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Management of Corticosteroid-Induced Osteoporosis: A Practical Approach for the Dermatologist[☆]



Manejo de la osteoporosis inducida por corticoides: enfoque práctico para el dermatólogo

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Glucocorticoid-induced osteoporosis is the most common form of secondary osteoporosis. Bone mineral density (BMD) is known to decrease with the prolonged use of oral glucocorticoids and there is evidence that treatment with a

5-mg or higher dose of prednisone or equivalent increases the risk of fracture by 75% after 12 weeks.¹⁻³ Risk of fracture should therefore be systematically assessed in all patients scheduled to receive glucocorticoid therapy for 3 months or longer.⁴ In addition to assessing age and baseline BMD (the main clinical indicators of fracture risk), the Spanish Society for Bone and Mineral Metabolism Research (Seiomm) recommends following a basic protocol before initiating therapy. This protocol includes a complete blood count, kidney and liver function tests, and measurement of 25 hydroxyvitamin D.⁴ Thyroid-stimulating hormone measurement and serum protein electrophoresis are also frequently indicated for estimating free drug concentrations in patients with hypoproteinemia. Measurement of 24-hour urinary calcium levels helps to detect hypocalciuria due to low uptake or malabsorption or hypercalciuria that may need treatment with thiazides.

Glucocorticoid-induced osteoporosis management should start with primary prevention measures. In addition to healthy lifestyle habits, patients taking glucocorticoids of any dose for longer than 3 months should be prescribed calcium (1000-1200 mg/d) and vitamin D (800-1000 IU/d) supplements. The single annual dose of vitamin D should be avoided as, paradoxically, it has been linked to an increased risk of fracture.⁵

Considering the early loss of BMD following the administration of steroids, initiation of anti-bone resorptive treatment with bisphosphonates prior to the onset of

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osteoporosis is considered acceptable in the following groups:

- Postmenopausal women and men aged ≥ 50 years taking glucocorticoids ≥ 5 mg/d for > 3 months.
- Premenopausal women and men aged < 50 years with a history of fragility fracture, a very low BMD ($-2.0Z$), and taking prednisone or equivalent at a dose of > 20 mg/d.^{4,5}

Alendronate (70 mg/wk) and risedronate (5 mg/d or 35 mg/wk) are the current drugs of choice. Bisphosphonates should be administered for the same duration as glucocorticoid therapy. There is no need to schedule rest periods as the risk of adverse effects, such as jaw osteonecrosis, is minimal in this setting compared with the potential benefits.⁵

Long-term follow-up of glucocorticoid-induced osteoporosis should ideally be interdisciplinary and include periodic evaluation of lifestyle habits, verification of the need for long-term glucocorticoid therapy, and annual

measurement of vitamin D levels and BMD by X-ray absorptiometry.

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