



Viscosupplementation – a growing trend in orthopaedic medicine

The use of viscosupplementation in the treatment of osteo-arthritis (OA) has become increasingly popular in recent years. This involves the introduction of hyaluronic acid (HA) by intra-articular injection into synovial joints - most commonly at the knee. HA is a naturally occurring polymer and is ubiquitous throughout the interstitial cellular space.

A member of the glycosaminoglycan group of recurring poly-saccharides, HA provides viscoelastic properties to the synovial fluid and is a fundamental constituent of articular cartilage¹. In a normal joint it is highly concentrated at the surface coating of articular cartilage, as well as the superficial layers of the synovial membrane. The pseudo-plastic properties of HA enable it to function primarily as a lubricant, shock absorber and a semi-permeable barrier regulating metabolic exchange between the cartilage and the synovial fluid². In OA, the HA of the synovial fluid is fragmented and depolymerised reducing its viscoelastic properties. This increases biomechanical loading of the joint and contributes to cartilage breakdown and erosion of the synovial lining resulting in pain with loss of range and function³.

Corticosteroid injections have played a central role in the treatment of OA at the knee for many years and there is considerable evidence to support their use, certainly in the short-term⁴. Doubts over their possible side effects (i.e. steroid arthropathy) have led to some concerns over their repeated use although the evidence for this is widely disputed⁵. HA has therefore been seen as a possible alternative in the treatment

of OA although there has been some reluctance among some clinicians to introduce its use because of a perceived lack of supporting evidence as well as its attendant cost implications.

The Cochrane Library⁶ recently updated its systematic review of the evidence for viscosupplementation for the treatment of OA at the knee. The products used in the available research were hyaluronan and hylan derivatives such as Arthrease, Durolane, Orthovisc and Ostenil. Randomised controlled trials (RCTs) were eligible including

single and double-blinded studies, placebo-based and comparative studies.

Sixty-three trials with a median quality score of 3 (range 1 to 5) were identified. Follow-up periods varied between day of last injection and one year. Thirty-seven trials included comparisons of hyaluronan/hylan and placebo, nine trials included comparisons of intra-articular (IA) corticosteroids, and five trials included comparisons of non-steroidal anti-inflammatory drugs (NSAIDs). The

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SOM visit Italy

Not everyone is aware that as well as running a full programme of courses in the UK, the Society of Orthopaedic Medicine also deliver courses further afield.

This year our modules have been run in Portugal and Italy. The Italian interest in our course programme was, in part, stimulated by the publication of the Italian version of 'Orthopaedic Medicine - A Practical approach' by our own Monica Kesson and Elaine Atkins and it was left to course tutors Margaret Rees and Paul Hattam to go out to Milan last December and this July to start our first series in Italy. The courses have been held at the famous Golgi Institute in a suburb of Milan and attended by 28 physiotherapists and doctors. The lectures were ably translated by Student Fellow Gianpiero Capra although the practical sessions provided a good opportunity for Margaret and Paul to develop their linguistic skills! One module remains in November but there are plans for more Italian courses in the near future.



Margaret Rees (centre) and team in Milan



Obituary- Jackie Caldwell 15.10.31-09.04.05

Following the announcement in the previous issue of SOM times on the sad death of Jackie Caldwell, Honorary and founder member of the SOM, we have received the tributes below from some SOM colleagues and friends.

I first met Jackie in the Physiotherapy Department of Farnborough Hospital. Not only were we both young mums working part-time, but we very quickly discovered that we had both trained at St Thomas' Hospital and consequently were both James Cyriax disciples. An immediate rapport was formed and a long-standing friendship developed - at that time, independent thinking physiotherapists were, at best, a nuisance, but we were not to be derailed.

We were both lucky enough to have been trained by Dr Cyriax himself as physiotherapy students. We were able to question him on all his theories, to ask "why" and "how", and to benefit from his huge knowledge. We emerged from student days with the confidence of belief in what seemed so essentially logical, knowing that we had the total support of the originator himself. We both started teaching on the Society of Orthopaedic Medicine courses and Jackie was the very first physiotherapist to take the Fellow's examination.

We travelled together, teaching in Ireland, USA and Holland. Jackie believed passionately in the cause to spread the word - teaching physiotherapists to question prescriptive treatments and to encourage the medical profession to question their own diagnoses. Clinically, we knew the treatments worked, but we were not always popular. Jackie was always so positive in her beliefs and tremendously supportive of those around her who were prepared to open their minds.

Over the following years, in our different working environments, we continued a close personal and professional relationship. It was so easy as we spoke the same language and she took her enthusiasm with her into her new senior employment. She never stopped trying to help more junior physiotherapists to develop that thirst for information that she had never lost.

WENDY SPIEGEL

Some additional tributes to Jackie:

Jackie Caldwell was a founder member of the Society of Orthopaedic Medicine. She started her career as an orthopaedic nurse at the Royal Orthopaedic Hospital, Stanmore before training as a physiotherapist at St Thomas' Hospital under Dr James Cyriax. After qualifying she worked in Toronto for six years in a major orthopaedic hospital.

Following her return to England and after a five year career gap to start her family of three children, Simon, Julian and Sarah, she joined the GP practice of Drs. Thelma and the late Gerry Griffin in Chislehurst, Kent. During the twenty five year orthopaedic partnership between Jackie and Gerry Griffin, they were able to provide successful treatment for almost all the medical orthopaedic conditions presenting at the surgery. Jackie pursued her Cyriax techniques while Gerry carried out a variety of injections including lumbar epidurals.

Her next position was as a part time obstetric physiotherapist at Bromley Hospital. This in turn led to her appointment as Superintendent Physiotherapist in charge of Orpington, Farnborough and Bromley Hospitals. As queen bee physiotherapist she supervised the running of all three departments and gave training lectures to the physiotherapists on examination and treatment techniques in the true Cyriax tradition. Jackie was particularly well qualified to fulfil this role as she was one of the Society's earliest accredited teachers in orthopaedic medicine, and had travelled extensively in America and Europe both with and without Dr Cyriax on lecture tours.

Jackie clearly had the magic touch to make an enthusiastic success of all her many interests. She was gifted musically. She was a friend of the Royal Opera House and when she and I visited the Sydney Opera four years ago, I was amazed to see her concentrating intently on the full score at a performance of Verdi's Requiem Mass. Her many friends will attest to her excellence as a cook, a flower arranger and a wine connoisseur. She always dressed with great style and often made her own clothes. Ten years ago Jackie took up yachting and within a few years had gained certification as a Master Mariner.

Finally, my lasting memory of Jackie will always be as a warm, generous and devoted friend. I shall miss her greatly.

SYLVIA HILLIER

Jackie was one of the early icons of orthopaedic medicine and as such provided inspiration to many of us who followed in her footsteps.

She prided herself in being one of the first to sit and pass the Society of Orthopaedic Medicine fellowship examination, earning the right to join a special body of enthusiastic teachers. She was always supportive of the teaching team and will be affectionately remembered for being able to sleep on a clothes line, often catching a quick power nap at the back of the room as we delivered our words of wisdom!

MONICA KESSON

Research Bursary Appointment - Debbie Cox

I am delighted to report the appointment of Debbie Cox as the successful recipient of the research bursary for promoting evidence based practice for the SOM.

Debbie is a highly skilled practitioner and a graduate with Distinction from the MSc in Orthopaedic Medicine at Middlesex. Her personal area of research for the higher degree will be the development of an evidenced based pathway for the management of patients with sub-acromial impingement syndrome. I look forward to welcoming Debbie to The University of Hull.

ANGELA CLOUGH
CHAIR OF RESEARCH COMMITTEE

Updates on Debbie's work will be regularly featured in future newsletters. If you have read any interesting/thought provoking articles that relate to any area of SOM practice do send them in. I'll start the ball rolling with something I found in the library last week. It discusses the biomechanical effects of manipulation in the vertebral column and shows the increased space produced in the Lumbar facet joints lasts beyond the duration of the manipulation itself.

Cramer GD, Gregerson DM, Knudsen JT et al (2005) Effect of spinal manipulation duration on low threshold mechanoreceptors in lumbar paraspinal muscles *Spine* 30,(1),115-122

MEG GILBERT – EDITOR, SOMTIMES

Confessions of a Local Organiser

*A venture into the unknown it was,
Indeed - it gave us the jitters.
Patient slots closed, furniture moved,
Our nerves were soon all in fritters.*

*Module A soon arrived - in spring, no less,
The pace excited, yet steady.
Delegates here, places all set-
First day lunch all prepared and ready.*

*Elaine was our leader - well, what can we
say?*

*Inspiring, enthusing - a pleasure!
Even a jaunt to the worst pub of all-
It was bad!! But nothing could 'faze' her!*

*Module B was in autumn: cooler by now,
The pace was relaxed and quite jolly.
Getting to grips with injections, and
volumes,
'Mr Injector' joined in with the folly*

*Coffee and cakes, "swap partners
please",
We're getting to know the routine now
One happy family learning together
Developing skills and the 'know how'.*

*Module C - how quickly it seemed to
come round,
The pace was frantic and hurried
Revision, revision, remember, remember...
Our nerves were all tattered and flurried!*

*The paper exam - you say true or false,
Not bad - it was really alright.
The viva, whilst 'busy' was over so soon-
We did it - we got through the fight!!*

*Goodbyes to our friends- it's all over now.
We travelled the modules together.
Now wait for results and think on ahead-
Module D? MSc? Or whatever!*

*We passed- we're so pleased! loved the
whole course
We're thinking of taking it further.
The S of OM - what a wonderful team,
Thank you so much for being our mentor!!*

WITH FONDEST MEMORIES!! READING, JULY 2005.

If you would like to host a course for the Society of Orthopaedic Medicine, further details are available from the web site, or from Amanda Sherwood at admin@soc-ortho-med.org



Viscosupplementation *continued from page 1*

pooled analyses of the effects of viscosupplements against 'placebo' controls generally supported the efficacy of this class of intervention. Of note is the 5 to 13 week post injection period which showed a percent improvement from baseline of 11% to 54% for pain and 9% to 15% for function. In general, comparable efficacy was noted against NSAIDs and longer-term benefits were noted in comparisons against IA corticosteroids. In general, few adverse events were reported.

There are few randomised head-to-head comparisons of different viscosupplements however and caution should be exercised in drawing conclusions regarding the relative value of different products. In general, sample-size restrictions preclude any definitive comment on the safety of the HA class of products; however, within the constraints of the trial designs no major safety issues were detected. Overall the authors concluded that, based upon analysis of all RCTs, viscosupplementation is an effective treatment for OA of the knee with beneficial effects on pain and function at different post injection periods - especially at 5 to 13 weeks

PAUL HATTAM MSc, MCSP, FSOB, COURSE PRINCIPAL, THEORY AND PRACTICE OF INJECTION THERAPY

References

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- 2 Scott, J. E., In: Evered, D., Whelan, J., (1989) Eds. **The biology of hyaluronan.** Ciba Foundation Symposium 143. Chichester: John Wiley: 6-20
- 4 Bellamy, N., Campbell, J., Robinson, V., Gee, T., Bourne, R., Wells, G. (2005) **Intra-articular corticosteroid for treatment of osteoarthritis of the knee.** The Cochrane Library (Oxford). no. 3
- Arroll, B., Goodyear, F. S. (2004) **Corticosteroid injections for osteoarthritis of the knee: meta-analysis.** *BMJ* 328: 869.
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- Gray, R. G., Gottlieb, N. L. (1983) **Intra-articular corticosteroids. An updated assessment.** *Clinical orthopaedics and related research.* No. 177, p. 235-63
- Stitik, T. P. (2001) **Intra-articular corticosteroids.** *Physical Medicine and Rehabilitation: State of the Art Reviews.* Vol. 15 (1) p103-15
- 6 Bellamy, N., Campbell, J., Robinson, V., Gee, T., Bourne, R., Wells, G. (2005) **Viscosupplementation for the treatment of osteoarthritis of the knee.** *The Cochrane Library,* (Oxford), 2005, no. 3.

Call for Nominations - SOM Council

The SOM Council will have 3 vacancies from December 2005 to assist with the running of the organisation.

The SOM is a registered Charity and as a member of Council you would also be a Charity Trustee. Charities need trustees with a variety of skills and experience. Being a trustee is an opportunity for you to develop new skills and improve your career prospects - you will be joining the likes of Sir Elton John, David Beckham, Lenny Henry and Meera Syal who are all charity trustees (although being an entertainer is not a compulsory requirement!)

Further information is available from the Charity Commission website at www.charitycommission.gsi.gov.uk Nomination forms are available from the members-only section of the SOM web site.

LIST OF EVENTS

SOM GP Seminar - The Shoulder Joint
5 NOVEMBER 2005, KIDDERMINSTER
Email: admin@soc-ortho-med.org
www.soc-ortho-med.org

OCPDP Conference - A Real Pain
31 MARCH - 2 APRIL 2006, NOTTINGHAM
Email: towcester@physiofirst.org.uk
www.physiofirst.org.uk

BIMM/SOM/UKADIS Symposium 2005
Below the belt - Tendons and trauma in the lower limb
3 DECEMBER 2005, LONDON HILTON METROPOLE
Contact: 01454 610255
Email: admin@soc-ortho-med.org
www.soc-ortho-med.org

2005 SOM Diploma Course Programme
Dates and venues available from the web site at www.soc-ortho-med.org

BOOK REVIEWS

Orthopaedics in Primary Care

Andrew Carr & William Hamilton
Second Edition, 189 PAGES, £32.99

Elsevier, Butterworth Heinemann
ISBN 0 7506 8785 1

This book, written by a professor of orthopaedic surgery, and a research fellow in primary care, is as its title suggests, targeted firmly at GPs and Primary Care. It would also be a helpful reference book for ESP Physiotherapists working in Orthopaedic screening / triage services.

Essentially this is a practical guide to the appropriate referral of patients to physiotherapy and secondary care orthopaedic services, with sound advice on the management of those conditions which can reasonably be treated in primary care. The information is concisely and clearly presented, with relevant diagrams and illustrations, and could easily be consulted within the time constraints of a GP consultation.

Other sections of the book deal with post operative management and rehabilitation following common orthopaedic operations (an area where good information is often not readily available to the GP), basic physiotherapy exercises and common musculoskeletal injections suitable for use in primary care situations. The injection chapter includes dosage recommendations for hydrocortisone, triamcinolone and methylprednisolone. My reservation about this section would be that some of the needle sizes advocated seem rather on the large side - e.g. 19g for carpal tunnel syndrome, where I have always found a 23g needle to be adequate.

The book concludes with a series of case histories for the reader to apply the knowledge gained, followed by a clear explanation of the issues involved.

Whilst not specifically based on an orthopaedic medicine approach, there is much common ground in the diagnostic reasoning described.

IAN DAVIES MB CHB, FELLOW, SOCIETY OF ORTHOPAEDIC MEDICINE

MEMBERS DIRECTORY ON-LINE

The membership directory is now available on-line from the members-only section of the SOM web site at www.soc-ortho-med.org

We have the facility to exclude you from this listing if you do not want your details to be published. We can also have a different mailing and directory address if you would like your journal sent home and your work address to be in the Directory. If any of your details need changing, simply contact our Membership Administrator, Sue Cottrell, who will be happy to help Email: woodpecker@cottrells.freemove.co.uk.



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British Institute of Musculoskeletal Medicine
Society of Orthopaedic Medicine
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Below the Belt

Tendons and trauma in the lower limb

3 DECEMBER 2005

HILTON LONDON METROPOLE, EDGWARE ROAD, LONDON

INCORPORATING

Members Forum 2 DECEMBER 2005, HILTON LONDON METROPOLE

Speakers:

Karim Khan
Domhnall MacAuley
Simon Blease

Glenn Hunter
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CPD APPLIED FOR

