

Osteoporosis and osteopenia of the spine in rheumatic patients, treated with glucocorticosteroids.

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Introduction

The purpose of this study was to determine osteoporosis (OP) and osteopenia in patients with various rheumatic diseases depending on the duration of use glucocorticosteroids (GCS) and daily dose of GCS.

Methods

The study included 125 patients (90 women and 25 men) with various rheumatic diseases receiving GCS therapy. BMD was measured by DXA (Hologic). Patients were divided into 2 groups. Group I included postmenopausal women and men over 50 years (72 patients), group II- premenopausal women and men younger 50 years (30 patients). The T-score was determined in group I and the Z-score in group II respectively. As it known the loss of bone tissue is more in trabecular bone so we assessed BMD in the spine. In 23 patients (15 women, 8 men) data were normal. 102 patients (22 men, 80 women) had osteoporosis/osteopenia. Average duration of GCS-therapy - 6.8 years (from 2 months to 30 years).

Results

102 patients had OP or osteopenia (82% of all patients). There was no correlation between the duration of GCS-therapy and OP/osteopenia in both groups. There was positive correlation between the maximal daily dose of GCS and OP and osteopenia in group I ($r = 0,3$; $p < 0,05$). No correlation in group II. There was negative correlation between the minimal GCS daily dose and osteopenia ($r = -0,2$; $p < 0,05$) in group I.

Conclusion

The majority of the GCS-treated patients regardless of age have high risk of OP/osteopenia of the spine. There was 66% of osteoporosis and 35% of osteopenia in the spine in group I. There was a clear predominance of osteopenia in the spine (60% osteopenia vs. 40% OP) in group II. Duration of using GCS had no effect on the risk of the OP.