

# How is bone doing in our lupus patients

## An observational study



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### INTRODUCTION AND AIMS

Patients with systemic lupus erythematosus (SLE) constitute a particularly vulnerable population due to loss of bone mineral mass. There are multiple factors, related to the disease, concerning the lack of vitamin D and carried out therapeutics, particularly long exposure to corticosteroids. Our study aims to evaluate the bone mineralization status of our SLE patients carrying out corticosteroids.

### METHODS

Observational study; patients with SLE diagnosis and follow-up in Nephrology and Medicine/Autoimmune Diseases outpatient consultations in CHUC-HG.

eGFR>60ml/min; 110 patients were identified, 38 met the criteria for inclusion.

Demographic data, disease duration, clinical presentation and therapeutic options (number of years of corticotherapy, vitamin D supplementation and usage of bisphosphonates)

25-OH Vitamin D (25-OHVitD) levels were measured and bone densitometry (BD) analysis was performed.

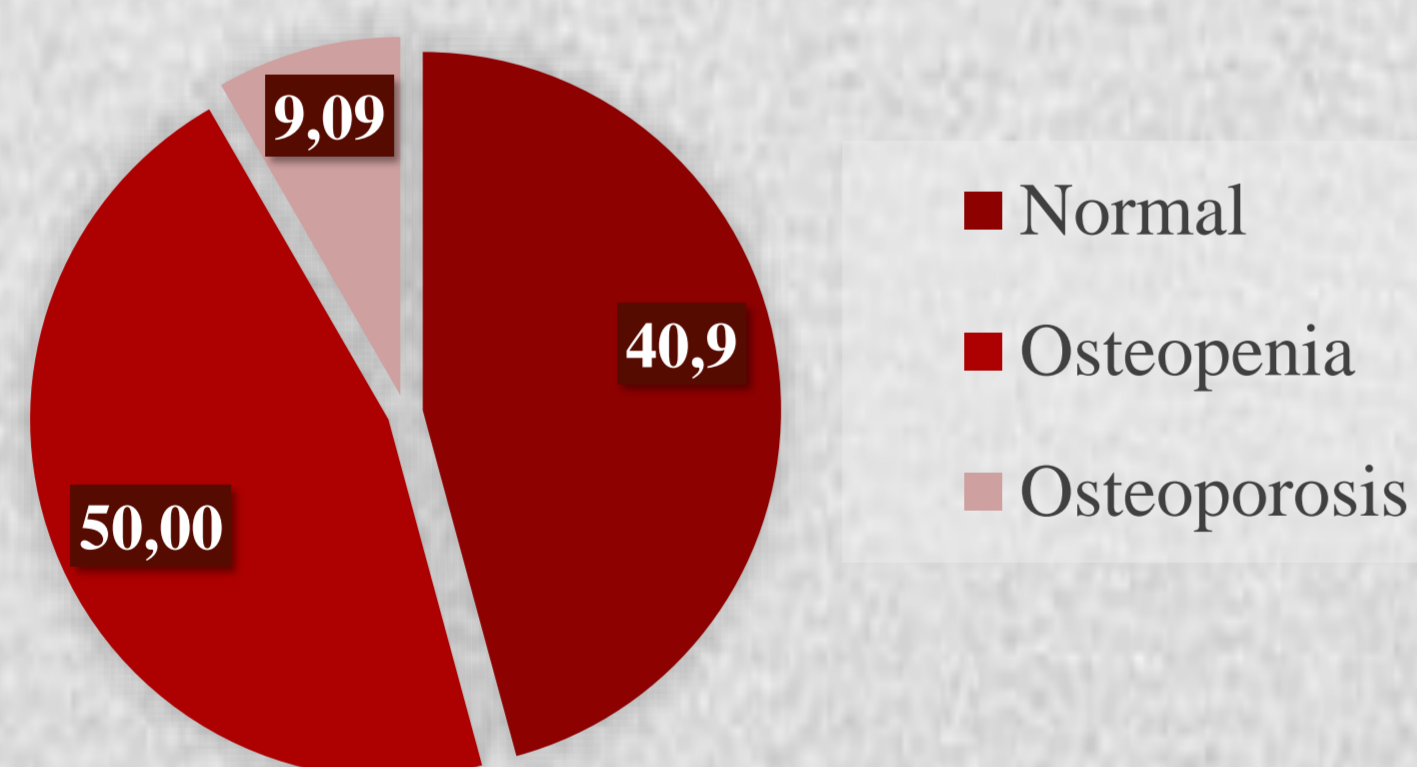
**Osteoporosis** T Score < -2.5, **Osteopenia** T score between -1 and -2,5, **Normal** T score > -1; Severe deficit 25-OHVitD <10ng/mL, slight deficit 25-OHVitD 10-20 ng/mL

22 patients performed bone densitometries

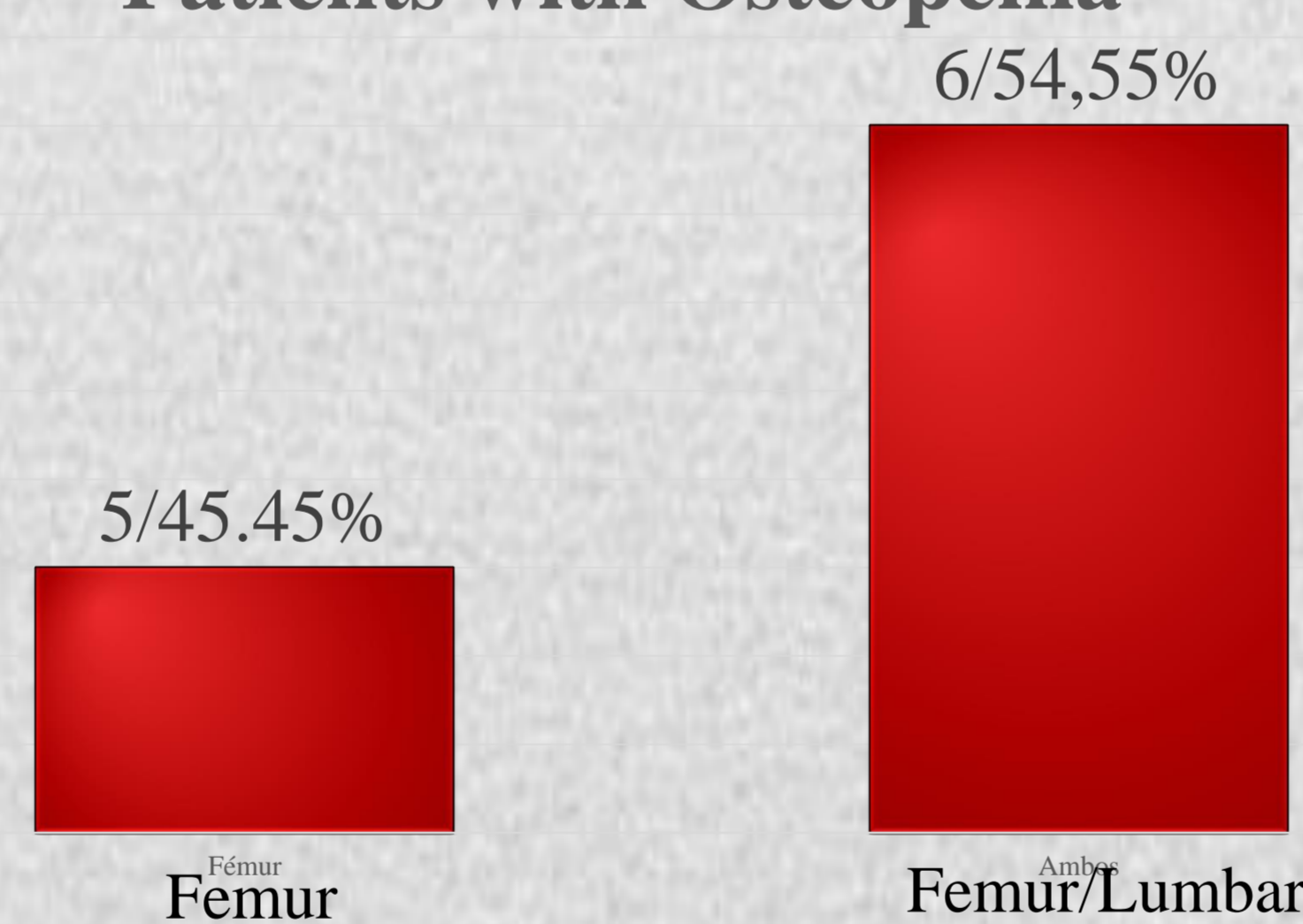
### RESULTS

**Median age : 46,2**  
**%Women: 76,3%**

Bone mineral disease



Patients with Osteopenia



**15/39% patients with vitamin D supplementation**  
**16/42% patients with vitamin D levels**

| Vitamin D levels | N. Patients/ % | Supplementation |
|------------------|----------------|-----------------|
| <10              | 2/12,5         | 0/0             |
| [10, 20]         | 9/56,25%       | 3/33,3%         |
| >20              | 5/31,25%       | 5/100%          |

#### No correlation

Number of years of corticotherapy and osteopenia/osteoporosis

#### No association

Bone mineral disease and gender

#### No statistically significant difference

Age, gender, number of years of corticotherapy between patients with osteopenia and patients without disease

### CONCLUSIONS

A preliminary evaluation of our lupus patients revealed that about half of our patients had osteopenia/osteoporosis despite a median age of 46.2 years; the vast majority had vitamin D deficit. Despite the recommendations for bone protection in patients using steroids only a minority (39%) was under vitamin D supplementation. The preliminary results of our study suggest the importance of regularly assessing the mineral bone status and vitamin D levels in SLE patients in order to establish preventive measures to avoid loss of bone mass.

**References:** M. D. E. Sanidad and S. S. E. Igualdad, "Guía de Práctica Clínica sobre Lupus Eritematoso Sistémico.," K. Almeded, E. H. Forsblad d', G. Kvist, C. Ohlsson, and H. Carlsten, "Prevalence and risk factors of osteoporosis in female SLE patients - Extended report," *Rheumatology*, vol. 46, no. 7, pp. 1185-1190, 2007; P. C.A., U. M.B., F. P.J., I. D., and G. D.D., "Osteoporosis in systemic lupus erythematosus: Factors associated with referral for bone mineral density studies, prevalence of osteoporosis and factors associated with reduced bone density," *Lupus*, vol. 13, no. 6, pp. 436-441, 2004.

