

# Efficacy of Two Hyaluronic Acid Preparations In Patients With Refractory Knee Osteoarthritis

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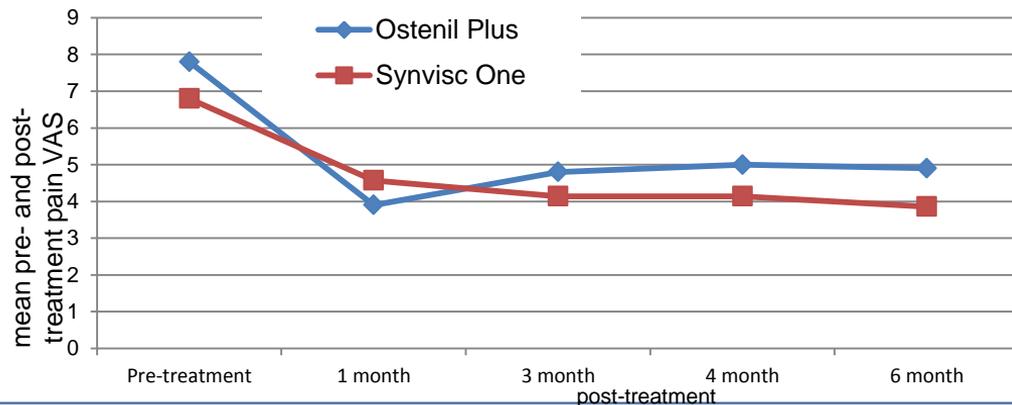
**Background:** Intra-articular hyaluronic acid (HA) for knee osteoarthritis (OA) is not recommended by NICE based on cost-benefit analysis, however, a Cochrane review found HA to be cost-effective for OA. In this study, we compared the efficacy of a single intra-articular injection of two synthetic preparations of HA: Synvisc One (£260), which was recently declined at Barts Health; and Ostenil Plus (£155) which was approved for the treatment of refractory knee osteoarthritis.

## Methods:

- ❖ All patients had knee OA (Kellgren Grade II to IV), refractory to NSAIDs, intra-articular corticosteroids and were unsuitable for knee replacement surgery
- ❖ All provided informed consent and received a single intra-articular injection of either Synvisc One or Ostenil Plus
- ❖ Visual analogue scale (VAS) pain scores were recorded on a scale of 0 (no pain) to 10 (worst pain) before and at 1, 3, 4 and 6 months after intra-articular HA injection
- ❖ Statistical analysis: paired samples student's t-test or two sample student's t-test was used to detect difference between before and after HA and between groups, respectively.

## Results:

- 33/38 patients with a mean age of 67.4 years (range 25-85) completed the study
- 20 patients received Ostenil to 32 joints
- 13 patients received Synvisc to 14 joints.
- No significant difference in VAS pain scores was noted between the groups before and at any time point post-injection ( $p>0.05$ ).
- All 4 patients < 50 years had an increase in post treatment VAS at 3, 4 and 6 months.



## Conclusions:

- ❖ Both Synvisc and Ostenil significantly improved VAS pain scores for up to 6 months in our cohort with no significant statistical difference between the two preparations. Therefore, HA injections may be a useful adjunct in the treatment of advanced, refractory knee osteoarthritis.
- ❖ A single injection of Ostenil Plus seems to be at least as effective, but cheaper than Synvisc One in our cohort.