

## [2005] [SAT0218] CLASS-EFFICACY OF HYALURONAN/HYLAN VERSUS PLACEBO IN KNEE OSTEOARTHRITIS: A COCHRANE REVIEW

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**Background:** Osteoarthritis (OA) is the most common form of chronic arthritis worldwide. Hyaluronan and hylan (HA) products provide opportunity for local treatment of individual OA knee joints.

**Objectives:** To evaluate the class-efficacy of HA products compared to placebo (PL) in the treatment of knee OA as part of a Cochrane review of viscosupplementation.

**Methods:** Electronic searches were conducted of EMBASE, MEDLINE, PREMEDLINE up to July 2003 and CENTRAL up to the 2Q of 2003. Human, randomised, controlled trials (RCTs) were included.

Methodological quality was assessed using the Jadad criteria by 2 reviewers. Data on the OARSI and OMERACT core set clinical outcome measures were extracted where possible. Weighted mean differences (WMD), based on unadjusted post-test scores, and 95% confidence intervals (CI) were calculated for continuous outcomes measured on the same scale. The standardised mean difference (SMD) and 95% CI were calculated for continuous outcomes measured on different scales. Relative risk was calculated for dichotomous outcome measures. Heterogeneity was tested with chi square test; when detected a random effect (RE) model was used rather than a fixed effect model. Analysis used RevMan 4.1.1 software.

**Results:** 37 RCTs included comparisons of HA and PL. Statistically significant differences were detected between HA and PL at 1-4 weeks (pain on weight-bearing (100 mm VAS) WMD (RE) was -7.92 (95% CI, -11.70 to -4.14)  $p=0.00004$ , Lequesne Index (0-24) WMD (RE) was -1.21 (95% CI, -2.19 to -0.22)  $p=0.02$ ), 5-13 weeks (pain on weight-bearing WMD (RE) was -12.97 (95% CI, -18.00 to -7.93)  $p<0.00001$ , WOMAC pain SMD was -0.33 (95% CI, -0.55 to -0.10)  $p=0.004$  and WOMAC function SMD was -0.56 (95% CI, -0.89 to -0.24)  $p=0.0007$ , Lequesne Index WMD was -1.30 (95% CI, -1.93 to -0.67)  $p=0.00005$ , flexion WMD was 7.60 (95% CI, 0.46 to 14.74)  $p=0.04$ , and 14-26 weeks (pain on weight-bearing WMD (RE) was -9.04 (95% CI, -14.83 to -3.24)  $p=0.002$ , WOMAC pain (100 mm VAS) WMD was -5.66 (95% CI, -10.06 to -1.26)  $p=0.01$ ) post-injection.

**Conclusion:** These data support the evidence for efficacy of this class of intervention on multiple efficacy variables. The beneficial effects are time and variable dependent. The pooled analyses address issues relating to class characteristics and may not be shared to the same extent by each individual HA product. The by-product analyses (data not shown) provide support for the use of those HA products for which the effect is not only statistically significant but also clinically important.

### Osteoarthritis Clinical aspects and treatment

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