

These recommendations are not innovative, but they remind young people of need to maintain reproductive health and can become part of sex education materials.

LIST OF REFERENCES

1. Девярых, С. Ю. Актуальные вопросы сохранения репродуктивного здоровья подростков и молодежи / С.Ю. Девярых, Н.П. Жукова, О.С. Зыкова. – Витебск: Социальное воспитание, 2015. – 72 с.
2. Прохорова, О.В. - Репродуктивное поведение студенческой молодежи: мифы и реальность / О.В. Прохорова, И.В. Лаврентьева, Т.А. Обоскалова // // Вестник Уральского государственного медицинского университета. – 2015. – Т. 3, № 2. – С. 253–256.
3. Рахматулина, М.Р. Инфекции, передаваемые половым путем, и их влияние на репродуктивное здоровье детей и подростков / М.Р. Рахматулина, А.А. Шашкова // Вестник дерматологии и венерологии. – 2013. – Т. 89, № 4. – С. 30–37.
4. Симаходский, А. С. Репродуктивное здоровье подростков: проблемы сохранения / А.С. Симаходский, М.Ф. Ипполитова // Российский педиатрический журнал. – 2016. – №6. – С. 373–380.
5. Междисциплинарный подход к улучшению репродуктивного здоровья подростков и взрослого населения / А.Д. Каприн, О.И. Аполихин, А.В. Сивков [и др.] // Эпидемиология и вакцинопрофилактика. – 2022. – Т. 21, № 1. – С. 103–109.

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УДК: 616.71-008.1

РАСПРОСТРАНЕННОСТЬ ДЕФИЦИТА ВИТАМИНА D У СТУДЕНТОВ

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Аннотация

Введение. Витамин D, по-другому – кальциферол, регулирует обмен веществ. Дефицит витамина D приводит к вымыванию кальция и фосфора из костей. В детском возрасте на фоне дефицита витамина D развивается рахит, во взрослом – размягчение костной ткани (остеомалация) и разрежение костной ткани (остеопороз). **Цель исследования** – изучить распространенность дефицита витамина D на основании показателей распространенности рахита и остеомалации. Провести анализ частоты встречаемости данной проблемы на исследуемых группах. **Материал и методы.** Материалом исследования послужили студенты Российских университетов. Методы исследования – сбор статистических данных и статистическая обработка результатов. **Результаты.** Большая часть пациентов имеет здоровые показатели, но у некоторых наблюдаются патологии. **Выводы.** Результаты дают понять об актуальности дефицита витамина D среди населения.

Ключевые слова: витамин D, обмен веществ, рахит, остеомалация.

PREVALENCE OF VITAMIN D DEFICIENCY IN STUDENTS

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Abstract

Introduction. Vitamin D, also known as calciferol, regulates metabolism. Vitamin D deficiency leads to leaching of calcium and phosphorus from bones. In childhood, rickets develops due to vitamin D deficiency; in adults, softening of bone tissue (osteomalacia) and thinning of bone tissue (osteoporosis) develop. **The aim of the study is** to study the prevalence of vitamin D deficiency based on the prevalence rates of rickets and osteomalacia. Conduct an analysis of the frequency of occurrence of this problem in certain groups. **Material and methods.** The research material was students of Russian universities. Research methods – collection of statistical data and statistical processing of results. **Results.** Most patients have healthy indicators, but some have pathologies. **Conclusion.** The results highlight the relevance of vitamin D deficiency among the population.

Keywords: vitamin D, metabolism, rickets, osteomalacia.

INTRODUCTION

Metabolic disorders lead to vitamin D deficiency and, accordingly, to the disease in question – osteomalacia. The causes of improper metabolism are: lack of money for medicines, lack of food resources containing vitamins, severe environmental conditions, geographical human habitat (in the far north – vitamin D deficiency, living far from the sea or ocean – lack of seafood, and therefore iodine and phosphorus), pathologies, genetic diseases, ignorance of the population about the effect of vitamins on the regulation of metabolism. There is no exact data on the prevalence of osteomalacia. The prevalence of osteomalacia has not been sufficiently studied due to the fact that it is often confused with osteoporosis. As a result, patients with osteomalacia are diagnosed with “osteoporosis” and treated with anti-osteoporotic drugs, which is not only not pathogenetically justified, but can also be harmful [1]. A conclusive diagnosis in the absence of obvious chemical reactions can be made only on the basis of research results using special morphological methods for studying non-demineralized bone tissue samples. There are only a few laboratories conducting such research all over the world. This problem makes it almost impossible to conduct epidemiological studies and creates difficulties in diagnosing osteomalacia. In widespread clinical practice, bone loss is diagnosed using dual-energy X-ray absorptiometry [2]. Osteomalacia is diagnosed using densitometry, X-ray examination and blood biochemistry. Most of the respondents in the course of the study are from the Ural and Siberian Federal Districts, where studies on the prevalence of osteomalacia have not been conducted (table 1). Thus, this topic remains relevant. In the course of the study, students of Russian universities were interviewed by online voting in Google Forms. As a result, tables and 2 pie charts were compiled in Microsoft Excel 2016, on the basis of which an analysis of the collected data was made.

The aim of the study is to analyze the frequency of occurrence of these diseases (rickets and osteomalacia) in the study groups in connection with the geographical place of residence of the respondents.

MATERIAL AND METHODS

107 people participated in the study: The inclusion criteria were the age of the students, the educational direction of the universities. The exclusion criteria were students under the age of 18, students of non-medical and non-biological universities. The survey was conducted based on the diagnoses of rickets and osteomalacia. The survey took into account: which city (region) the student came from, whether he had rickets in childhood, was or is currently diagnosed with osteomalacia. The survey was conducted in an anonymous form, and informed consent to the use of the survey results was indicated. The methods used in conducting the study: Statistical methods.

RESULTS

67% were female, 33% were male, among whom there were 2% of people under the age of 18, 56% from 18 to 22 years old, 28% from 23 to 25 years old, 14% from 25 and older.

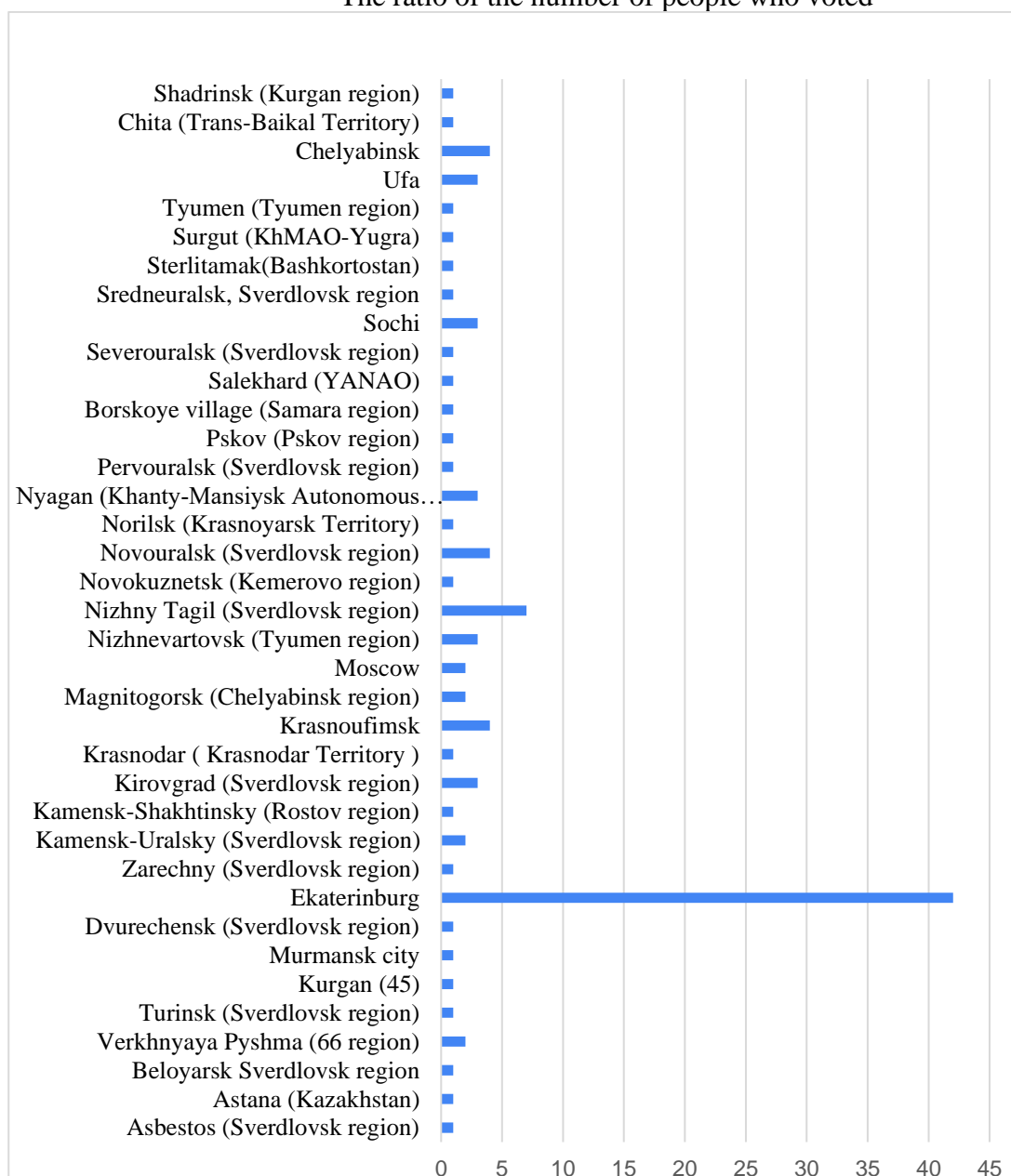
79% are students of medical and biological universities who have an understanding of the pathogenesis of vitamin D deficiency. The exclusion criteria were students under the age of 18, 21% were students of non-medical and non-biological universities.

86% of all respondents regularly take vitamin D.

According to the results of the data, it can be noted that two out of four people who had rickets in childhood were diagnosed with osteomalacia. This indicates that people with vitamin D deficiency may develop osteomalacia. This corresponds to the literature data. Fr. write about this in their research. O. Golunina, M.F. Holick.

Table 1.

The ratio of the number of people who voted



*Notes: YANAO - Yamalo-Nenets Autonomous Okrug, KhMAO - Khanty-Mansiysk Autonomous Okrug.

Statistical variability of the data (Table 1) shows that from the KhMAO and the Tyumen Region - 7% of people, from the Sverdlovsk Region - 66%, from the Chelyabinsk Region - 6%, from the Moscow Region - 2%, from the Kurgan Region - 2%, from the Republic of Bashkortostan - 4%, from the Krasnodar Territory - 4%, from the Samara Region - 1%, from the YANAO - 1%, from the Pskov Region - 1%, from the Krasnoyarsk Territory - 1%, from the Kemerovo Region - 1%, from the Rostov Region - 1 %, from the Murmansk region - 1%, from the Republic of Kazakhstan - 1%, from the Trans-Baikal Territory - 1%.

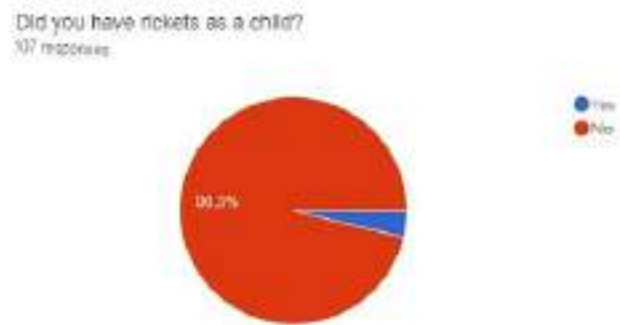


Fig.1 Results of a survey on the prevalence of rickets

4 people (3.7%) had rickets – these are students from the cities of Nizhnevartovsk (1 person), Norilsk (1 person), Sredneuralsk (1 person), Nizhny Tagil (1 person) (fig. 1).

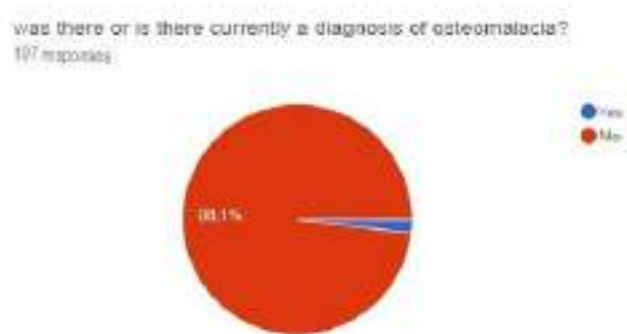


Fig. 2 Results of a survey on the prevalence of osteomalacia

2 people (1.9%) were diagnosed with osteomalacia – these are students from the cities of Nizhnevartovsk and Norilsk (fig. 2).

DISCUSSION

5 literary sources were studied. Osteomalacia in adults most often develops due to severe vitamin D deficiency of any etiology, less often against the background of kidney pathology, mesenchymal tumors secreting fibroblast growth factor 23, hereditary metabolic diseases of the skeleton [3].

The correctness of the results of the study of the prevalence of osteomalacia among the population based on the data obtained using the survey is extremely problematic, since this method does not allow differentiating the causes of a decrease in mineral density (in rickets, osteomalacia or osteoporosis). Indirect facts should also be taken into account when assessing the prevalence of osteomalacia. First of all, this applies to vitamin D deficiency, the main cause of osteomalacia, which affects about 1 billion people to varying degrees. This deficiency is caused by insufficient insolation, skin pigmentation, malnutrition, decreased vitamin D synthesis during aging, etc. [4]. That is why M.F. Holick suggests that a similar number of the world's population suffers from osteomalacia at different levels of its development, and in most cases without clinical manifestations [1]. Given the most common causes, this diagnosis is most often absorbed by more general diagnoses, such as rickets. However, recent medical statistics indicate that vitamin D deficiency (and this is only one of several known pathogenetic factors of osteomalacia) is detected in 80% of the population of the Russian Federation when averaging all age categories and all regional groups. Only in recent years have there been isolated epidemiological studies that have shown that osteomalacia is a fairly common phenomenon and can play a significant role in the epidemiology of low-energy fractures in people belonging to high-risk groups. Thus, E.M. Lewiecki and co-authors, analyzing the reports made at the symposium on osteology, note that in conditions of non-selective autopsy, osteomalacia occurs in 1% of cases, but reaches 18% among people living in a nursing home or patients with hip

fractures [5]. The results obtained correspond to the literature data (1.9% of the survey with a diagnosis of osteomalacia, 86% take vitamin D with food, respectively, when stopping the use of vitamin D, these people are susceptible to vitamin D deficiency).

CONCLUSION

Having analyzed the frequency of occurrence of these diseases (rickets and osteomalacia) in the study groups in connection with the geographical place of residence of the respondents, it is worth noting that rickets and osteomalacia are quite rare diseases in Russia. The dynamics of increasing vitamin D deficiency can be traced from southern latitudes to northern latitudes: two people from the Middle Urals had rickets, two more from more northern latitudes were diagnosed with osteomalacia. If we compare the average figures in Russia and in the Ural Federal District and the Siberian Federal District, then in the latter the incidence of osteomalacia diagnosis and susceptibility to vitamin D deficiency is higher.

LIST OF REFERENCES

1. Аврунин, А. С. Остеопороз и остеомалиция - клинико-диагностические проблемы / А.С. Аврунин // Травматология и ортопедия России. – 2014. – Т. 74, №4. – С. 68–76.
2. Johnston, C. C. Clinical use of bone densitometry / C.C. Johnston, C.W. Slemenda, L.J. Melton 3rd // The New England Journal of Medicine. – 1991. – Vol. 16, № 324. – P. 1105–1109.
3. Голоунина, О. О. Остеомалиция в практике эндокринолога: этиология, патогенез, дифференциальная диагностика с остеопорозом / О. О. Голоунина, Г. Е. Рунова, В. В. Фадеев // Остеопороз и остеопатии. – 2019. – Т. 2, № 22. – С. 23–31.
4. Holick, M. F. Optimal vitamin D status for the prevention and treatment of osteoporosis / M. F. Holick // Drugs Aging. – 2007. – Vol. 12, № 24. – P. 1017–1029.
5. Proceedings of the Eighth Annual Santa Fe Bone Symposium, August 3-4, 2007 / E. M. Lewiecki, J. P. Bilezikian, C. Cooper [et al.] // Journal of Clinical Densitometry. – 2008. – Vol. 2, № 11. – P. 313–324.

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КАРЦИНОМА ШЕЙКИ МАТКИ

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Аннотация

Введение. Рак шейки матки – злокачественная опухоль, исходящая из слизистой оболочки шейки матки. Несмотря на успехи, достигнутые в понимании этиологии и патогенеза рака шейки матки, а также наличие сформировавшихся подходов к профилактике, диагностике и лечению данное заболевание по-прежнему остается одной из актуальных проблем современной онкогинекологии. **Цель исследования** – установить проблемы профилактики и ранней диагностики рака шейки матки. **Материал и методы.** В исследовании был использован метод анализа характеристики заболевания, его типов и способов профилактики. **Результаты.** В результате исследований, было выявлено, что в последние несколько лет болезнь «помолодела», тем самым сейчас ей подвержены женщины от 20 до 80 лет. Таким образом, на данный момент в структуре онкогинекологических заболеваний рак шейки матки занимает 3-е место после рака молочной железы и рака эндометрия. **Выводы.** Для предотвращения дальнейшего распространения рака шейки матки необходимо установление оптимального подхода к профилактике.

Ключевые слова: рак шейки матки, вирус папилломы человека (ВПЧ), цервикальный канал, метастазы, опухоль.

CERVICAL CANCER

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