowing bladder that is not emptied due to an obstacle to urine outflow and / or reduced excitability of the detrusor muscle.

Transient urinary incontinence among older people appears under the influence of various pathological factors, usually outside the urinary tract. The causes of transient incontinence are called DIALZNOK(polish version). D- Delirium, I- Urinary tract infections, A- Atrophic urethritis of the urethra and vagina, L- Drugs, Z- Mental disorders, N- Excessive volume of urine output, O- Restriction of movement, K- Stuttering of the rectum [6].

Although UI does not threaten life, it significantly reduces its quality, bringing with it both physical and mental suffering. It leads to the loss of a sense of dignity and self-worth, emotional disorders, resignation from sexual activity and various forms of physical activity [23].

The diagnosis of urinary incontinence should begin with a meticulous subjective examination of micturition disorders in childhood and obtaining accurate obstetric-gynecological information (regarding pregnancies, deliveries, pelvic surgery), co-morbidities (diabetes, urolithiasis, hypertension or osteoporosis) medications and eating habits. The European Society of Urology and the Polish Urological Association recommend methods of basic diagnostic procedures that can be used in all groups of symptoms appearing in different types of urinary incontinence: They are: medical history, micturition diary, assessment of ailments based on a point questionnaire, assessment of impairment of quality of life, physical examination, bacteriological examination and assessment of the amount of urine remaining in the bladder after micturition (PVR - postvoidresidual urine) [24].

In men, however, there are symptoms of narrowing of the lower urinary tract in the course of prostatic or cancer growth. The risk factor for ailments is the volume of the prostate above 40 ml. Symptoms associated with benign prostatic hyperplasia can be divided into two groups: obstructive symptoms (weakened stream of urine, difficulties in beginning micturition, intermittent stream of urine, urine flow, feeling of incomplete emptying of the bladder) and irritation symptoms: pollakiuria, nocturia, pain during donation urine [25].

Fecal incontinence (FI) is a lack of control over stool excretion. The problem of fecal incontinence among the elderly occurs in about 5-6% and is more frequent in charges of care centers. The cause of incontinence in nearly 50% of cases is constipation and leakage of liquid stool around retaining fecal masses [26].

Summary

Big geriatric teams are a significant medical problem, including because patients or their families / carers do not report this to medical personnel, considering that they are a natural consequence of aging or that their treatment is simply impossible. It should be emphasized that they never stem only from age. These diseases interact with each other, one contributes to the occurrence of the next, while those that appear strengthen the one that was diagnosed first. This creates a vicious circle [4].

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