Osteoporosis in rheumatoid arthritis patients

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Abstract: Introduction: Osteoporosis (OP), in terms of reduced BMD, and fractures are a well-known complication of rheumatoid arthritis (RA).

Purpose: to determine the frequency of osteoporosis in patients with rheumatoid arthritis (RA) and to assessment the association of body mass index (BMI) and the bone mineral density (BMD)

Material and Methods: We studied 94 patients (80 women and 14 men), their mean age being 51.24 ± 8.33 years. BMD was measured at lumbar spine and proximal femur by dual x-ray absorptiometry technique. Osteoporosis was defined as BMD > -2.5 T score. The visual analogue scales (VAS) for pain and fatigue was used. Based on body mass index (BMI) rheumatoid arthritis patients classified as normal (BMI<25), overweight (BMI 25-29.9) and obese (BMI≥30).

Findings: 46 (48.94%) of rheumatoid patients were normal weight, 33(35.11%) overweight, 15 (15,96%) were classified as obese. The frequency of osteoporosis in the whole sample was 18 (19.15%) at lumbar spine and 25 (26.59% ) at femoral neck and increased linearly from Steinbrocker's functional stage 1 to IV (p<0.001). Patients with spinal or femoral osteoporosis were significantly older (p<0.001), had a lower body mass index (BMI) (p < 0.05), a significantly longer disease duration (p < 0.05) and a significantly higher Health Assessment Questionnaire (HAQ) score (p<0.001). Steroid use was associated with significantly lower lumbar and femoral BMD (p<0.001).

Conclusion: RA is a risk factor for the development of OP. This risk increases more with low weight, disease duration, severe course of the disease, and steroid intake.