



**International Society
of Clinical Isokinetics**

NEWSLETTER

Notes from the ISCI Annual General Meeting and Workshop, Athens September 10/11th 1994 recorded by Prof Moira O'Brien

Outcome Rehabilitation Protocol for Shoulder Rotator Cuff Repair and Shoulder Decompression presented by Michael Voight Med, PT, ATC, CSCS, Berkshire Institute, Orthopaedic and Sports Physical Clinic, Wyomising, Pennsylvania.

Michael Voight gave a very comprehensive review of the anatomy of the shoulder joint and the rotator cuff muscles emphasising the importance of the blood supply of the rotator cuff, particularly the supraspinatus. He then classified the different grades of impingement and rotator cuff lesions and the treatment for the different grades, emphasising that if surgery is indicated patients who do not exercise before surgery will not do well post surgery. A correct diagnosis is essential and treatment must be individualised. Factors that determine the rehabilitation are the magnitude of the tear, the security of the rotator cuff and the deltoid muscle, and the extent of the impingement. Decompression is designed to eliminate or diminish the abnormality causing the impingement between the humeral head and the acromion.

Post operative regime includes a sling and a small pillow keeping the arm slightly away from the side while sleeping. It is advisable not to use an abduction brace unless there is a very large tear. Rehabilitation

depends on the size of the tear of the rotator cuff; 1 cm = small, 3cm = moderate, 5 cm or greater = large. If large, the repair must be protected for a longer time. Full passive range of motion is advisable within 24 h if there is a good repair. Progress to active exercise should be undertaken within days within the limit of pain. Initially strength is regained isometrically in a position of 30°-40° degrees of abduction with neutral rotation. Dynamic stabilisation, strengthening of muscle endurance and proper timing with co-ordination of muscle activity are all important. Strong scapular stabilisation is advisable so that scapular/humeral muscles can control the scapular.

Defects in proprioception can lead to additional stress. There is a need to re-train proprioception to learn the correct movement patterns and techniques. Joint positioning with exercise at 75° of external rotation with the eyes closed, followed by bringing the arm to the neutral position and asking the patient to return the arm to the 75° position. Movements must be undertaken in different joint planes. The goal of rehabilitation must be the elimination of pain, the regaining of full range of movement, strength and endurance.

Medico-legal Applications of Isokinetics. Presented by Zeevi Dvir, PhD, The Sackler Faculty of Medicine, Tel Aviv University

Muscle dysfunction is recognized as an impairment by many legal systems. Its assessment is generally still based on manual testing (MMT) a method which is known to be of very poor sensitivity other than in cases of debilitating weakness.

Isokinetics offers an objective and accurate means of assessing strength (and other biomechanically related parameters) deficiency. Its application is particularly useful in unilateral involvement where the uninvolved side provides the baseline. In this case the percent deficiency could be interpreted literally or referred to in terms of light, moderate or severe injury. In bilateral cases, comparison to a norm would be justified only when the norm is gender and age specific. Such norms are currently valid for the knee muscles and to some extent, the trunk extensors.

Problems of malingering can effectively be dealt with using isokinetics. However, contrary to some "established" notions, consistency of performance must not be demonstrated in order to prove (or sometimes) disprove the veracity of the claim. The preferred ways of addressing this acute problem is through the establishment of compatibility with what is physiologically and biomechanically acceptable.

ISCI ANNUAL GENERAL MEETING

ATHENS HILTON HOTEL — 10th SEPTEMBER
1994 — MINUTES

1. Treasurer's Report

Sheila Strover reported that the ISCI account stood at approximately £500 before the Athens meeting. There were several members who had not yet paid their '94 subscriptions. Following the Athens meeting Sheila Strover anticipated that there would be a small profit and suggested that committee members might be reimbursed for their expenses. Following an open discussion it was agreed that committee members should be given some financial support for attending the conference if there were sufficient funds in the ISCI account and that some financial support would be offered for secretarial expenses.

2. Chairman's Report

During my 3 years in office there has been a very slow but gradual increase in membership, with this meeting in Athens being the first International meeting outside the United Kingdom. We have stuck quite rigidly to the aims and objectives of the society and at the first meeting at Droitwich in 1991, at which the officers were elected, the Society unanimously agreed that we should apply for Charitable Status.

That meeting agreed for Professor M O'Brien, Professor G McLatchie, Dr Zeevi Dvir and Dr John

Davies to be the named Trustees in the event of Charitable Status being attained.

During the AGM last year at Droitwich a few weeks prior to that meeting I had been informed by the officer of the charity commissioners that Charitable Status would probably be looked upon favourably in the very near future. Unfortunately, during this last year besides being caught up in an unprecedented administrative delay and mix up at the Charity Commissioners, for which the Society eventually received a suitably worded letter of apology, we then found ourselves in a position of further correspondence from the Commissioner which indicated what we as a committee saw as a failure by the Commissioners to fully understand our aims and objectives as a Society.

During the last committee meeting at Mannheim in Germany, a paper was produced by Angus Strover and Zeevi Dvir on a review of the aims and objectives of ISCI. This reads as follows:

At a recent committee meeting of the ISCI held in Mannheim, the question of the aims and objectives of ISCI was again brought up by members of the isokinetic trade. The implications were that ISCI was orientated entirely towards one manufacturer of isokinetic machinery. This stimulated us to reiterate the basic aims and objectives of the Society.

At the very outset, ISCI was formed in order to attempt to standardise and optimise certain aspects of isokinetic assessment and training which are perceived to be going their own way and largely influenced by members of the trade rather than by a scientific appraisal of the basic parameters. The steering committee of ISCI at that stage indicated that it would be ideal for the professional members of the orthopaedic and physical therapy groups, who would be using isokinetics, to be able to interpret each other's findings and communicate on the same basis as physicians owning electrocardiographic apparatus would be able to interpret each other's ECG readings. This means that whichever company manufactures the apparatus, the clinicians would at least be familiar with each other's data and start from the same terms of reference in interpreting the data, so that the clinical findings which were apparent from the data would become obvious to anyone. In this respect, it would be ideal for the various companies to be guided by the clinicians in their design of the software which they use.

Standardisation of the display or presentation of data would also mean that research projects performed on isokinetic machines from any manufacturer would be able to be designed on a multicentre level if necessary

and that interpretation of the data would be statistically significant whatever machines were being used. In this way, and in only this way, do we perceive the use of isokinetics in sports medicine or in medico-legal situations as being standardisable and producing consistently communicable data.

Finally, it is our intention to involve the trade not only to sponsor events where their isokinetic apparatus is being displayed but also to co-operate in the above stated aims of ISCI. In this respect, we definitely want to reiterate our position in the respect of never allowing ourselves to be perceived as being allied to one group of manufacturers against the rest. We feel it is important that the trade and the clinical or professional users should go forward together to make isokinetics a scientifically useful instrument of assessment and rehabilitation in physical therapy and orthopaedic surgery.

As a Society we have to make decisions as to our future, hence the reason for the items on the agenda at this AGM. I personally believe that we do have an opportunity through association and liaisons with Isokinetic Societies in the Netherlands and France to expand rapidly. I know that having spoken to our American friends and in particular Mr Michael Voight, that they would also be very keen to establish a Society with similar aims and objectives in the United States.

For a Society which has International aims to succeed the administration and organisation takes a great deal of time, effort and financial support. Time and effort will and has come from interested, enthusiastic and well meaning individuals but financial support by subscription for membership only will *not* suffice.

The isokinetic industry must be coerced not only to support, with occasionally meeting speakers expenses, but for a much more meaningful financial support, not only to the Society itself, but perhaps in the form of bursaries or research grants. We heard today for instance the need for a great deal more research into eccentric measurement and evaluation and surely this is an area of paramount importance to the isokinetic industry.

An International Society should have not only a newsletter but its own journal and with revenue for support being supplied by the industry that it serves, in this case the isokinetic manufacturers.

The next item on the agenda is the election of officers and the present committee agree at Mannheim that officers should be elected every 3 years. This being my third year in office I feel very strongly that with the challenges ahead, further professional duties prohibit me from devoting the time needed if we are to truly make ISCI a viable international society, so I

shall not be standing for re-election. I thank the committee over the last 3 years for their support and shall continue to be a lifelong supporter and Trustee of ISCI if that is what the Charity Commissioners decide together with the new incoming committee, for the future.

3. Election of Officers

As the Society had no constitution all officers were eligible for re-election. John Davies, Chairman, wished to resign due to pressure of work. Following election the new committee was as follows:

Chairman: Angus Strover — proposed Apostolos Kairis, seconded Zeevi Dvir.

Secretary: Elizabeth Sharp — proposed Angus Strover, seconded Moira O'Brien.

Treasurer: Sheila Strover — proposed Moira O'Brien, seconded Bernd Herbeck.

Present committee members: Mark Cartman, Martin Rennison and Moira O'Brien proposed John Davies, seconded Michael Voight.

New members: Zeevi Dvir — proposed Michael Voight, seconded Elizabeth Sharp.

Michael Voight — proposed Moira O'Brien, seconded Bernd Herbeck

4. Any Other Business

It was decided that the membership fee should be increased from £10 to £20/US\$35.00 per annum. There was general approval that the committee had increased in number and in international status so that each committee member could encourage membership to increase in their own countries. All committee members should encourage local meetings in their own countries.

Following the Chairman's report, Zeevi Dvir suggested that Butterworth-Heinemann, who publish the journal of *Isokinetics and Exercise Science* should offer favourable subscriptions to ISCI members which would increase their circulation and give ISCI members a publication in which to submit scientific papers. When the Canadian Sports Medical Journal four years ago offered the same advantageous subscription rates it brought in a lot of members from both Australia and America. If the circulation were increased it would give ISCI an opportunity for free advertising. It

was felt that it would be too difficult at this stage for ISCI to produce its own prestigious journal.

Angus Strover asked whether it would be worthwhile approaching David Perren's journal. It was felt that this was not specialised enough for *Isokinetics*. Zeevi Dvir suggested that another European editor should be added to the list of editors for the journal of *Isokinetics and Exercise Science*.

Michael Voight agreed that a discounted rate for ISCI membership would be a good idea. He himself was on the editorial board of the journal of *Isokinetics and Exercise Science* along with George Davies and Terry Malone. He offered to communicate with the other editors.

Sheila Strover stated that when ISCI started it was decided that we would apply for charitable status and form a company. The present proposal was that we should drop the charity status and as ISCI had no constitution and was not incorporated, a decision should be made whether to continue to call ourselves an association and to draw up a constitution. As the Society was international it was necessary to seek legal advice for international tax purposes. The Society at this point needed to decide whether it was viable as two members had resigned due to lack of communication during the previous year. Re-organisation and a journal would help to improve communication so that the membership would feel that the Society was achieving its aims.

Zeevi Dvir stated that there was a need to increase interest in the medico-legal usage of *Isokinetics*. It was necessary to ensure that we did not promise any outcomes that were not viable and that research should be encouraged.

Zeevi Dvir and Michael Voight would undertake to influence the editorial board of the journal of *Isokinetics and Exercise Science* to use the journal in promoting ISCI and in offering reduced subscriptions to members. Michael Delahurty of Butterworth in the US would be approached for his support. Michael Voight was to be attending an editorial meeting of the journal of *Isokinetics and Exercise Science* in three weeks time and he will undertake to speak to all the editors.

5. Date and place of the next meeting

Various venues were suggested. Israel, in March 1995 was suggested but it was concluded that this was too early to organise an international meeting.

A meeting in South Africa in June 1995 to coincide with the rugby meeting in Sun City was suggested.

The WCPT Conference in June 1995 in Washington USA was suggested and the general consensus of the membership was that this was the best venue in

which to hold the next ISCI Annual General Meeting and Workshops. It was decided that a Workshop meeting of one full day and one half day would be arranged to coincide with the WCPT meeting either before the conference which started on June 25 or at the end of it.

It was agreed that Angus Strover, as the new chairman, would approach the WCPT committee to seek their approval for ISCI to organise a meeting concurrently. Michael Voight said that it was anticipated that up to 10,000 PTs might attend the WCPT meeting which would afford a large number of potential delegates. The mail shot had already been sent out, but there would be further mailings over the next few months.

Michael Voight was appointed as the organiser of the next meeting in Washington USA and a suggestion was made that David Perren, who is a member of ISCI, should be asked to assist him.

The next meeting of ISCI was therefore set for June 1995 in Washington USA.

The meeting closed at 6.50 PM.

INTERNATIONAL SOCIETY FOR CLINICAL ISOKINETICS

Following the 1990 Isokinetic Seminar at Droitwich, a Steering Committee was formed to propose the formation of this new Society.

The following is a summary of the proposed aims of the Society:

- To promote and undertake research and education in isokinetics and to foster and promote within the medical and allied professions an interest in isokinetic assessment and treatment and to standardise protocols for that purpose.
- To contribute towards the advancement of isokinetic assessment as a clinical science and for the relief of patients who may benefit from isokinetic treatment.
- To promote the production of printed matter, films and tapes; and to form library facilities which would facilitate research and education.
- To hold lectures, seminars and courses and to provide certificates of attendance, prizes, scholarships, exhibitions and assistance for training and research.
- To recommend to the trade minimum training schedules for users of isokinetic machinery and to draw up safety guidelines and communicate these to the members, manufacturers and other interested parties.

The Society will be open to membership by election. It is anticipated that members will usually be individuals who are members of their most appropriate professional organisation. The Society will be open to medical doctors (Physician, Surgeon, General Practitioner, Sports Doctor), physical therapists, sports sci-

entists, bioengineers, athletic trainers with appropriate qualifications and who have an active interest in isokinetics. Membership is also offered to manufacturers of isokinetic equipment. Membership will be subject to an annual fee.