

Intra-articular injection of hyaluronate and indomethacin in rabbits with antigen-induced arthritis

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摘要

Abstract

Combined effects of hyaluronate and indomethacin in the treatment of rabbits with antigen-induced arthritis (AIA) were evaluated by assessing joint swelling, C-reactive protein (CRP) and prostaglandin E(2) (PGE(2)) levels with periodic intra-articular (ia) injections of hyaluronate alone (HA group) and with either a low or high concentration of indomethacin (LI-HA or HI-HA group). End-point analyses included matrix metalloproteinases-3 (MMP-3) activity and macroscopic and histological joint examinations. Results demonstrated that treatment in LI-HA and HI-HA groups resulted in statistically significant suppression of CRP, PGE(2,)and MMP-3 in comparison with those of HA group. Inhibition of serum CRP was only observed in LI-HA group. The order of serum MMP-3 inhibition was LI-HA>HI-HA>HA. Based on macroscopic and histological analyses of pannus formation, hyperplasia, inflammation, joint leakage and erosion, and loss of proteoglycan, the only statistically significant improvement was shown in LI-HA group compared to HA group and HI-HA group compared to control group.