for late-onset aortic aneurysm; 3) glucocorticoids (GCs) as initial therapy for non-infectious aortitis, but as aortotoxic while being used in the absence of aortic inflammation; 4) nosological entity for: GCA with isolated aortitis, polymyalgia rheumatica (PMR) and Takayasu arteritis; IgG4-RD with abdominal periaortitis and lymphoplasmacytic thoracic aortitis; 5) main pathogenetic role with aortic dissection for aortic inflammation, with aortic aneurysm for different types of inflammatory cells. The concept of vascular-IgG4-RD, which has been recently developed in Japan, put forward a hypothesis on the related aortopathy as a «special curable large vessel vasculitis» and to suggest pathologists classify inflammatory aortic aneurysms by IgG4-status. Our study substantiated the spectrum of age-related aortopathies: aortic stiffness syndrome, atherosclerosis/IAA, aortic mediacalcinosis, fatty and amyloid degeneration, ADs with GCA, PMR, IgG4-RD or other late-onset RDs. Besides, infectious and iatrogenic aortopathies are more danger in aged than in younger patients. With these ADs, we considered the mechanisms of inflammaging and immunesenescence, links with the other age-related risks and comorbidities, and offered the original conceptual model of abdominal aortic aneurysm prevention. Further research should develop a universal nomenclature of ADs, strengthen evidence on the aortic effects (and their epigenetic potential) of different diseases, drugs and other xenobiotics, nanotechnologies, life style and microbiota characteristics, life quality after aortic interventions, etc. The scientific monograph «Inflammatory aortopathies and rheumatic diseases of the elderly» was published in 2023 in Kyiv to publicize our research.

Conclusions. The concept of aged-related inflammatory ADs, rising from the Consensus of European cardiovascular pathologists, corresponds to the longevity medicine's paradigm on managing vascular and inflammatory aging and the Decade of Healthy Aging's tasks.

To our knowledge, our initiative interdisciplinary international study and its main result, which is the monograph printed in Ukraine, have no prototypes. Further research should base on interdisciplinary approach, and rheumatologists may contribute much by studying ADs in patients with RDs of the elderly, late-onset RDs and special geriatric syndromes.

4. VITAMIN D STATUS IN COMPREHENSIVE-COMLEX APPROACHES IN MANAGEMENT OF PATIENTS WITH GONARTIHROSIS

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Osteoarthritis of the knee joint (KJO) is one of the most common forms of degenerative-inflammatory joint diseases. Vitamin D deficiency is associated with an increased risk of progression of KJO, decreased muscle strength, and more pronounced pain syndrome.

The objective: to investigate and assess the effect of adding cholecalciferol in KJO treatment in patients with vitamin D deficiency and the dynamics of pain, functional activity, and quality of life.

Materials and methods. 62 patients with stage 1–2 osteoarthritis (according to the Kellgren–Lawrence classification) were examined; subjects were divided into the main group (n=34) with 25-hydroxyvitamin D (25(OH)D) deficiency and the control group (n=28) with normal vitamin D levels. In accordance with national and international clinical recommendations, all patients were prescribed pharmacotherapy, which included basic drugs from the group of symptomatic slow-acting drugs for osteoarthritis (SYSADOA), as well as nonsteroidal anti-inflammatory drugs (NSAIDs) (on demand), and patients in the main group additionally received cholecalciferol 5600 IU/day for 12 weeks. The effectiveness of therapy was assessed using the visual analog scale (VAS) and the KOOS (Knee injury and Osteoarthritis Outcome Score) scale in dynamics. The KOOS scale includes five domains: pain; symptoms (swelling, limited mobility, mechanical manifestations); daily activity; activity requiring significant physical effort and sports; quality of life related to the condition of the knee joint. The duration of the study was 90 days and included four visits: V1 (day of inclusion), V2 (30 ± 3 days), V3 (60 ± 3 days), V4 (90 ± 3 days).

Results. In patients in the main group, the level of vitamin D was below optimal values: 72% were found to be insufficiency, and 28% were deficient. The reduction in pain according to VAS was significant in both groups, but the rate of decrease was faster and more pronounced in the main group. After 30 days of observation, patients in the main group showed a significant decrease in pain intensity according to VAS by 35% compared to baseline ($p<0,05$), while in the control group the decrease was only 20%. By V3, this figure was 51,8% versus 41.9%, respectively. The most pronounced decrease was observed at V4, when pain decreased by 65,3% in the main group and by 53,8% in the control group. In addition, the proportion of patients who required the use of NSAIDs decreased to 22,5% versus 35,6% in the control group after 30 days, and subsequently patients in both groups completely refused to take them. For all five KOOS domains — «pain», «symptoms», «daily activity», «physical activity and sports», «quality of life» — the indicators of the main group prevailed over the corresponding values in the control group from the second visit. The total KOOS score in the main group increased from 43.8 to 91.1 points, and in the control group — from 44.8 to 85.0. The largest differences were found in the domains «quality of life» and «physical activity». By day 90, 89,6% of patients in the main group reached the optimal level of 25(OH)D, which was accompanied by a significant improvement in clinical condition.

Analysis of the dynamics of the total score of the KOOS scale confirmed the positive effect of including cholecalciferol in the complex therapy of OAC. Such dynamics indicates not only the effectiveness of the treatment, but also the stability of its effect, provided that the level of vitamin D is corrected.

Conclusions. Adding cholecalciferol to the treatment of OAC in patients with its deficiency improves the clinical condition, reduces pain, increases functional activity and quality of life.

5. INTENSITY OF NIGHTTIME ARTHRALGIA AND THE RADIOGRAPHIC GRADE OF GONARTHROSIS: IS THERE A LINK?

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Osteoarthritis (OA) is the most common joint disease, affecting approximately 600 million people worldwide. Knee joint damage (gonarthrosis — GA) is the most common form of OA. The most distressing symptom of GA is arthralgia. About a quarter of patients with GA complains of night pain in the knee joints. Nighttime arthralgia is poorly relieved by nonsteroidal anti-inflammatory drugs (NSAIDs), disrupts sleep, and causes depression. The presence of nighttime arthralgia indicates a more unfavorable course of GA and is used as one of the criteria for knee arthroplasty.

The aim. To identify the intensity of nighttime arthralgia in patients with GA of various radiographic grades (by Kellgren-Lawrence).

Materials and methods. The study included 32 patients with GA accompanied by nighttime arthralgia, aged 48±3.21 years, predominantly women (22). Group 1 consisted of 18 patients with GA, grade 3. Group 2 consisted of 14 patients with GA, grade 4. The intensity of nighttime joint pain was assessed using a 10-point visual analog scale (VAS), where level 1 corresponded to the absence of pain, and level 10 corresponded to the very severe pain that could not be tolerated. Statistical processing of the obtained results was carried out using the nonparametric chi-square criterion (2), which indicated the differences between the empirical and theoretical frequencies of variables.

Results. Among patients in group 1, nighttime arthralgia of low intensity (from 2 to 4 points by VAS) was observed in 2 cases, average intensity (from 5 to 7 points by VAS) was observed in 8 cases, and high intensity (from 8 to 10 points by VAS) was observed in 8 cases. Nighttime arthralgia of varying intensity was present among patients of group 2 in 7, 4 and 3 cases, respectively. Statistically significant ($x2=6.193$, $df=2$, $p=0.045$) differences in the severity of nighttime arthralgias depending on the grade of GA between the groups of patients were identified. In patients with GA, grade 3, high and moderate intensity nighttime arthralgias predominated; low and moderate intensity arthralgias were more frequently observed in patients with GA, grade 4. This fact can be explained by a more limited motor regimen in patients with the terminal grade 4, in which mechanical irritation of the joints was less intense compared to that in patients with GA, grade 3.

The impact of nighttime arthralgia goes beyond the knee joint, affecting the patient's adaptation, quality of sleep and quality of life. It is known that in a person coexisting with chronic pain syndromes, poor sleep aggravates pain, reduces the pain threshold, and, ultimately, leads to a worsening of the disease. From this position, the influence of nocturnal joint pain on the sleep of patients with GA was considered. Sleep disorders in the form of disturbances in the process of falling asleep and/or frequent nocturnal awakenings were detected in 14 (77.8%) patients with GA, grade 3 and in 13 (92.9%) patients with GA, grade 4. There were no statistically significant differences between the frequency of insomnia detection and the radiographic grade of GA in patients with nighttime arthralgias ($x2=1.358$, $df=1$, $p=0.243$). All patients used NSAIDs to relieve night joint pain. Adaptive non-drug methods of relieving nighttime arthralgia were used by 15 (83.3%) patients with GA, grade 3 and 11 (78.6%) patients with GA, grade 4 in addition to NSAIDs. A pillow or a blanket placed between the knees was most frequently used. These patients noted a positive effect of adaptive methods, complementing the action of NSAIDs.

Conclusions. There is a link between the severity of nighttime arthralgia and the radiographic grade by Kellgren-Lawrence in patients with GA. Nighttime arthralgia in patients with GA grade 3 is more intense than arthralgia in patients with GA grade 4. These arthralgias negatively affect the sleep of patients regardless of the radiographic grade of GA. The use of non-drug adaptive methods for relieving nocturnal joint pain is an effective addition to NSAIDs.

6. ВПЛИВ ЦЕНТРАЛЬНОЇ СЕНСИТИЗАЦІЇ НА ЕФЕКТИВНІСТЬ ЛІКУВАННЯ ТА ПЕРЕБІГ РЕВМАТОЇДНОГО АРТРИТУ

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Центральна сенситизація (ЦС) є ключовим чинником хронізації болю при ревматоїдному артриті (РА), пов'язаним із персистуванням центральних нейропластичних механізмів. Цей феномен визначає індивідуальні відмінності клінічної відповіді та потребує врахування при виборі терапевтичної стратегії у таких пацієнтів.

Мета: оцінити вплив ЦС на ефективність лікування РА та особливості перебігу захворювання залежно від її вираженості.

Матеріали та методи. Обстежено 122 пацієнти із діагнозом РА (ACR/EULAR, 2010). Активність захворювання оцінювали за DAS-28, CDAI, SDAI, а інтенсивність болю — за візуально-аналоговою шкалою (ВАШ) за суб'єктивною думкою пацієнта й оцінкою лікаря. Наявність ЦС встановлювали за допомогою ва-