E70. A COMPARISON OF TWO HYALURONIC ACID PREPARATIONS IN PATIENTS WITH KNEE OSTEOARTHRITIS

Maliha Shaikh[1], Venkat Reddy[1] and Dev Pyne[1]
[1]*Rheumatology Department, The Royal London Hospital, London, UK*

Background: Intra-articular HA for knee OA is not recommended by NICE based on cost-benefit analysis. However the debate continues as there is evidence from systematic reviews and meta-analyses such as the Cochrane Review, 2006 and the EULAR Taskforce Recommendations, 2003 for its effectiveness in pain reduction. Synthetic HA preparations may be of high molecular weight (Synvisc-like) or low molecular weight (Ostenil-like). Barts Health changed the funding approval from Synvisc One in 2011 to Ostenil Plus in 2013, based on the cost of an injection vial of £215 and £96, respectively. We therefore sought to audit the efficacy of each agent in real clinic patients after a single injection for knee OA.
Methods: Patients were deemed suitable for HA injection if they had confirmed OA of the knee (Kellgren grade II–IV), were unable to tolerate or had not responded to oral NSAIDs, intra-articular CSs and were unsuitable for knee replacement. All patients attending the Rheumatology Department who met these criteria were offered injection with Ostenil (post-2013) or Synvisc (2011–2012). Patients recorded pain scores [pain visual analogue scale (VAS)] score on a scale of 0 (no pain) to 10 (worst pain) pre-injection, 2 hourly for 24 h, daily for a week, alternate days for a month, at 6 weeks, 3 months, 4 months and 6 months post-injection. All patients gave informed consent. Statistical analysis: Mann–Whitney *U* test or paired Student's *t*-tests were used to compare the groups as appropriate, using a 5% significance level throughout.
Results: We included 33 patients with knee joint OA with a mean age of 67.4 years (range 25–85) and 25 were female. Twenty patients received Ostenil to 32 joints and 13 received Synvisc to 14 joints and the duration of follow-up was 6 months. There was significant improvement in pain VAS from baseline at all time points with both preparations (*P*-values shown in Table 1). Despite a significantly higher baseline VAS in the Ostenil group, there was no significant difference in VAS between the two groups at 1, 3, 4 and 6 months after treatment. Average pre- and post-treatment pain VAS scores are tabulated

E70 TABLE 1. VAS scores at baseline and 1, 3, 4 and 6 months post-injection

	Pre-treatment VAS	VAS 1 month post-injection/10	VAS 3 months post-injection/10	VAS 4 months post-injection/10	VAS 6 months post-injection/10
Ostenil Plus					
Mean (S.D.)	7.78 (1.96)	4.22 (3.28)	4.84 (3.09)	4.97 (3.05)	4.95 (2.91)
Median	8	4	4	4	5.5
n	32	32	31	31	20
P-value	—	<0.0001	<0.0001	<0.0001	<0.005
Synvisc One					
Mean (S.D.)	6.8 (0.89)	4.57 (2.65)	4.14 (2.07)	4.14 (2.79)	3.86 (2.97)
Median	7	6	4	3	3
n	14	14	14	7	7
P-value	—	<0.005	<0.0001	<0.05	<0.05

VAS: visual analogue scale.

below. Maximum benefit was seen at 1 month but the difference from baseline VAS scores remained significant at 6 months with an average reduction in VAS of 36% for Ostenil and 43% for Synvisc.

Conclusion: HA injections in our sample led to a significant improvement in pain VAS for up to 6 months. HA injections seem a useful adjunct in knee OA with a single injection of Ostenil Plus as effective but cheaper than Synvisc One in our cohort.

Disclosure statement: The authors have declared no conflicts of interest.