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BONE LOSS IN EARLY, ACTIVE RHEUMATOID ARTHRITIS: EFFECTS OF CORTICOSTEROIDS, GENDER AND MENOPAUSAL STATUS IN THE COBRA TRIAL

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The degree of bone loss in rheumatoid arthritis (RA) is still a matter of debate. Many clinical studies comprise mixed patient groups including men, pre- and postmenopausal women [with or without hormonal replacement therapy (HRT)]. These patients have variable disease duration and intensity of steroid therapy. In a double blind randomized trial, a group of patients with early, active RA was treated with sulfasalazine (SSZ, n = 79) or a combination of sulfasalazine + methotrexate + prednisolone (60 mg/d in week 1 tapered to 7.5 mg maintenance dose in week 7) during 6 months, followed by sulfasalazine alone (COMB, n = 76) (Lancet *1997; 350: 309–18*). Separate analyses of bone loss were performed in men, premenopausal women, and postmenopausal women with and without HRT. In a multiple regression analysis, including treatment, gender and menopausal status as factors, bone loss was significantly dependent on menopausal status (spine $p < 0.05$, femoral neck $p < 0.001$ and Ward's triangle $p < 0.05$). Premenopausal women ($n = 3$) lost no bone. Postmenopausal women without HRT ($n = 27$) lost significant amounts of bone at all sites after 56 weeks. This appeared more rapidly in the SSZ group but more pronounced in the COMB group, although differences between groups were not significant. Women in the COMB group on HRT (n = 8) lost little or no bone after 56 weeks in the spine [mean ± 95% CI: −0.6% (−3.6, 2.4)], trochanter [−0.5% (−3.8, 2.9)] and Ward's triangle [−1.3% (−9.2, 6.6)], but only in the femoral neck [−3.3% (−5.9, −0.7)]. In the SSZ group, not enough women had HRT for analysis. In men, only those in the COMB group (n = 22) lost bone, and only in the spine [after 28 weeks −1.5% (−3.1, 0.0) and after 56 weeks −2.2% (−4.1, −0.3)]. We conclude that in women with early active RA, postmenopausal status is a risk factor for significant bone loss in the spine and hip, irrespective of antirheumatic treatment regimen. HRT protected against bone loss, except in the femoral neck. In men, short-term corticosteroid therapy is a risk factor for bone loss in the spine only.