

## Section 7. Medical science

### Секция 7. Медицина

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### Somatoform pruritus in elderly age and senility

**Abstract:** Pruritus — the most common complaint in elder and senile people. The reasons can be very diverse, most of them are related with systemic pathologies. Also we must take into account and metabolic disorders, liver, kidney, gastrointestinal tract forming organs and the endocrine system. This requires a careful examination of the patient, consider its condition of skin, and in diagnosing senile pruritus a dynamic monitoring is needed.

**Key words:** skin itch, somatoform pruritus, pruritus in elderly age and senility.

Chronic persistent pruritus can disrupt the quality of life by leading to sleep disorders, disability, depression, even suicide attempts. According to the literature, pruritus, is often persistent and painful, leads to depression, insomnia, and even suicide attempts, that were experienced by about 50% of people aged over 60 years. This significantly reduces the quality of life of patients [3]. Among all patients with itching, who have consulted a doctor, to the share of systemic causes come from 10 to 50% of cases [1, 3]. Separate system diseases and conditions, are often accompanied by itching: diseases of the genitourinary, hepatobiliary system, endocrine, hematologic, neurologic disease, paraneoplastic syndrome, rheumatologic, psychiatric, infectious and parasitic, pregnancy and age [1, 3, 6, 9]. The formation of skin itch — as a symptom of neurosomatic pathology is possible even in the presence of subclinical, latent, asymptomatic forms [11, 12]. Caused by different reasons and pathological states, skin itch is important in the early diagnosis of somatic diseases and serves as a guide for targeted interventions to eliminate pathogenic factors, to restore defected visceral-dermal relations and organ pathology. A particular problem is senile pruritus, that is probably caused by xerosis, due to concomitant senile degenerative changes in peripheral nerves, atrophic processes in the epidermis, sebaceous glands and sweat glands, hair follicles and the dermis [2, 4, 11]. In Uzbekistan, the researches in this area only began to be held.

**Objective:** to study peculiarities of somatoform pruritus in people of elderly age and senility.

#### **Material and methods.**

We examined 84 patients of elder and senile age, registered at the central polyclinics № 2 MSU of Tashkent city, of which 46 were men (54.8%), 38 women (45.2%). Elderly aged patients were 36 (42.9%), senile age and centenarians 48 (57.1%), the average age of the examined patients was  $72,0 \pm 1,14$  years. Patients with addictions were 20 (17.1%). Prescription of itch was ranged from 6 months to 18 years, up to 1 year — in 8, 5 years — in 67 patients and more than 5 years — in 9 from surveyed, the average duration of itching was  $3,32 \pm 2,94$  years. Most of the surveyed patients (56%) addressed primarily to her therapist about an itch, and third believed that the doctors did not pay enough attention to this complaint. In all surveyed 3 or more diseases were identified, that have been divided according to the International Classification of Diseases (ICD-10) [8]. The frequency, severity, prevalence and intensity of itch were analyzed in different nosology [14]. Presence of itch was established on the basis of complaints, clinical manifestations and forms-based questionnaire. Digital material were processed by variation statistics.

#### **Results and discussion.**

In all patients polymorbidity was mainly detected. Analysis of frequency of diseases' nosologic forms (ICD-10) showed a high incidence of diseases of

cardiovascular, hepatobiliary, urinary and nervous system (80,3–82,9%). The frequency of diseases of the musculoskeletal system and connective tissue, as well as the gastrointestinal tract and diseases of the ear and mastoid process were 71.8; 66.7 and 54.7%. Our findings coincide with the literature, which shows the presence of chronic diseases [5, 12], [5, 9] [12] [10] [7]. Previously, our studies have shown that more often itch has been detecting in malignant tumors (57, 1%), and psychiatric disorders (59.6%), diseases of the ear and mastoid process (62.7%), respiratory diseases (55.4%), and hepatobiliary system (55.2%). According to S. V. Herman (2004), pruritus sensation in people of elder age and senility in systemic diseases may be due to lowering of threshold of normal stimulus, due to the development of xerosis, as a stimuli can serve pruritogenic exogenous and endogenous substances (activation of the cytokine system, accumulation of endogenous opioids, toxins, biogenic amines) which can be affecting on any part of the nerve pathways from the skin to sensory cortex [3, 11, 13].

There are several classifications, considering different etiologic and clinical features of chronic pruritus. International forum for pruritus investigation, proposed a classification where clinical and differential diagnostic criteria [14], are including skin, system, neurological, psychiatric (psychosomatic), combined, unknown causes. Analysis of the frequencies of separate etiological causes of chronic itching in the surveyed patients showed that the system — 43.6%, neurological — 80.3%, psychiatric — 23.9%, combined — 46.2% and only in 6% of the surveyed the etiological factors were not identified.

Analysis of the questionnaire, which was filled by patients showed that 30.8% of patients had periodic itching, in 26.5% — arose mainly in the evening, in 21.4% — a constant itching, regardless of the time of day and season, 11.1% — during the day and 10.3% of the patients noted seasonal development of pruritus. Analysis of provoking factors showed that 31.6% of patients could not clearly indicate the initiating factor, in 20.5% itch occurs after nervous strain, in 14.5% — while diet offence, in 13.8% — after taking drugs, for the occurrence of pruritus after taking off the clothes, after enhanced sweating, mechanical irritation and exacerbation of somatic diseases complained from 2% to 7% of patients. We did not detect any defined correlation of mentioned parameters with nosology. For generalized pruritus complained 72 (61.5%) patients, the remaining noted limited itching of different localization: 7.6% of

the patients complained of itching of the scalp, 5.1% — in the upper extremities, face and head, in the lower extremities — 6.8%, in the back — 12.8%, legs, stomach and back — 3.4%, for anogenital pruritus complained 2.6% of the patients.

Pruritus intensity rating by VAS scale showed that for itch of low intensity (from 0 to 4 points) complained 9.7% of the patients, medium (5–6) — 30.8%, high intensity (7–8 points) — 37.1% of patients, unbearable, excruciating itching (9 points) — 23.1% of the patients. Pruritus influenced to the mood of patients, disturbed sleep, patient became irritable and aggressive, interfere in the performance of daily work. As a result of long itching excoriation, pigmentation, scars, lichenification, pyoderma occurred, in some patients, the free edge of the nail plate was grinded, nails looked like polished.

In patients with diseases of the hepatobiliary system, and hepatitis C painful, persistent and generalized pruritus was observed. It began gradually and localized, further becoming generalized, especially at night. According to the literature, accumulation of endogenous opioids leads to cholestatic pruritus, which modulate itch and opioidergic tones are amplified in the brain, resulting in activation of central opioid receptors, that induces scratching [1, 11, 13]. In cirrhosis main itch localizations are extremities, hips and abdomen.

Diabetes pruritus more commonly arised in the anogenital region, auditory meatus, scalp or had a diffuse character, was due to metabolic abnormalities, anhidrosis and diabetic neuropathy [1, 3]. Anal itching occurred more frequently in men, being manifested by painful itching, genital itching — in women was caused mainly by candida or dermatophyte infection. In patients with diffuse toxic goiter itching was unstable, poorly defined, was mainly driven by the activation of the kinin system, hyperthermia and hyperhidrosis. In hypothyroid states itching mostly had a generalized character, due to excessive dryness of the skin.

In patients with malignant tumors limited local itching of varying intensity was observed, particularly in patients with prostate adenoma complained of itching of the scrotum and perineum, women with cervical cancer mainly complained of itching in the vagina, in tumors of the head — mostly in the facial area and head. Apparently, this was due to entering to the systemic circulation of toxic products of necrotic tumor cells, chemical mediators of itch synthesised by tumor.

Pruritus from a clinical point of view in the neuroses and psychoses was noteworthy. If patients with neuroses had

transit slightly presented itching and which decreased after administration of sedatives, then the patients with psychosis presented deep excoriations. In our surveyed patients with a high frequency of itch atherosclerotic vascular changes, polyneuropathy were detected [10].

Thus, in elder aged and senile people systemic changes were observed in various organs and tissues, defining polymorbidity. Under these conditions, pruritus — is

the most common complaint in the elder people. The reasons can be very diverse, most of them are related to systemic pathologies. We also must take into account the metabolic disorders, liver, kidney, gastrointestinal tract, blood-forming organs and abnormalities in function of endocrine system. This requires a careful examination of the patient, considering his/her skin condition, and after detection senile pruritus dynamic monitoring is needed.

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## Survey analysis of features of vegetarianism

**Abstract:** The article discusses the vegetarian diet. With a view to objective research and the impact on the human experiment was conducted, compared blood cell count average person before he switched to vegetarianism and after.

**Keywords:** nutrition; vegetarianism; fats; acid; blood.