

The use of diagnostics according to R. Voll in the examination and complex treatment of patients with diseases of the musculoskeletal system in

occupational pathology

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Occupational pathology of the musculoskeletal system occupies a leading place in the structure of occupational diseases. According to a number of studies, unfavorable production factors contribute to the early development of osteoporosis (Verbovoy A.F., 2002; Kosarev V.V., 1995; Lotkov V.S., 2000; Frolov S.G., 1992). Among the diseases of the organs of movement, the most important is osteoporosis (damage to the hip, spine) due to its high prevalence, disability, significant mortality from complications.

Osteoporosis (OP) is a metabolic disease of the skeleton, the incidence of which increases with age and is characterized by a progressive decrease in bone mass per unit volume and a violation of the microarchitectonics of bone tissue, leading to an increase in bone fragility and a high risk of bone fractures. As can be seen from the definition, the basis of the disease is the loss of bone mass, which occurs gradually, secretly and is often diagnosed after fractures, which gave reason to call OP a "silent epidemic".

According to forecasts, by 2010 the number of hospitalizations for only hip fractures against the background of OP will amount to 1.3 million per year. Moreover, 25% of patients with hip fractures will die, and about the same as a result of treatment will be able to restore physical activity to the level preceding the fracture. In 50% of cases, patients with fractures will become disabled, requiring significant material costs and outside care.

Fractures of the vertebral bodies are one of the classic signs of osteoporosis, and their manifestations in the form of back pain, dysfunction and spinal deformities determine the degree of disability. According to a multicenter European study on spinal OP, in which Russia (Institute of Rheumatology of the Russian Academy of Medical Sciences) took part, in most European countries in the mid-90s, the frequency of vertebral fractures in persons aged 50–79 years was 12%, in Russia - an average of 11.8%. Fluctuations ranged from 6.2% in the Czech Republic to 20.7% in Sweden. At the same time, a decrease in bone density was recorded in 85.7% of women in the 50–54 age group and in 100% of men over the age of 75.

Due to the high prevalence and difficulty of diagnosing the initial stages of osteoporosis, we made an attempt to study the state of the skeletal system using R. Voll's method in those working under conditions of systematic exposure to vibration and toxic aerosols.

Materials and methods

30 miners of an underground mine for the extraction of copper-zinc pyrite ores, who work in a cooled microclimate and

are subject to physical stress, vibration and polymetallic dust. The length of service of the surveyed was from 5 to 15 years, the age - from 23–49 years (average age - 38.5). The purpose of the survey was to diagnose osteopenia in the workers described above.

Along with the generally accepted diagnostic methods, namely: densitometry and biochemical parameters of bone metabolism (the level of calcium and phosphorus in urine and blood, alkaline phosphatase, parathyroid hormone, calcitonin, cortisol, estradiol, ACTH, testosterone), we used R. Voll's diagnosis on the apparatus "MINI-EXPERT-" on the following classical points: Su 1b KTI, Su2 Ti, Zhp29 3 TI, Mp 12 STI, Mn 11 STI in order to study the functional state of bone tissue. Further, these measurement parameters were combined with each other.

Research results

Almost in all studies, there was a correlation between the diagnostic data according to R. Voll and early osteopenic syndrome in the examined persons using traditional methods.

At the same time, at the given points during measurements, deviations of the arrow up to 45 cu were observed. with the subsequent fall of the arrow by 15–20 USD.

Of the surveyed persons, 22 workers were diagnosed with osteopenic syndrome, which was 73%. These studies have shown the great importance of this method and the issues of prevention came to the fore.

The identified patients underwent complex correction of bone metabolism disorders. In doing so, we took into account the generally accepted approaches to the prevention of osteoporosis and osteoporosis.

As a primary prophylaxis, we used frequency therapy according to the programs:

E12 (100Hz) - at an intensity of 45 units. and E105 (200 Hz) for decalsification foci;

E101 (70 Hz) - bone cell renewal;

E12 (100 Hz) - bone skeleton; E145 (100 Hz) bone structure;

E132 - spine, E10, 12, 264 (50 Hz) cervical and lumbar regions; E12, 73, 120, 154, 247 (50 Hz) - shoulder joint;

E123 (50 Hz), E128 (52 Hz) - calcium deficiency;

E364 (65 Hz) - arthralgia;

E714 (70 Hz) - normalization of testosterone levels, since the patients we observed were always deficient in this hormone.

Additionally, homeopathic remedies were used: Calcium phosphoricum D10, D12; Calcium carbonicum D10; D30.

As a secondary prevention of osteoporosis, we prescribed: calcium preparations at a dose of 1500 mg per day for 3 months, trace elements (magnesium, zinc, etc.), alfacalcidol at a dose of 0.5–1.0 µg per day.

A diet enriched with calcium and trace elements was prescribed. Conducted a conversation with each patient about an active lifestyle, regular physical exercise with moderate stress, with the exception of alcohol, smoking, coffee.

Reexamination of patients was carried out every 3 months using Total complex diagnostic methods. The best indicators bone simulations were observed after correction. 3-month complex

conclusions

Thus, the electropunctural diagnostician ica according to R. Voll can It can be successfully used for early diagnosis and therapeutic correction of bone metabolism in workers in hazardous industrial conditions, taking into account the constitution, functional and reserve capabilities of the organism.

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