BONE MINERAL DENSITY EVOLUTION AFTER PARATHYROIDECTOMY IN PATIENTS WITH PRIMARY HYPERPARATHYROIDISM


INTRODUCTION
Primary hyperparathyroidism results in increased bone resorption. The presence of osteoporosis is at present an established surgery criteria.

OBJECTIVE
The aim of this study was to evaluate the changes in bone mineral density (BMD) after surgery in patients with primary hyperparathyroidism.

MATERIAL AND METHODS
Retrospective study of 58 patients with primary hyperparathyroidism treated by parathyroidectomy (PTX) from 2004 to 2012. We analyzed the percent change in BMD of spine, femoral neck and distal radius densitometry, 12 and 36 months after surgery.

RESULTS
Among the 58 patients enrolled, we obtained densitometry data of 26 patients after 12 months and 37 after 36 months. The average age of the patients was 61 ± 12 years and 70.7% were women (Figure 1). Baseline and one year after the parathyroidectomy biochemical characteristics are shown in Table 1.

- We observed an increased BMD at lumbar spine and femoral neck one year after surgery (+2.3% ± 5.1, p = 0.027; +5.7% ± 6.3, p = 0.000, respectively).
- Improvement at 36 months was also observed in both locations (+4.9% ± 7.4, p = 0.001; +8.5% ± 6.0, p = 0.000) (Figure 3).
- At the distal third of the radius, there were no changes in BMD in any of the follow-up times, although a slight increase at 36 months was observed (+0.96% ± 4.2, p=0.576). Sixteen of the 58 patients (27.6%) also were treated with bisphosphonates. There were no differences in changes of BMD between these patients and those who did not received bisphosphonates (Figure 4).

CONCLUSION
Femoral neck and spine BMD improved one and two years after surgery in patients with primary hyperparathyroidism. It would be interesting to evaluate the response to longer term.