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EARLY PREVENTION AND DIAGNOSTICS OF OSTEOPAROSIS IN WOMEN IN POSTMENOPAUSE (LITERATURE REVIEW)

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Abstract:

Osteoporosis in postmenopausal women is the result of increasing age and estrogen deficiency, 75% or more of bone loss in women during the first 15 years after menopause is a manifestation of estrogen deficiency to a greater extent than aging. During the first 20 years after the cessation of estrogen secretion by the ovaries, postmenopausal trabecular bone and 30% loss of cortical bone tissue. The vertebral bones are especially vulnerable, since the trabecular bones of the vertebral bodies are metabolically active and, in response to estrogen deficiency, a significant 50% decrease in osteoporosis leads to a decrease in vertebral Macca and decreases in women in perimenopause and early postmenopause, when there is an increase in FSH and a decrease in estrogen levels, with bone loss radial tissue is not determined for at least a year the amount of bone significantly after menopause.

Keywords: Osteoporosis, postmenopause, estrogen deficiency, vertebral bone, bone tissue

The state of health and development of society is currently largely determined by the level of population health of women in menopause, who make up a significant part of the population structure. It is they who, having vast experience and high creative potential, are the stronghold of the family and society, the keepers of traditions and spiritual values. Therefore, maintaining an optimal level of health, working capacity and quality of life for older women is an extremely urgent and socially significant problem of modern health care (1,2). Among the diseases of the musculoskeletal system, osteoporosis (OP) occupies a special place as one of the most common diseases of great socio-economic and medical significance. The most common form of the disease is postmenopausal osteoporosis.

Osteoporosis is a disease characterized by low bone mass and microarchitectural damage to its tissue, which ultimately leads to increased fragility and thus increases the risk of fractures. The most common fracture sites are the vertebral bodies, the distal part of the radius, and the femoral neck. Thus, the urgency of the problem of osteoporosis is determined by its wide prevalence, multifactorial nature, frequent disability, and in some cases, death of patients as a result of fractures of the proximal femur (3). According to a number of researchers (Benevolenskaya LI, 2000; Lesnyak SM, 2000), this disease, especially in developed countries, has acquired the character of a "silent" epidemic. Osteoporosis has become a global problem.In the United States, it is among the epidemic diseases affecting more than 20 million people (4,6,7). Large-scale population studies in the field of epidemiology, pathogenesis, diagnosis and prevention of osteoporosis in Europe, North America, Japan and others have become possible over the past 20 years, when conditions for diagnosis appeared, treatment and prevention tools were developed. Most patients with osteoporosis are postmenopausal women. Osteoporosis in postmenopausal women is the result of increasing age and estrogen deficiency, 75% or more of bone loss in women during the first 15 years after menopause is a manifestation of estrogen deficiency more than aging (8,9,11,14,19) . During the first 20 years after cessation of ovarian estrogen secretion, postmenopausal osteoporosis results in 50% reduction in trabecular bone and 30% loss of cortical bone (7,10,12,13). The vertebral bones are especially

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vulnerable, since the trabecular bones of the vertebral bodies are metabolically active and, in response to estrogen deficiency, are significantly reduced in number. Vertebral bone mass is significantly reduced in perimenopausal and early postmenopausal women when there is an increase in FSH and a decrease in estrogen levels, with no loss of radius bone for at least a year after menopause (20,21). The risk of fracture depends on two factors: the peak bone mass achieved at maturity (at age 30) and the subsequent level of bone loss.An increase in the rate of bone loss after menopause is strongly predictive of an increased risk of fracture. Women with low premenopausal bone mass and accelerated menopausal bone loss have the highest risk of fractures. Accelerated bone loss during menopause is an indicator of low endogenous estrogen levels; this may be explained by the fact that postmenopausal bone loss occurs to a lesser extent in women with more adipose tissue and hence increased peripheral estrogen formation (22). Despite significant advances in the diagnosis and treatment of osteoporosis (OP), the study of factors affecting the state of bone mineral density (BMD) remains an urgent scientific problem, still far from a final solution. Its medical and social significance is due to the steady increase in the prevalence of the disease, a significant decrease in the quality of life of patients and the dramatic consequences of pathological fractures (23,24,25). The analysis showed that osteoporosis is registered in every third woman and every fourth man aged 50 years and older. Every minute in the country there are 7 fractures of the vertebrae, and every 5 minutes - a fracture of the proximal femur. Osteoporosis is expensive for health care due to the high cost of treating fractures, which are also accompanied by a significant decrease in the quality of life, disability of patients and mortality. Epidemiological studies have shown that, due to the high risk of fractures, 31% of women and 4% of men older than 50 need treatment for osteoporosis. Osteoporosis risk factors are widespread in society: smoking, low dietary calcium intake, vitamin D deficiency, physical inactivity. Problems in the organization of care for patients with osteoporosis and osteoporotic fractures and ways to solve them are analyzed. The organization of medical care should consist in identifying high-risk groups for fractures, early diagnosis and prescribing appropriate treatment aimed at preventing future fractures and preventing the disease. (26) Treatment and rehabilitation of patients with osteoporosis complicated by bone fractures requires significant material costs. Therefore, measures aimed at identifying risk groups for developing osteoporosis and, as a result, at early diagnosis, high-quality treatment and prevention of the disease will improve the health and quality of life of large groups of the population and will provide significant savings in material resources (27,28).

LITERATURE USED:

1. Pokul' JI.B., Evtushenko I.D., Kolomiec JI.A. Metabolicheskie narusheniya u zhenshchin v sostoyanii postovariektomii [Metabolic disorders in women in the state of postovariectomy] // Mat' i ditya : materialy III Region, nauch. Foruma (Saratov).-M., 2009 S. 214.
2. Sostoyanie zdorov'ya i kachestvo zhizni,u zhenshchin posle total'noj i subtotal'noj gisterektomii / I.S. Zaharenko, A.JI. Chernej, K.A. Aleksi-kova i dr. [Health status and quality of life in women after total and subtotal hysterectomy] // Mat' i ditya : Materialy X Yubilejnogo Vseros. nauch. Foruma. -M., 2009.-S. 305-307.
3. Benevolenskaya L.I., 1998, 1999, 2000; ZazerskayaI.E., NiauriD.A., 2001; Nasonov E.L. 1998, 2001; Kanis J.A., 1991; Melton L.S., 2001
4. Dempster D.W. et al. Pathogenesis of osteoporosis // Lancet. – 2003. – Vol. 341. – N 8848. – P. 797 – 801
5. L.A.Martchenkova, A.V.Dreval, E.U.Polakova, I. P.Ermakova, V.P.Buzulina,N.M.Milov Biohemical markers of bone turnover in the assessment of response to sodirum fluoride treatment in postmenopausal women with glucocorticoid-induced osteoporosis//Abstract book of in International Congresson Glucocorticoid-indused Osteoporosis.19-21April 2001,Mantova, Italy P.26-27
6. A.V.Dreval, L.A.Martchenkova,E. U.Polakova,I. P.Ermakova, V.P.Buzulina,O.V.Perepelova,N.M.Milov The factors in fluenceon B.M.Dand bone turnoverin postmenopausal women with exogenous (ExH) and endogenous hypercorticoidism (EnH)//Abstract book of 2nd International Congresson Glucocorticoid-indused Osteoporosis19-21 April 2001,Mantova, Italy P30/
7. A.V.Dreval', E. Yu.Polyakova, L.A.Marchenkova, I.P.Ermakova, V.P.Buzulina, N.M.Mylov Faktory riska osteoporoza u

World Bulletin of Public Health (WBPH)
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zhenshchin s ekzogennymi endogennym giperkorticizmom v postmenopauze [Risk factors for osteoporosis in women with exogenous endogenous hypercorticism in postmenopausal women] // Materialy Vserossijskogo Kongressa endokrinologov,Sankt-Peterburg, 2001 S 704-705

8. Furkatovna, Amonova Madina. "Vitamin D Deficiency in Menopausa Women." The Peerian Journal 5 (2022): 77-80.
9. A.V.Dreval, L.A.Martchenkova, E.U.Polakova, I.P.Ermakova, N.M.Milov, V.P.Buzulina Bone turnover marker scan be used for monitoring so dium fluoride treatment efficacy in postmenopausal women with glucocorticoid-induced osteoporosis (GIO)// Osteoporosis Int ,2002 V 1 3(suppl1)P 58
10. L.A.Martchenkova,A.V.Dreval, E.U.Polakova, N.M.Milov The factors influenceon bone mineral density (BMD) in women with exogenous hypercorticoidism//Osteoporosis Int.,2002 V1 3(suppl1)P 1 8
11. L.A.Martchenkova, A.V.Dreval, E.U.Polakova, L.P.Ermakova, V.P.Buzulina,N.M.Milov.The assessment of response osodium fluoride treatment with biochemical marker sof bone turnover in postmenopausal women with glucocorticoid-induced osteoporosis(GIO)//Abstract Book of 10 th World Congress on menopause15-18 June 2002, Berlin, Germany P104.
12. A.V.Dreval, L.A.Martchenkova, E.U.Polakova, N.M.Milov Biochemical marker sof bone turnover in the assessment of response osodium fluoride treatment in postmenopausal women with glucocorticoid-induced osteoporosis/ /Abstract book of 6 th European Congress of Endocrinology April 26-30, 2003, Lyon, France P118
13. L.A.Marchenkova, E.Yu.Polyakova, A.V.Dreval', H.K.Cherejskaya, H.M.Mylov, O.N.Slivec, I.P.Ermakova, I.A.Pronchenko, V.P.Buzulina, M.P.Rubin Vliyanie sistemnyh iingalyacionnyh glyukokortikoidov na risk razvitiya osteoporoza u zhenshchin, stradayushchih bronhial'noj astmoj v periode postmenopauzy [The effect of systemic insulating glucocorticoids on the risk of osteoporosis in women suffering from bronchial asthma in the postmenopausal period] // Osteoporoz i osteopatii, 2004. № 3 S 8-12
14. Amonova M.F. Дefisit vitamina D u jenshin v (Obzor literature) //Jurnal Reproduktivnogo zdoroviya i uro-nefrologicheskix issledovaniy. – 2022. – T. 3. – №. 2.
15. G.A.Onoprienko, A.V.Dreval', L.A.Marchenkova, E.Yu.Polyakova, I.V.Kryukova. Sovremennye podhody k profilaktike osteoporoza» (posobie dlya vrachej) [Modern approaches to the prevention of osteoporosis "(a manual for doctors)] //Moskva-2004.42 s
16. L.A.Martchenkova, A.V.Dreval, E.U.Polyakova, L.P.Ermakova,V.P.Buzulma Intermitten tregimen of salmoncal citomnin the treatment of glucocorticoid-mducedosteoporosis (GIO) // Osteoporosis 2004. V1 5(suppl1) P.S 84
17. L.A.Marchenkova, A.V.Dreval', E.Yu.Polyakova, N.K.Cherejskaya, N.M Mylov, I.P.Ermakova, V.P.Buzulina Sostoyanie kostnoj tkanii faktory riska osteoporoza u zhenshchin v postmenopauze, prinimayushchih sistemnye (SGK) ili ingalyacionnye glyukokortikoidy (IGK) [State of bone tissue risk factors for osteoporosis in women in postmenopausal women taking systemic (SGC) or inhaled glucocorticoids (IGC).] // Sborniktezisov 2-go Rossijskogo kongressa po osteoporozu, 29 sentyabrya-1oktyabrya 2005 g S 179.
18. Dreval' A.V. ,Marchenkova L.A.,Polyakova E.Yu.Osteoporoz pri endokrinnyh zabolevaniyah // Materialy XV Rossijskogo simpoziuma po hirurgicheskoj endokrinologii 14-16sentyabrya 2005 Ryazan' S 135-137.
19. Richelson L.S. et al. Relative contributions of aging and estrogen deficiency to postmenopausal bone loss // N.Engl. J. Med. – 2008. – Vol. 311. – N 20. – P. 1273-1275,
20. Nilas I. et al. Bone mass and its relationship to age and the menopause// J. Clin. Endocrinol. Metab. – 2007. – Vol. 65. – N 4. – P. 697-702
21. Nilas I. et al. Bone mass and its relationship to age and the menopause// J. Clin. Endocrinol. Metab. – 2007. – Vol. 65. – N 4. – P. 697-702
22. Christiansen C. Hormone replacement therapy and osteoporosis// Maturitas. – 2006 – Vol. 23. – supp.1. – P.S71-S76
23. Amonova Madina Furkatovna. (2022). EFFECT OF VITAMIN D DICTION ON BONE MINERAL DENSITY IN MENOPAUSA WOMEN. World Bulletin of Public Health, 7, 121-123.
24. Vashchuk A.V. Hirurgicheskoe vyklyuchenie funkcii yaichnikov i risk razvitiya ishemicheskoj bolezni serdca [Surgical shutdown of ovarian

World Bulletin of Public Health (WBPH)
Available Online at: https://www.scholarexpress.net
Volume-19, February 2023
ISSN: 2749-3644

function and the risk of coronary heart disease] : avtoref. dis.kand. med. nauk.-M., 2006.-25 s.

25. Furkatovna, Amonova Madina. "Vitamin D Deficiency in Menopausa Women." The Peerian Journal 5 (2022): 77-80.
26. Pokul' JI.B., Evtushenko I.D., Kolomiec JI.A. Metabolicheskie narusheniya u zhenshchin v sostoyanii postovariektomii [Metabolic disorders in women in the state of postovariectomy] // Mat' i ditya : materialy III Region, nauch. Foruma (Saratov).-M., 2009 S. 214.
27. T.A.Dushenkova, K voprosu o profilaktike osteoporoza/ DadaliV.A. [On the prevention of osteoporosis] // Materialynauchno-prakticheskoj konferenci i 20-27 aprelya 200 4 goda \"Problemy ukrepleniya zdorov'ya i profilaktika zabolevanij\",SPb,2004,s.85-86