



STUDY OF BONE MINERAL DENSITY AND VITAMIN D IN PATIENTS SUFFERING FROM RHEUMATOID ARTHRITIS

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Abstract

Rheumatoid arthritis is a chronic inflammatory disease of synovial tissue of joints of unknown aetiology marked by a symmetric, peripheral, polyarthritis. The present study shows the relation between BMD and Vitamin D in Rheumatoid arthritis patients.

Aims:

To study the Bone Mineral Density and vitamin D in patients suffering from Rheumatoid Arthritis, irrespective of duration, in comparison to age and sex-matched controls not having any musculoskeletal disorder.

Settings and Design:

Cross sectional study was conducted to study the Bone Mineral Densities and vitamin D levels among patients with Rheumatoid Arthritis attending the Medicine Outdoor and indoor at M.D.M. Hospital.

Methods and Material:

25 patients with Rheumatoid Arthritis and 25 controls. age and sex matched, were studied.

Inclusion Criteria:

All known cases of Rheumatoid Arthritis attending Medicine outdoor and patients who are admitted indoor.

Exclusion Criteria:

Patients with co morbidities like Diabetes Mellitus, Coronary Artery Disease, Hypertension, Chronic Kidney Disease and pre-existing Osteoporosis.

Methodology-

Comprehensive clinical evaluation, general physical examination, HAQ and DAS score, relevant laboratory investigations, DEXA scan at lumbar spine, vitamin D level estimation by CLIA were performed at MDM hospital.

Statistical analysis used:

Data was analyzed by Epi info statistical and multivariate analysis methods with the help of statistician.

Results:

Correlation of vitamin D levels with BMD was found to be statistically very significant (p value=.000). 70.58% osteoporotic subjects were vitamin D deficient. 22.22% osteopenic subjects were in vitamin D sufficient category while 66.67% subjects with normal BMD had normal vitamin D levels.

Conclusions:

Patients suffering from Rheumatoid arthritis were found to have low BMD and low vitamin D levels. The duration of Rheumatoid arthritis also contributes to the low levels of vitamin D and BMD in these patients.

Key-words: BMD-bone mineral density



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