[2005] [SAT0263] HYLAN G-F 20 (SYNVISC) VERSUS PLACEBO: COCHRANE REVIEW 2005

N. Bellamy[1], J. Campbell [2] , T. Gee [1] , V. Robinson [3] , R. Bourne [2] , G. Wells [4] [1]CONROD, University of Queensland, Brisbane, Australia, [2]Orthopaedics, Surgery, The University of Western Ontario, London, [3]Institute of Population Health, [4]Epidemiology and Community Medicine, University of Ottawa, Ottawa, Canada

Background: Osteoarthritis (OA) is the most prevalent chronic joint disorder worldwide, and is associated with significant pain and disability. Intra-articular (IA) hyaluronan/hylan (HA) is an established local therapeutic modality for the treatment of knee OA. The goal of therapy is to relieve the symptoms associated with inflammation and thereby reduce pain and disability.
Objectives: As part of a Cochrane review of viscosupplementation in knee OA, randomised controlled trials (RCTs) were reviewed to evaluate evidence for the efficacy of viscosupplementation with Hylan G-F 20 compared to placebo.
Methods: Electronic searches were conducted of EMBASE, MEDLINE, PREMEDLINE, Current Contents and CENTRAL. Human, RCTs involving Hylan G-F 20 compared to placebo, published prior to 1Q2004, were included. Trials were selected and data extracted by 2 independent reviewers. Methodological quality was assessed with the Jadad criteria by 2 reviewers. Data on OARSI core set measures were extracted. Weighted mean differences (WMD), based on unadjusted post-test scores, and 95% confidence intervals (CI) were calculated for continuous outcome measures.
Results: Seven RCTs met the inclusion criteria. Median methodological quality was 4 (range 4-5). Hylan G-F 20 was more efficacious than placebo at 1-4 weeks post-injection for pain on weight-bearing WMD (random effects [RE]) -13 mm on a 0-100 mm VAS (p=0.002) based on 6 RCTs. This difference was even greater at 5-13 weeks post-injection, -22 mm (RE) (p=0.0006) based on 5 RCTs, and at 14-26 weeks post-injection, -21 mm (RE) (p=0.006) based on 4 RCTs. Hylan G-F 20 was more efficacious than placebo at 1-4 weeks post-injection for pain at night, WMD -7 mm on a 0-100 mm VAS (p=0.003) based on 5 RCTs. This difference was even greater at 5-13 weeks post-injection, -11 mm (RE) (p=0.008) based on 4 RCTs, and at 14-26 weeks post-injection, -17 mm (p<0.00001) based on 3 RCTs. Hylan G-F 20 was more efficacious than placebo at 1-4 weeks post-injection for improvement in the most painful knee movement WMD 19 mm on a 0-100 mm VAS (p<0.00001) based on 4 RCTs. This difference was even greater at 5-13 weeks post-injection, 34 mm (RE) (p<0.00001). Hylan G-F 20 + oral placebo was more efficacious than arthrocentesis + oral placebo for WOMAC Function, WMD -9 mm on a 0-100 mm VAS (p=0.01)and for Lequesne Index WMD -1.60 on a 0-24 scale (p=0.02)(Dickson 2001). Hylan G-F 20 was more effective than placebo at 1-4 weeks post-injection for the variable designated treatment efficacy, WMD 22 mm on a 0-100 mm VAS (p<0.00001) based on improvement in 4 RCTs. This difference was even greater at 5-13 weeks post-injection, 35 mm (p<0.00001).
Conclusion: Evidence from this Cochrane review supports the superior efficacy of Hylan G-F 20 compared to placebo on weight- bearing pain, night pain, function and treatment efficacy in knee OA.

Osteoarthritis Clinical aspects and treatment

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