

Introduction. The actuality of the studied subject is conditioned by the increase of the prevalence of gout. Gout arises following the deposition of uric acid crystals in joints as a consequence of hyperuricemia. Frequent co-morbidities, non-compliance of the patients to treatment and the contribution to other organ involvement: cardiovascular diseases, severe nephropathy, disability, all these are major problems that make gout control difficult. The drugs of choice for acute gouty arthritis are nonsteroidal anti-inflammatory drugs (NSAID), colchicine and corticosteroids. Treatment with xanthine oxidase inhibitors or uricosuric drugs is indicated for the long term and the end target is the value of uric acid <360 $\mu\text{mol/l}$, and even 300 $\mu\text{mol/L}$ in patients with advanced tophaceous gout.

Aim of the study. Analysis of uric acid lowering therapy, prophylactic treatment of gout flairs and treatment strategy in acute gout attack.

Materials and methods. A retrospective study was done on patients diagnosed with gout and hospitalized in the arthrology department of the Republican Clinical Hospital for the year 2018. In the number of 66 patients, 56 of the being males and 10 females, having average age - 58 years.

Results. It was found that the average age of the disease debut was 44 years for males and 52 for females. Before hospitalization as the basic treatment 77% of the patients used allopurinol and 23% - febuxostat. 45% of them didn't administer the treatment on a regular basis, among this group the average level of uric acid was 553 $\mu\text{mol/l}$. On the other side, for the group which used to follow to treatment (55%) this indicator was 401 $\mu\text{mol/l}$. In the hospital for the acute gout attack in 65% of cases NSAID were used, in 3% - colchicin and the other 29% - combined therapy (NSAID and colchicin). In 53% of cases intraarticular corticosteroids were used. As a basic treatment it was found that for the 83,4% was indicated allopurinol and for the 16,6% febuxostat.

Conclusions. I have found correlation between the level of uric acid and compliance with the treatment. Also studied treatment methods of gout depends on the stage of the disease, age of patient, and concomitant diseases.

Key words: gout, treatment, uric acid.

177. OSTEOPOROSIS IN RHEUMATOID ARTHRITIS

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Introduction. Osteoporosis is a disease where bones lose their bone mineral density (BMD) which causes bone fragility and leads to fractures, Rheumatoid arthritis (RA) is an autoimmune inflammatory disease that affects the joints symmetrically and is known to cause secondary osteoporosis

Aim of the study. To study literatures that focus on the risk factors of osteoporosis and the correlation between it and rheumatoid arthritis.

Materials and methods. A literature search using, PubMed, Medscape and the national scientific information archive was performed. among the most relevant articles we selected 70, the data were analyzed by content structure and summarized, as well as statistical analysis where possible .

Results. In patients with RA four biomarkers are found to predict fracture sites, Tartrate-resistant acid phosphate 5b (TRACP-5b), undercarboxynated osteocalcin (Uc-OC) and bone specific alkaline phosphate (BAP) are able to realize both BMD and bone quality while homocysteine is able to realize only bone quality, In RA patients annual bone mineral density changes are $0.14 + 2.70$ in lumbar spine, $0.46 +$ in proximal hip and $1.14 + 1.85$ in forearm. Some studies show that in lumbar spine Homocysteine is the significant predictor for fractures, while in the proximal hip and forearm homocysteine does not have any significance. The most potent predictors for hip and forearm fractures are DAS28-ESR, blood pressure and Vitamin D levels other authors consider a better predictor to be ACPA and Methotrexate dosage use. Another hypothesis suggests that mycobacterium Avium Paratuberculosis (MAP) infection associated with TNF polymorphisms in patients with rheumatoid arthritis might cause secondary osteoporosis and it was found that the association between MAP infection in patients with rheumatoid arthritis and a risk for development of osteoporosis.

Conclusions. Osteoporosis is a common condition diagnosed in patients with RA. Secondary osteoporosis due to RA depends on the disease activity, ACPA level, MTX dosage. Some biochemical markers, as homocysteine, TRACP-5b, Uc-OC and bone specific alkaline phosphate can serve as predictors for osteoporotic fractures at different sites

Key words: osteoporosis, rheumatoid arthritis, biomarkers, fracture risk, hip, forearm, lumbar spine, bone mineral density

178. ASSOCIATION BETWEEN ESSENCIAL HYPERTENSION AND BONE MINERAL DENSITY

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Introduction. With society trending towards aging and unhealthy lifestyle changes the prevalence rate of essential hypertension (EH) and osteoporosis (OP) increases every year, to a point where they have become the two most common diseases in the world.

Aim of the study. To highlight the relationship between essential hypertension (EH) and bone mineral density (BMD).

Materials and methods. A systematic review on the published literature was conducted. 17 articles on the topic of association between EH and BMD were selected after searching PubMed, Medline, Medscape, and Google Scholar. The data were analysed and statistically compared .

Results. The 17 articles used have a total of 39,491 patients. Of these, 13,375 were patients with EH and 26,116 were patients without EH. The most relevant meta-analysis results showed that EH can reduce the BMD of the lumbar spine (95% CI: $-0.08 \sim 0.01$, $P=0.006$), femoral neck (95% CI: $-0.09 \sim -0.02$, $p = 0.001$), ward's triangle (95% CI: $-0.45 \sim -0.25$, $p=0.000$), femoral intertrochanteric (95% CI: $-0.90 \sim -0.64$, $p = 0.000$), calcaneus (95% CI: $-0.31 \sim -0.18$, $p = 0.000$) and distal forearm (95% CI: $-0.09 \sim -0.03$, $p = 0.000$), but EH cannot reduce the BMD of the femur rotor (95% CI: $-0.07 \sim 0.24$, $p = 0.273$). Another valuable study showed that EH can reduce the BMD of the lumbar spine (95% CI: $-0.11 \sim -0.03$, $p = 0.000$) and femoral neck (95% CI: $-0.11 \sim -0.07$, $p = 0.000$) in Asian populations. In non-Asian populations, EH