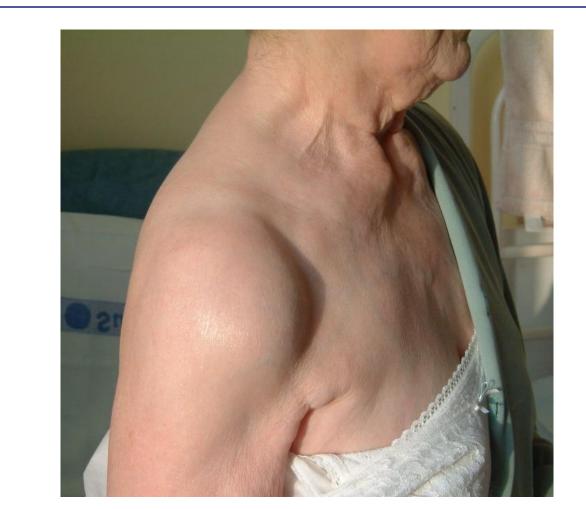
<u>OSTENIL HYALURONAN FOR INOPERABLE ARTHRITIS OF THE SHOULDER</u>

Lennard Funk

Department of Orthopaedic Surgery, Salford Royal Hospitals, Manchester, UK

1. Introduction

- Degenerative disease of the shoulder can be extremely painful and debilitating
- Shoulder Arthroplasty is the treatment of choice for pain relief where the pain is not controlled with analgesics and NSAIDs.
- However, some patients are not medically fit enough for surgery or refuse surgery. In these patients options are limited.





Advanced Cuff Arthropathy of the Shoulder in an elderly medically unfit patient

- Hyaluronans are a normal proteoglycan component of hyaline cartilage and synovial fluid, and play an important role in joint lubrication and metabolism.
- Hyaluronans offer anti-inflammatory properties, mechanical barrier to pain receptors and inflammatory cells, reduce free radicals and stimulate endogenous hyaluronan production ^{1,2,6}.
- Exogenous Hyaluronans have been shown to be beneficial in Osteoarthritis of the knee and rotator cuff disease in the shoulder 1-5.

2. Aim

To assess the efficacy of Ostenil (TRB Chemedica) in the treatment of shoulder arthritis in patients not suitable for shoulder surgery.



3. Methodology

- Seven patients presenting to a busy shoulder service over a two year period
- With disabling arthritis of the shoulder
- Too medically unfit or refused shoulder replacement surgery.
- All patients received a course of three Ostenil injections into the glenohumeral joint at weekly intervals.
- Patients were assessed pre-injection and at three months post-injection using the Constant Score and additional quality of life questions.

4. Results

- The mean patient age was 83 years (range 72 to 93), including six females and one male.
- Five patients had osteoarthritis, one rheumatoid arthritis and one cuff arthropathy.
- The mean pre-injection Constant Score was 15.5 (10-25).
- The mean Constant Score at three months was 49.5 (25-84).
- Pain was improved significantly by the injections from 11.6 (10-14) to 4.7 (0-9).
- All patients had their sleep disturbed by pain prior to the injections. Only three had some disturbance of sleep at three months post-injection, with none having their sleep disturbed at all times after the injections.
- Subjective shoulder elevation improved from chest level to hand above head, whilst objectively it improved from 61.8 degrees (30-90) to 92.1 degrees (60-130). Patient satisfaction (on a scale of 0 to 10) improved from 1.3 (0-2) pre-injection to 8.4 (4-10) following the injections.

Table of Results	
Pre-injection	3 months post-injection
15.5 (10-25)	49.5 (25-84)
11.6 (10-14)	4.7 (0-9)
Chest level	Above Head
61.8 degrees (30-90)	92.1 degrees (60-130)
13 (0-20)	84 (40-100)
	Pre-injection 15.5 (10-25) 11.6 (10-14) Chest level 61.8 degrees (30-90)

Conclusion:

Ostenil Hyaluronan appears to reduce pain and improve patient satisfaction in patients with advanced arthritis of the shoulder.

<u>References</u>

- 1. Coutts RD, Waddell DD. _Viscosupplementation for osteoarthritis of the knee. Orthopedics. 2004 May;27(5):470-1.
- 2. Leardini G., Perbellini A., et al. "Intra-Articular Injections of Hyaluronic Acid in the Treatment of Painful Shoulder," Clinical Therapeutics 1988/ Vol 10.No.5.
- 3. Raynauld J,P., Choquette D., et al. " Hylan versus Triamcinolone Acetonide Injection for Acute Supraspinatus Tendinitis: Early Report of a Randomised Controlled Trial," Arthritis Rheum (1994) 37 Supp. 9 (S346)
- 4. Abatangelo G., O'Regan M. "Hyaluronan: Biological role and Function in Articular Joints" European Journal of Rheumatology and Inflammation 1995; 15: 9-16
- 5. Shibata et al. Presented at the AAOS, Anaheim, Ca. Feb 1999. Press release from the Academy News Newsletter. 05/02/1999. "Hyaluronate Sodium Eases Pain of Rotator Cuff Tear." 6. Simon LS. Viscosupplementation therapy with intra-articular hyaluronic acid fact or fantasy? Rheum Dis Clin N Am. 1999. 25(2): 345-357.





