2017 Audit : Ostenil plus in the treatment of knee Osteoarthritis (OA) at Anglian Community Enterprise (ACE) MSK clinic.

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Purpose:
To assess the short term effects of Viscosupplementation ***Ostenil plus*** (OP) hyaluronic acid (HA) in the treatment of osteoarthritis (OA) of the knee.

Introduction:
Viscosupplementation is an intra-articular therapeutic modality for the treatment of knee OA based on the physiologic importance of hyaluronan in synovial joints. Its therapeutic goal is to restore the viscoelasticity of synovial hyaluronan, decrease pain, improve mobility and restore the natural protective functions of hyaluronan in the joint. HA via intra-articular injection is not recommended by NICE based on cost-effect analysis. Nevertheless, it is used in the world of elite Sports Medicine and, with certain restrictions, at the UK Military Medical Rehabilitation Centres.

We have used Ostenil HA intra-articular injections at ACE MSK clinic for a few years. Since the introduction of *OP* HA injection in 2014, as a way of monitoring response to the injections, patients were completing a well validated Knee Osteoarthritis Outcome Score (KOOS) before the treatment and at 3 months after injection.

KOOS consists of 5 subscales: Pain, Symptoms, Function in daily living (ADL), Function in sport and recreation (Sport/Rec) and knee related Quality of life (QOL). A normalized score (100 indicating no symptoms and 0 indicating extreme symptoms) is calculated for each subscale. The Minimal Important Change (MIC) is currently suggested to be 8-10. For the purpose of this Audit , Pain, Symptoms and QOL subscales were analysed.

Methods:

Any patient presenting with knee OA symptoms, was offered OP injection as an addition to the current usual treatment regime, which was varied from patient to patient. Patients who have not completed KOOS 1 or KOOS 2 at 3 month were excluded from the study. A knee X-ray, to evaluate the degree of OA severity, should have been performed within 12 months. All injections were done using landmark guided approach and were performed by experienced MSK Physicians and Extended Scope Practitioners. Some practitioners were injecting 1% lidocaine prior to OP injection.

Results: I present results from 33 patients.

Mean patient's age was 65.1 years. 12 (36.3%) patients were female and 21 (63.7%) patients were male. 14 (42.4%) patients had moderate OA changes, 10 (30.3%) patients had mild OA changes and 9 (27.3%) patients had moderately-severe to severe OA changes on X-ray.

Overall 66.7% of patients observed significant improvements on either Pain or Symptoms subscales.

18 (54.5%) out of 33 patients observed significant (10 or more points on Pain subscale) short term pain relief.

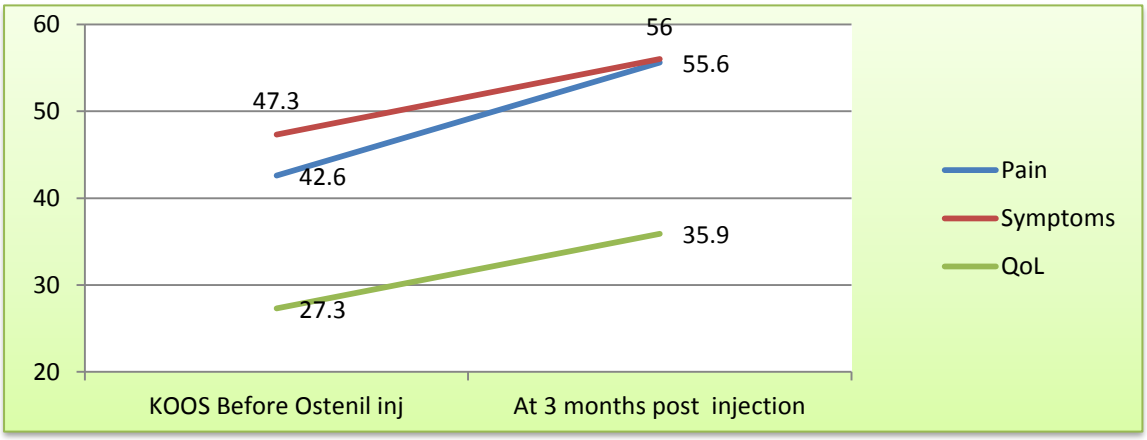
16 (48.5%) out of 33 patients reported significant (10 or more points on Symptoms subscale) short term symptomatic improvements.

14 (41.1%) out of 34 patients reported significant (10 or more points on QoL subscale) improvements in quality of life.

11 (33.3%) of patients observed no significant improvement in either pain or symptoms KOOS subscales at 3 months.

Average KOOS scores from 33 patients on pain, symptoms, and knee related Quality of Life showed significant improvements at 3 months post injections (Table 1).

Table 1. Average (mean) scores on pain, symptoms, quality of life subscales at the baseline and at 3 months post injection.



Overall results of this Audit showed that at least 66 % of patients reported some significant short term improvements in either symptoms or pain following single injection of Ostenil plus. None of the patients experienced any significant side effects (i.e. infection/allergic reaction) after injection.

Recommendations:

1. *Ostenil plus* injections can be beneficial for some patients. We can continue using OP for patients who responded well to the HA treatment in the past.

2. In new patients, OP injection can be considered after failed 40 mg Kenalog injection, provided there are no associated effusions or other lesions that can account for knee pain.

3. With improved selection of patients for HA treatment, we should repeat the audit to demonstrate higher rate of responders to OP injection.

4. As part of second audit, patients should have recorded BMI, KOOS, Oxford score, results of updated weight bearing knee X-ray including skyline view of PFJ. A side (medial or lateral) of injection should be recorded.

5. Where possible, because of reported higher accuracy, lateral intra-articular knee injection approach should be used.

References:

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