tenderness. Patients were randomized using a computer generated program to one of: Hyaluronan 2.8cc (750- 1300kDa), 2.8cc Hyaluronan + 40 units Botulinus toxin or 2.8cc saline placebo. Injection was repeated at 7 days. Assessments were obtained at baseline, 7, 14, 30 and 90 days. Participants were volleyball, soccer, football, tennis and basketball players with symptoms of patellar tendinopathy for a minimum of 3 to a maximum duration of 12 months. Primary outcome measure was the VISA-P (Victorian Institute of Sport Assessment - patella) score. Secondary outcomes with regard to pain during function tests (jump tests) including patient's pain VAS on weight bearing (0–100mm), patients' global assessment of knee injury (5 point categorical scale), patients' assessment of normal function/activity (5 point categorical scale), physician's global assessment of knee injury (5 point categorical scale), patients/physician satisfaction assessment (10 point categorical scale), time to return to pain-free and disability-free sport and adverse events as per WHO definition.
Results: The 120 patients included 49 males. Twelve placebo patients withdrew after 14 days due to lack of efficacy, eight patients experienced local pain at the injection site in the Hyaluronan combined with Botulinum toxin group, 5 in the Hyaluronan alone and three patients in the placebo group. No serious adverse events were reported. Two patients in the Hyaluronan combined with Botulinum toxin group experienced weakness in knee extension limited to 24 hours. This did not interfere with activities of daily living. At 14, 30 and 90 days after treatment, the mean VISA-P scores for the Hyaluronan group improved (4%, 6% and 7%, $P < .001$) and Hyaluronan combined with Botulinum toxin improved (6%, 18% and 18%, $P < .001$) respectively. No change was observed in the placebo group. Return to pain free sport was significantly faster in the combined group ($P<0.01$).
Conclusions: Hyaluronan injection alone or in combination with Botulinum toxin for athletic patients with patellar tendinopathy is an effective treatment option.

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RANDOMIZED, DOUBLE-BLIND CONTROL TRIAL OF PERI-ARTICULAR HYALURONIC ACID: BOTULINUS TOXIN VE PLACEBO INJECTION IN LATERAL EPICONDYLOSIS

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Purpose: To compare and describe the effects of peri-articular hyaluronic acid (HA) coadminsitered with botulinus toxin (HA + Botox) versus placebo in lateral epicondylosis.
Methods: 58 patients with elbow pain longer than two weeks and less than 12 months, particularly exacerbated during resisted dorsiflexion of the wrist with the elbow in full extension with a VAS score > 4.5 cm on a 0–10 cm VAS were included. Assessments were done at baseline, days 7, 14, 30 and 90. Efficacy measures included patient's visual analogue scale (VAS) of pain at rest (0–100 mm) and following assessment of grip strength (0–100 mm). Grip strength was determined using a jamar hydraulic hand dynamometer. Other assessments included patients' global assessment of elbow injury (5 point categorical scale; 1 = no disability, 5 = maximal disability), patients' assessment of normal function/activity (5 point categorical scale), patients/physician satisfaction assessment (10 point categorical scale), and adverse events as per WHO definition. Differences between groups were determined using an intent-to-treat ANOVA. After outcome assessment, patients were randomized to treatment with a single injection of: HA + Botox (1.0 cc HA + 40 units Botox) or placebo (normal saline 1.0 cc). Injections were done free-hand into the origin of the extensor carpi radialis brevis (ECRB).
Results: All patients completed the trial. Adverse events included pain and swelling in 3 patients in the placebo group at day 7 and ECRB weakness for 48 hours in 4 patients in the HA + Botox group following injection. At 7 days, a significant improvement ($p<0.05$) from baseline and versus placebo in VAS pain at rest and following grip testing was observed in HA + Botox. Grip strength was greater ($p<0.05$) for HA+Botox vs placebo at 14, 30 and 90 days. Further, HA +Botox showed significant patient perception of normal function versus placebo at one month ($p<0.05$). At 90 days, HA+ Botox showed significantly ($p<0.03$) greater physician satisfaction versus placebo. There were no differences in patient global satisfaction between treatment groups at 7 or 90 days.
Conclusions: Peri-articular HA + Botox produced superior clinical and statistical improvement in short- and long-term pain and function compared to placebo with serious adverse effects.

Education

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THE OARSI STANDARDISED DEFINITION OF OSTEOARTHRITIS: A LAY VERSION

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Purpose: A standard definition has been produced by OARSI to achieve consensus for defining and classifying for osteoarthritis (OA). The aim is to "facilitate communication about the disease among industry and non-industry researchers, regulatory agencies, funding agencies, third party payers, and patients".
A Research Users Group (RUG) of lay members was asked for views on the OARSI definition and to propose a lay version of the definition if it was needed.
Methods: A meeting of the Research User Group (RUG) was convened. All 13 RUG members (8 female, 5 male) were aged 45 years and over and had a musculoskeletal condition with nine having a diagnosis of OA. RUG members reviewed the definition, either individually or in pairs, and were asked write down the meaning of the definition in their own words. RUG members then shared their own lay definitions. Following the meeting, researchers and RUG members worked in partnership to co-produce a single lay definition of OA.
Results: Initial reactions to OARSI definition were mostly negative. While there was agreement that the definition seemed to be aimed at "medics and biomedical researchers", it was not understandable to the general public ("it's too detailed for a lay audience"; "to a lay person you need a dictionary to read it"). The group felt that the definition was aimed at "top biology scientists and medics" and questioned the usefulness of it to a lay audience. The RUG agreed that a simple lay version of the definition would be useful that included additional concepts important to patients, such as symptoms and impact.
The RUG's suggestions for an alternative version fell into two themes: 1) a literal translation into lay language, and 2) a simplified lay version. There was general consensus that a literal translation would offer greater consistency with the OARSI version and allow inclusion of all concepts agreed as important by OARSI. Extracts of the proposed lay definition of OA are shown in Table 1.
Conclusions: The current OARSI definition for defining and classifying OA should help conversations between researchers, health care professionals and patients. However the current definition requires translation into lay language, therefore a Research User Group has developed a lay definition of OA which is consistent with the OARSI definition. Whether this lay version could be used for public communication and to improve awareness of OA for all stakeholders needs to be tested.

Table 1. Lay definition of osteoarthritis

'Osteoarthritis is a disorder that can affect any moveable joint of the body, for example knees, hips and shoulders. It can show itself as a breakdown of tissues and abnormal changes to cell structures of joints which can be initiated by injury.' AND 'Osteoarthritis first shows itself as a change to the biological processes within a joint, followed by abnormal changes to the joint itself (such as the breakdown of cartilage, bone reshaping, bony lumps, joint inflammation, loss of joint function). This can result in pain, stiffness and loss of movement.'

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WALKING PERFORMANCE DEPENDS ON BODY MASS AND FUNCTIONAL STRENGTH BUT IS NOT FACILITATE BY SELF-EFFICACY IN KNEE OSTEOARTHRITIS PATIENTS

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Purpose: Knee Osteoarthritis (KOA) and aging are conditions that can compromise patient's walking performance. However, beside clinical and physical factors, psychological ones can explain the variance on mobility performance. Self-efficacy can be understood as the belief that