

Severe osteoporosis in Colombian patients with systemic lupus erythematosus

Juan Camilo Diaz-Coronado^{1,2}, Sebastian Herrera¹, Deicy Hernandez-Parra¹, Laura BetancurVasquez², Daniel Gonzalez-Hurtado², Juanita Gonzalez-Arango², Laura Uribe-Arango², Maria Fernanda Saavedra Chacón², Jorge Lacouture-Fierro², Sebastian Guerra-Zarama², Santiago Monsalve², Jose David Serna Giraldo², Juan David Lopez², Julian Barbosa², Ricardo Pineda.Tamayo¹

1. Artmedica, Grupo de información clínica , Medellín, Colombia,
2. CES University, Departamento medicina interna, Medellín, Colombia

Background:

Osteoporosis predominantly affects post-menopausal women. There is an important percentage of the population that have additional risk factors that decrease bone mineral density. Patients with Systemic Lupus Erythematosus (SLE) are at increased risk for osteoporosis due to corticosteroid use and chronic inflammation. This population could have a higher prevalence of osteoporosis when compared to post-menopausal women of equal or older age. There is a paucity of information regarding bone mineral density and SLE in Latin America

Objectives:

To describe the prevalence and incidence of osteoporosis and osteoporotic fractures in a Colombian population with SLE

Methods:

We collected 464 clinical records of patients who met either the American College of Rheumatology 1997 or Systemic Lupus International Collaborating Clinics (SLICC) 2012 classification criteria for SLE between January 2015 and June 2019. The clinical, immunoserological, and damage parameters were monitored for one year. The diagnosis of osteoporosis was confirmed with densitometry by energy x-ray absorptiometry (DXA) and the presence of fragility fractures were measure according to the rheumatologist's report in the clinical record. The description of proportions and incidence rate of osteoporosis and fragility fracture was performed.

Results:

The mean age was 45 years, 96.5% were women and the mean disease duration was 12 years. Other clinical characteristics are shown in the table 1. The prevalence of osteoporosis was 13.8% with an incidence of 1.1 fragility fractures / 100 person-months in the general population with SLE. In postmenopausal women, over 50 years old the prevalence of osteoporosis was 28.4% with an incidence of 0.8 fragility fractures / 100 months person. In the densitometric characteristics, the mean bone mineral density was 0.772 gr / cm², T-score spine -2.9 and T-score femoral -2.6. SLEDAI mean was 1.5 (SD 2.92) and the SLICC mean was 1.

Table 1 clinical characteristics

	N	%
Active Smoking	83	17.8
Premature gonadal failure	8	1.7
Lupic Nephritis	178	38.4
Proteinuria >2.5grams/24hours	34	7.3
End Stage Renal Disease	16	3.4
Anti-dsDNA	146	31.4
Anti-Sm	110	23.7
Anti-Ro	138	29.7
Prednisone Cumulative Dose	2.8gr	–
Antimalarial	57	12

Conclusion:

Low bone mineral density and severe osteoporosis are prevalent in our cohort with SLE. We have found a fragility fracture rate of 1080 per 100.000 people, which is higher than the reported in the general population (53-443 per 100.000 people in women)

References:

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