INTERNATIONAL SOCIETY OF ARTHROSCOPY, KNEE SURGERY & ORTHOPAEDIC SPORTS MEDICINE • 1995 •

ISAKOS

NEWSLETTER

WINTER 2002

Volume 5, Issue 2

INSIDE THIS ISSUE

Auckland Offers Vibrant Setting for Congress

Join ISAKOS in Auckland, host of the 2003 America's Cup!

You won't want to miss this important congress, set in New Zealand's largest, most vibrant city. Surrounded by golf courses and ocean, congress attendees are sure to enjoy the relaxed cafés, world-class wines, fresh seafood, sand-filled beaches and maritime and art museums.

Hike, kayak, bungy jump, sail, horseback ride, bicycle … the outdoor lifestyle of the residents of Auckland perfectly complements the relaxed sophistication and urban advantages of this friendly South Pacific metropolis. "Kiwis" have much to be proud of, and they are eager to welcome you.

The ISAKOS Congress will be held at the Auckland Edge, the city's center for conventions, cultural and entertainment events. The congress hotels are all within walking distance, and no place in Auckland is ever far from golf, the waterfront or recreational opportunities. This unpretentious city is well-priced for the international traveler, and the feel of the city is that of a cosmopolitan town. Guests will feel safe and welcomed in Auckland.

Visit Auckland online at *www.aucklandnz.com*, and see why ISAKOS is excited to have you join us.

Submit your abstract online this year at www.isakos.com

Deadline: April 1, 2002

ISAKOS is happy to announce abstracts for podium and poster presentation will be submitted directly to the ISAKOS Office online. There is no paper form to complete and mail in. When you are ready to submit your abstract, visit the ISAKOS Web site (www.isakos.com) and follow the instructions.

ISAKOS Welcomes New Members

ASSOCIATE MEMBERS

Eishun Amakado, Asst. Prof., Japan • Thomas Anderson, M.D., USA • Adrian Balliana, M.D., Argentina • Abdullah Baslaim, F.R.C.S.(C), Saudi Arabia • Peter Berton, F.R.A.C.S., Australia • Derrick Billett, Australia • Mark Burman, M.D., Canada • Felipe Camara, M.D., Mexico • Jose Camarillo, M.D., Venezuela • Chatenya Chauhan, M.B., Ch.B., United Kingdom • Aureo Cinagawa, M.D., Brazil • Francisco Copello, M.D., Colombia • Ricardo Cury, M.D., Brazil • Antonio Delcogliano, M.D., Italy • Mohamed Elshafie, M.D., Egypt • Lucio Ernlund, M.D., M.Sc., Brazil • Terry Gemas, M.D., USA • Francesco Giron, M.D., Italy • Raul Gutierrez, M.D., Mexico • William Kibler, M.D., USA • Abel Leturia, M.D., Argentina • Akira Maeda, M.D., Ph.D., Japan • Nobuzo Matsui, M.D., Ph.D., Japan • Tomoki Mitsuoka, M.D., Japan • Kazutomo Miura, M.D., Ph.D., Japan • Gerardo Moreno, M.D., Venezuela • Celio Mori, M.D., Brazil • Nicodemus Murillo, M.D., Mexico • Akihiko Nagao, M.D., Japan • Norimasa Nakamura, M.D., Ph.D., Japan • Ludovico Neto, Brazil • William Neve, DRS, The Netherlands • Rolf Oetiker, M.D., Switzerland • George Paletta Jr., M.D., USA • Georgios Papadopoulos, M.D., Ph.D., Greece • Tae-Woo Park, M.D., South Korea • Rodrigo Pimentel, M.D., Colombia • Hector David Ramirez Castillo, M.D., Mexico • Sebastian Rosasco, M.D., Argentina • David Ruch, M.D., USA • Adrian Rymarczyk, M.D., Poland • Xavier Sanchez, M.D., Chile • Kazuhiro Sasaki, M.D., Japan • Victor Sasson, M.D., USA • Jorge Saybe, M.D., Honduras • Lorenzo Silvestri, M.D., Italy • Joel Smith, M.D., Asst. Prof., USA • Odone Sommariva, M.D., Argentina • Steven Stecker, M.D., USA • Cristian Stoica, M.D., Romania • Takehiko Sugita, M.D., Ph.D., Japan • Eiichi Tsuda, M.D., Ph.D., Japan • Masayoshi Yagi, M.D., Ph.D., Japan • Zenya Yamamoto, M.D., Japan • Akihiko Yonekura, M.D., Ph.D., Japan

Editor's Note

Stephen S. Burkhart, M.D., USA, ISAKOS Newsletter Editor

The recurring images of terrorism are all too familiar: the towers of the World Trade Center crashing to the ground with thousands of innocent victims inside, and the remorseless visage of the acknowledged terrorist leader, Osama Bin Laden, sitting in front of his secret cave in the mountains of Afghanistan, inciting Muslims to a jihad that has nothing to do with religion. Since that day in September, the world has changed – and the changes affect all of us. We are shocked by headlines of biological terrorism. We sense our freedom to travel has become limited, and security has become almost impossible to ensure. We yearn for a return to simpler times, a return to innocence. We are sad and disheartened, yet resolute and committed. And we are angry.

Fourteen days after the towers fell in New York, I was the target of an attack by a different group of terrorists. As with all terrorist attacks, it was unprovoked and occurred in an innocent and unlikely setting.

"You've got cancer," said my doctor in a matter-of-fact voice.

At first, I thought I had misunderstood him. "Excuse me?" I said, giving him a chance to take back this awful and terribly un-funny practical joke.

"Cancer of the prostate." The doctor stared straight ahead, avoiding eye contact. He wasn't joking. That was when I first felt the terrorist attack, the explosions ripping through my mind and my spirit.

No wonder we refer to terrorism as a cancer that must be eliminated. The two entities are mirror images of each other. We speak of the cancer of terrorism, but we might just as well speak of the terrorism of cancer.

Ironically, in confronting cancer, I think I have learned some things about confronting terrorism. Successfully counteracting cancer and terrorism involves the same principles:

Continued on page 14

President's Message

Barry R. Tietjens, F.R.A.C.S., New Zealand, 2001-2003 ISAKOS President

In New Zealand we seem to be a world away from terrorism, but television brings us face-to-face with reality. We can be proud that ISAKOS embraces surgeons from all around the world, regardless of race, religion or culture.

Preparations for the 2003 ISAKOS Congress in Auckland are progressing well after our Executive Director, Michele Johnson, made a site visit in August. The Call for Abstracts has been mailed. Remember the 2003 ISAKOS Congress will be held in March, earlier than usual, to coincide with our best weather at the end of summer. Our Program Chairman John Bartlett is developing an outstanding scientific program, building on the success of the 2001 Congress in Montreux.

The Executive Board held a successful meeting in Chicago in November. At that time we met with representatives of the *Arthroscopy* Journal Board of Trustees (JBOT) and industry leaders to discuss additional funding for ISAKOS. The JBOT will provide an educational grant to support the ISAKOS Office and membership initiatives. We will establish an ISAKOS Industry Advisory Board (IIAB) to provide additional funding for education and research. Already we have been able to provide funding for committee projects in the lead up to the Auckland congress. Committee chairs will report on their projects in this newsletter. We are currently developing a five-year plan for ISAKOS that will be ratified at the next Board of Directors meeting in Dallas, during the February AAOS Annual Meeting.

During 2002 all the major continental societies will be meeting. I am looking forward to attending the ESSKA Meeting in Rome, SLARD Meeting in Buenos Aires and APOSSM in Singapore. Check out our Web site, *www.isakos.com*, for information regarding meetings in your region.

The future of ISAKOS is secure.

ISAKOS Committees Develop New Studies, Programs

Sports Medicine Committee

Annunziato Amendola, M.D., Canada, Chairman

The Sports Medicine Committee held its last meeting at the 2003 ISAKOS Congress in Montreux. The committee size and membership has been restructured and streamlined from the previous three years. Dr. Gideon Mann should be congratulated on a job well done for his dedication and hard work during his tenure. Dr. A. Amendola is the current chair of the Sports Medicine Committee.

A number of new initiatives the committee had been working on were finalized at the Montreux meeting. The top three poster and paper presentations were recognized at the meeting and the authors were written following the meeting congratulating them and encouraging them to submit their work to *Arthroscopy: The Journal of Arthroscopic and Related Surgery* for consideration for publication. In addition, the journal will also consider publishing award-winning papers if they are submitted in the appropriate fashion. Instructional course lectures on the topics of overuse injuries and chronic groin injuries have been put together by various authors and have been submitted for publication following the Montreux meeting.

The committee agreed to pursue putting together and authoring a monograph on the current status and trends in the diagnosis and treatment of tendonopathies. Funding has been secured allowing the committee to proceed with this project.

The committee has continued its usual duties including suggesting topics for instructional courses and symposia for the 2003 ISAKOS Congress in Auckland, New Zealand.

The next meeting of the Sports Medicine Committee will be at the American Academy of Orthopaedic Surgeons (AAOS) Annual Meeting in Dallas, 2002.

Scientific Committee

Alexandra Kirkley, M.D., F.R.C.S., Canada, Chairwoman

The primary goal of the ISAKOS Scientific Committee (to be achieved prior to the biennial meeting in Auckland 2003) is to provide the ISAKOS membership with a syllabus on methodology for clinical trials in orthopaedic surgery. This text will be broken into several chapters, each one publishable as a paper under the ISAKOS banner. This text will be the first ever to be published specific to clinical trials in surgery. The chapters of the syllabus include:

- ***Introduction***
  The introductory chapter will include a brief history of clinical trials and discuss the merits of the common study designs.
- ***Randomized clinical trials***
  This chapter will emphasize the methodological rigour of the randomized clinical trial and the rationale for doing randomized clinical trials in orthopaedic surgery. There will be a brief discussion of the ethics of doing and not doing RCTs.
- ***Basic Design Features of Randomized Clinical Trials***
  This chapter will include an overview of the following:
  - refining the research question
  - study subjects (inclusion/exclusion criteria, sampling method)
  - interventions (description, appropriate choice of control treatment)
  - outcomes (logical selection of objective and subjective measures)
  - randomization
  - sample size analysis
  - analysis
  - ethics issues (obtaining ethics approval, letter of informed consent, documentation, confidentiality)
- ***Sample Size***
  Simple approach to the calculation of sample size with easy to follow examples.
- ***Randomization***
  Rationale for acceptable and unacceptable methods for random allocation of subjects, when and how to stratify the randomization.
- ***Blinding***
  Why is blinding important and how can blinding best be maintained and measured in a clinical trial?
- ***Measurement of Disease-Specific Quality of Life***
  Brief description of the appropriate methodology for the development and evaluation of outcome tools measuring health-related quality of life.
- ***Knee Outcomes***
  Review of the existing outcome tools for the knee and recommendation on selection of appropriate tools for clinical trials of various knee conditions.
- ***Shoulder Outcomes***
  Review of the existing outcome tools for the shoulder and recommendation on selection of appropriate tools for clinical trials of various shoulder conditions.
- ***Practical Administration of Clinical Trials***
  Practical methods for successfully recruiting patients, maintaining them in the trial and preventing cross-over, contamination and drop-outs.

Most of the work required to complete this syllabus involves reviewing and summarizing existing methodologic data and providing illustrative examples specific to orthopaedic surgery. Two of the chapters (Shoulder Outcomes and Knee Outcomes), however, require original scientific work to be completed prior to their completion. Because there is very little published or presented work on the content validity and responsiveness of the existing outcome tools for the shoulder and knee, we are proposing to collect this data. We believe this is the only way to make an informed recommendation about the relative merits of the various tools.

***Project* 1**
Content validation of the Shoulder Outcome Tools: The frequency of endorsement and the importance of the items existing on the currently available shoulder outcome tools will be documented in three separate shoulder populations (cuff, OA, instability) and compared.

***Project* 2**
The responsiveness of the shoulder outcome tools will be documented and compared.

***Project* 3**
Content validation of the Knee Outcome Tools: The frequency of endorsement and the importance of the items existing on the currently available knee outcome tools will be documented in three separate knee populations (ACL reconstruction, OA, meniscal tear) and compared.

***Project* 4**
The responsiveness of the knee outcome

tools will be documented and compared.

Progress Report

Projects 1 and 2 are under way at one center. The protocol for project 3 has been written and is under review by the ethics review board of the University of Western Ontario. Project 4 requires further coordination prior to starting.

The committee will be meeting both in Dallas at the AAOS Annual Meeting and in Rome at the ESSKA meeting in order to define specific tasks and to set clear deadlines for the required work.

Knee Committee

Paolo Aglietti, M.D., Italy, Chairman

In 2001 the Knee Committee organized an interim workshop in Florence, Italy, titled "Total Knee Replacement in the Relatively Young and Active Patient With Osteoarthritis." A book summarizing the discussed topics was distributed during the Montreux Congress and a selected group of workshop speakers (both committee members and special guests) were invited to discuss the results of the workshop in a special Congress symposium.

The Knee Committee is now planning another interim workshop in Florence to be held November 28 through December 1, 2002, titled "PCL Reconstruction" and organized by Chris Harner. Confirmed participants at present are: A. Amis, D. Barrett, J. Bartlett, K.P. Benedetto, J. Bergfeld, P. Chambat, K.M. Chan, P. Christel, L. Engebretsen, R. Jakob, M. Kelly, R. LaPrade, P.P. Mariani, U. Munzinger, P. Neyret, O. Mitsuo, M. Soudry and B. Tietjens. A book with the presentations, the discussion and talks will be prepared again and will be distributed at the 2003 ISAKOS Congress in Auckland. A symposium with the highlights of the workshop will also be organized.

Finance Committee

Kai-Ming Chan, M.D., Hong Kong, Chairman

The Executive Board met in Chicago on November 16-19, 2001. ISAKOS has established the ISAKOS Industry Advisory Board (IIAB) to spearhead a fund-raising campaign for future development of education, research and promotion of the objectives of ISAKOS. We anticipate new revenue will be generated to support various initiative programs proposed by the academic committees.

The ISAKOS Executive Board has allocated funds for the following committee projects:

- **Arthroscopy Committee** $10,000
  Hip Arthroscopy for Synovial Chondromatosis; Jumper's Knee: Endoscopic Apex Resection
- **Education Committee** $8,000
  To support fellowship program
- **Knee Committee** $10,000
  A Closed Interim Workshop on the Posterior Cruciate Ligament scheduled for November 28 to December 1, 2002
- **Scientific Committee** $12,000
  A Syllabus on Methodology for Clinical Trials in Orthopaedic Surgery
- **Sports Medicine Committee** $5,000
  Current and Evolving Strategies in the Diagnosis and Management of Chronic Tendonopathy
- **Upper Extremity Committee** $5,000
  Register of Neurological Complications Relating to Upper Limb Arthroscopy for presentation as a symposium or instructional course lecture at the 2003 ISAKOS Congress

Education Committee

W. Jaap Willems, M.D., Netherlands, Chairman

During the 2001 ISAKOS Congress in Montreux, the Education Committee discussed new possibilities for spreading knowledge in the areas of arthroscopy, knee surgery and orthopaedic sports medicine. Our activities to date have centered on the ISAKOS-Approved Teaching Center program, the recruitment of funds to support fellowships and educational contributions to the ISAKOS Congress.

As the committee continues to work, we are pleased to receive input from those who have additional ideas and proposals for teaching activities.

Teaching Centers

More than 140 ISAKOS-Approved Teaching Centers are now available to train surgeons in the specialties of arthroscopy, knee surgery and sports medicine. For those members who are able to teach young colleagues, we strongly suggest applying to be an ISAKOS-Approved Teaching Center. Application information is on the ISAKOS Web site at *www.isakos.com*.

We have been able to get financial support for Education Committee projects, some of which we will allocate to travelling fellows. Fellows who cannot afford to visit an approved teaching center will soon be able to apply for a grant.

In the near future, each center will be requested to evaluate its training activities for ISAKOS. Visitors to the centers will also be interviewed to comment on the training they received.

ISAKOS Congress

During the 2001 ISAKOS Congress in Montreux, the Education Committee organized a highly appreciated knot-tying course with the support of Mitek Surgical Products. The Education Committee will be more intensely involved with the program of the New Zealand congress.

Arthroscopy Committee

Andre Frank, M.D., France, Chairman

The Arthroscopy Committee has developed several initiatives to be implemented over the next two years. They include the development and implementation of multicenter studies, the standardization of arthroscopic surgery terminology and documentation, and the development of an online arthroscopic photo bank and instructional course.

Multicenter Studies

Overview

The Arthroscopy Committee will initiate two multicenter studies every two years, centering on original arthroscopic topics. The results of these studies will be presented at each ISAKOS Congress in a symposium format. They will be accompanied by a printed summary that will be available to all congress attendees and ISAKOS members. The Arthroscopy Committee currently has two studies ready to initiate for presentation at the 2003 ISAKOS Congress, and one study ready to initiate for presentation at the 2005 ISAKOS Congress.

Implementation

The Arthroscopy Committee will conduct these studies, advertising their status and opportunities for ISAKOS member participation via the ISAKOS Newsletter and ISAKOS Web site. Two study directors will be nominated by the committee. These directors will invite well-known centers to participate in the study. Additional centers, submitted by ISAKOS members, will be invited to participate as needed and as discussed and agreed upon by the study directors.

The Arthroscopy Committee will develop a documentation form and database for preoperative, intraoperative and postoperative findings. This form and database will be uploaded to the ISAKOS Web site for access by all participants. The Scientific Committee, chaired by Sandy Kirkley, Canada, will review the documentation systems and evaluate their data every three months. The Arthroscopy Committee will discuss the data results after one year, and

Spotlight on Teaching Centers:

Sports Injury and Arthroscopy Clinic, Coimbatore & Chennai, India

The Sports Injury and Arthroscopy Clinic at Coimbatore and Chennai (Madras) is an exclusive arthroscopy and sports injury unit run privately with the help from banks. Approximately 40 arthroscopic surgeries are performed here every month. Out of this 80% are knee arthroscopies including anterior cruciate ligament (ACL) and posterior cruciate (PCL) reconstruction. The remaining are shoulder and other joint arthroscopic surgeries. Shoulder arthroscopy is not yet popular in our country due to lack of awareness among both the general public and surgeons. Due to socio-economic differences and geographic locations, work is done at the two cities in South India, involving travel from place to place. Teaching is done in association with the Indian Arthroscopic Society, World Orthopedic Concern and other local regional orthopedic associations.

Young surgeons from all over India are given an introduction and as much training as possible. They come for a specified duration and observe, as well as scrub, for the cases. They also participate in the clinical discussions. We hope to get support from industry, so that models and hands-on equipment can be housed in the hospital for the trainees to gain experience. In the last academic year 11 surgeons underwent the program.

During the last academic year, we have participated and conducted the following programs:

a. **Basic Arthroscopy and Hands-on Workshop:** August 27, 2000, at St. James Hospital Chalakudy, Kerala. 75 delegates attended. The workshop included three live surgeries of the knee.
b. **Basic Arthroscopy Workshop:** October 21-22, 2000, at Dibrugarh, Assam- Northeast India. 50 delegates attended, hands-on knee models and four live surgeries.
c. **Recent Advances in Arthroscopic Surgery Symposium/Workshop:** November 18-19, 2000, at G.K.N.M. Hospital, Coimbatore, South India. This symposium was approved by ISAKOS. More than 95 orthopedic surgeons from all over India participated: 4 live surgeries were performed. The faculty from overseas were Dr. Mark Ferguson, South Africa, Dr. Daan Du Plesis, South Africa, Dr. Alwin Jaegar, Germany, and Dr. S. Gopalakrishnan, USA
d. **1st Arthroscopy Workshop:** March 5-6, 2001, Department of Orthopaedics, at Regional Institute of Medical Sciences, Imphal, Northeast India. 50 delegates attended, 5 live demonstration surgeries were performed. This medical college department owned arthroscopy equipment and were taught as to how to use and maintain them.
e. **Hands-on Workshop Arthroscopic Surgery of Knee and Shoulder:** July 20-21, 2001 at Ambedkar Medical College, Bangalore, South India. 70 orthopaedic surgeons attended; 3 live surgeries were performed.
f. **Basic Course on Arthroscopic Surgery of the Knee:** October 20-21, 2001, at Sundaram Medical Foundation, Chennai. More than 50 surgeons and trainees attended; 2 live demonstration were performed.

The surgeons from the region assemble to have a hands-on model experience. The main teaching is done by live demonstration of cases, which are popular.

Any ISAKOS member who would like to visit is welcome.

present the results at the following ISAKOS Congress.

The Studies

Hip Arthroscopy for Synovial Chondromatosis
Directors: Michael Dienst, MD, Germany, and Romain Seil, MD, Germany
Participants: Thomas Byrd, MD, Nashville, USA; Henri Dorfmann, MD, Paris, France; and Richard Villar, FRCS, Cambridge, UK; others to be determined
Results: Presented at 2003 ISAKOS Congress
Objective: To evaluate/compare the following :

- Etiology, pathogenesis and clinical course of the disease. The disease appears to be an excellent entity for evaluation of hip arthroscopy and preoperative examinations. The entity is clear, loose bodies are good indications for hip arthroscopies, and the entity likely affects both the central and peripheral compartments.
- Diagnostic specificity/sensitivity of preoperative imaging including X-ray and MRT/MRA or Arthro-CT compared to diagnostic hip arthroscopy. There are some studies that showed hip arthroscopy is superior to radiologic imaging for intraarticular loose bodies/chondromas. Newer techniques such as MR arthrography or Arthro-CT may show better results.
- Different techniques of hip arthroscopy with respect to positioning, portals, instruments and traction/no traction techniques with or without arthroscopy of the peripheral compartment of the hip. There is no consensus which technique should be preferred for hip arthroscopy. Because synovial chondromatosis is a synovial disease it may be found only in the peripheral compartment.
- Which operative findings (e.g., chondromalacia) and procedures (e.g., synovectomy) affect the outcome of arthroscopy.
- The outcome after hip arthroscopy for chondromatosis of the hip.

Jumpers Knee: Endoscopic Apex Resection
Directors: Bent Wulff Jakobsen, MD, Denmark, and C.N. Van Dijk, Netherlands
Participants: G. Kristensen, others to be determined
Results: Presented at 2003 ISAKOS Congress
Objective: A randomized multicenter study comparing open and endoscopic, surgical treatment of jumper's knee. A protocol has already been developed. Currently this protocol is prepared for verification by a Dutch Medical Ethical Committee. The protocol will include:

- Inclusion criteria: Anterior knee pain at the proximal patella tendon and tenderness resistant to conservative treatment (grade III tendonitis); thickening of the patella tendon evaluated by ultrasonographic examination (greater than 20% increase compared to the asymptomatic patella tendon of the other leg).
- Exclusion criteria: Previously surgically treated tendonitis of the patella tendon; Lesions of the lower extremities that might influence the results of treatment; age less than 18 years and greater than 15 years.
- Material: Patients who are randomized stratified according to age and sex; 100 patients with the chronic proximal patella tendonitis diagnosed by Alter Synografic examination, randomized to either:
  - Group 1: endoscopic surgical decompression of patella tendon; or
  - Group 2: open patella tenotomy.
- Method:
  - Group 1, Endoscopic Procedure: The scope is bluntly inserted below the patella tendon near to the apex of the patella and with the power shaver elevating and partial excision of the superior part of the fatpad below the patella. The patella tendon fibers are elevated from the anterior 5 mm surface of the inferior pool of the patella and the exposed inferior pool of the

ISAKOS Committee Meeting Schedule

AAOS Annual Meeting
Hyatt Regency Dallas, Texas, USA

Tuesday, February 12		
6:00 p.m. – 10:00 p.m.	Executive Board & Dinner	SANGER A Room
Wednesday, February 13		
7:30 – 8:15 a.m.	Membership	CHEROKEE Room
7:30 – 9:00 a.m.	Education	BRYAN BEEMAN Room
8:30 – 9:15 a.m.	Bylaws	CHEROKEE Room
9:15 – 10:45 a.m.	Upper Extremity	BRYAN BEEMAN Room
9:30 – 10:15 a.m.	Site Selection	CHEROKEE Room
10:30 – 12:00 p.m.	Communications	CHEROKEE Room
11:00 – 1:00 p.m.	Arthroscopy	BRYAN BEEMAN Room
12:00 – 1:30 p.m.	ISAKOS International Society Presidents' Lunch (Representatives from AOSSM, AANA, ESSKA, SLARD, APOSSM and ISAKOS. Separate invitations will be sent for this meeting.)	CROCKETT Room
12:15 – 2:15 p.m.	Sports Medicine	CHEROKEE Room
1:15 – 3:15 p.m.	Scientific	BRYAN BEEMAN Room
Thursday, February 14		
7:30 – 10:30 a.m.	Program & Breakfast	CUMBERLAND E Room
10:45 a.m. – 12:15 p.m.	Strategic Planning	CUMBERLAND E Room
12:30 – 2:00 p.m.	Finance & Lunch	CUMBERLAND E Room
2:15 – 3:45 p.m.	Board of Directors only	CUMBERLAND E Room
4:00 – 6:30 p.m.	Board of Directors with all Committee Chairs	CUMBERLAND E Room

Call for Abstracts General Guidelines

Authors will want to have the following information at hand when preparing to submit your abstract:

1. The complete contact information for all authors on the paper. It will help to know the ISAKOS Member ID Numbers of as many authors as possible. Member ID Numbers can be recorded from the ISAKOS Online Directory. Authors do not have to be an ISAKOS member to submit an abstract.
2. The abstract. Authors can either type the abstract directly into the online form, or upload it. Please note: graphics and tables will not be accepted. Text submissions only.

Guidelines:

1. Persons submitting an abstract to ISAKOS do so with the understanding that they and all authors listed on the abstract will abide by the conditions, deadlines, policies and decisions of the ISAKOS Board of Directors and Program Committee.
2. All abstracts for the ISAKOS Biennial Congress must be submitted ONLINE via the ABSTRACT APPLICATION FORM by 11:59 p.m. Pacific Standard Time on April 1, 2002. Abstracts will not be accepted after that date. Abstracts cannot be e-mailed separately to the ISAKOS Office; they must be submitted via the ISAKOS Web site through the online submission form.
3. The author must indicate on the abstract form if the abstract should be considered for paper, poster, or e-poster presentation. The ISAKOS Program Committee will make all final decisions on the mode of presentation. Efforts will be made to comply with the stated preferences.
4. Persons submitting an abstract to ISAKOS must understand that all attending presenters, authors, faculty members, etc. will be expected to register for the meeting and pay all registration and travel costs. No exceptions will be made. If your attendance is dependent on outside funding, please secure your financial aid before submitting your abstract.
5. If the abstract is accepted for podium presentation, all presenters must speak in English and be prepared to answer questions from the audience in English.
6. Persons submitting an abstract to ISAKOS must agree to sign a Financial Disclosure Statement and an American Food and Drug Administration Statement. Although ISAKOS is an international society, it receives its CME accreditation from the American Academy of Orthopaedic Surgeons, and ISAKOS abides by their requirements. ISAKOS does not view the existence of disclosed interests or investments as necessarily implying bias or decreasing the value of the presentation. These disclosures will not be seen nor taken into consideration when the abstract is considered for presentation.
7. Persons submitting an abstract to ISAKOS must sign a copyright transfer so chosen abstracts can be published in the journal *Arthroscopy: The Journal of Arthroscopic and Related Surgery*, in the ISAKOS Final Program, and online on the ISAKOS and *Arthroscopy: The Journal of Arthroscopic and Related Surgery* Web sites.
8. The same First Author may submit a limit of 3 abstracts for consideration at the 2003 ISAKOS Congress.

No submitted abstracts will be returned to the authors, and all authors must agree to the General Guidelines as stated above.

SUBMIT YOUR ABSTRACT ONLINE AT WWW.ISAKOS.COM

patella excised. The procedure can be performed in general anesthetics as an outpatient procedure. Post-operatively a soft dressing is applied and the patient can immediately start weight-bearing.

– Group 2, Open Patella Tenotomy Procedure: Under general anesthetics, as an outpatient procedure, the most tender part of the tendon is exposed through a vertical incision. A longitudinal incision through the proximal part of the tendon is performed, and the central 2-3 mm of the tendon is excised. The inferior pool of the patella is excised with a luer. Standard skin closure and a soft dressing follow. The patient can immediately start weight-bearing.

– Both Groups, Post-op Rehabilitation: Both groups will have the same post-op rehabilitation program. All patients can immediately begin weight-bearing and simple movement exercises. After two weeks skin stitches can be removed, and further instruction by doctor or physiotherapist can be offered regarding simple movement exercises. After six weeks both groups will start a physiotherapy rehabilitation program, consisting of active stretching and high-load excentric training.

- Evaluation of Results: A blinded observer will perform a clinical evaluation after 3 and 6 months, including an ultrasonographic evaluation of the tendon; all patients will have a VISA and KOOS questionnaire before surgery, and 1, 3 and 6 months following surgery.
- Effect measurements: Failure of treatment is defined as: pain in participation of sports activity, >10% thickening of the tendon evaluated by ultrasonographic examination; or complications resulting in drop-out of the study.

Continued on next page

Painful Meniscectomized Knee: Revision Arthroscopy

Directors: P. Djian, France; others to be determined

Participants: Every ISAKOS member willing to join the study and accept the protocol.

Results: Presented at 2005 ISAKOS Congress

Objective: This is a prospective study to evaluate the etiology of failures after arthroscopic meniscectomy, and to determine the best indication and delay for a revision arthroscopy. The study will consider:

- Imaging findings: Which imaging?
- When should we propose revision? Which clinical and imaging criteria?
- Arthroscopic findings: comparison between first and revision arthroscopy, and the correlation between anatomical findings, imaging and symptoms.

Standardize Terminology and Documentation of Arthroscopic Surgery

Overview

This project is well advanced by ESSKA in the areas of shoulder, knee and ankle, and should be finalized with the ESSKA Arthroscopy Committee.

The goal of this project will be to work on standardized definitions, terminology and classifications concerning arthroscopical findings (or to give an ISAKOS-ESSKA label on those that are accepted and used by the majority of the authors in the literature). The definitions, terminology and classifications should be practical, simple and deliverable. The most effective plan for the diffusion of these terms is still under consideration. Diffusion vehicles to be discussed include the ISAKOS Newsletter, ISAKOS Web site, a widely distributed printed book or a focus meeting.

Implementation

Several subcommittees have been established by the Arthroscopy Committee and have been working on this project since 1999. They include:

A. Shoulder: R. Seil, Germany
B. Ankle: C.N. Van Dijk, The Netherlands
C. Knee: P. Djian and B. Jakobsen, Denmark
D. Hip: T. Byrd, USA
E. Elbow: D. Ruch, USA
F. Wrist: G. Leblebıcıoglu, Turkey

Other Projects Under Consideration

Multicenter Study: Osteochondral Lesion of the Talar Dome

Directors: K.M. Chan, M.D., Hong Kong; other to be discussed

Participants: Members of the Arthroscopy and other clinical committees, to be discussed

Results: To be determined

Preliminary Outline:

1. History-Physiopathology-Classification: From this part we must agree for a standardized terminology and classification so the Berndt and Harty classification can be definitively thrown away
2. Imaging: X-rays (++), ArthroCTScan-MRI
3. Treatment
   a. Techniques
      i. Arthroscopic
         1. Anatomic study of the different approaches of the talus with and without distraction
         2. Different treatments: Internal Fixation, Excision - Curetage - Drilling, Mosaic (is it reasonable or even possible under arthroscopy?)
      ii. Grafts
         1. Osteocartilage: Mosaic
         2. Cancellous bone
         3. Chondrocytes transplantation
   b. Results
      i. Review of the literature
      ii. Results of ISAKOS multicenter studies. We must try to obtain imaging for an anatomical assessment.
4. Conclusions: Synthesis and Final Take-Home Message

Online Arthroscopic Instructional Courses and Online Arthroscopic Photo Bank

Develop a series of online courses (arthroscopic techniques and anatomical findings), and an online photo bank (small videos may also work) in collaboration with the Education and the Communication committees.

The Arthroscopy Committee feels that this will be a highly cost-effective initiative, limited only by the number of voluntary contributions (slides, videos and photographs) it can gather.

Attention all ISAKOS members:

ISAKOS and MCJ Consulting are working to develop educational programs worldwide. They are currently looking for teaching centers with a minimum of four stations, where ISAKOS could hold educational surgical skills sessions in the future.

ISAKOS and MCJ Consulting are requesting that you e-mail the ISAKOS Office with the name, address and name of the contact of any teaching centers in your area that may work as a future ISAKOS teaching site. Please take a moment to forward this information to the ISAKOS Office at *isakos@isakos.com*.

Upper Extremity Committee

Stephen S. Burkhart, M.D., USA, Chairman

The Upper Extremity Committee is developing a prospective evaluation and online complications registry.

The development is a prospective evaluation titled "The Natural History for the First Episode of Glenohumeral Dislocation." This evaluation will look at the outcomes following first-time shoulder dislocation undergoing conservative treatment. The project will be conducted with the help of the Scientific Committee. Radiological and clinical evaluations will be conducted using functional scores and quality of life index.

The second development is an online "Registry of Neurological Complications Relating to Upper Limb Arthroscopy." Due to the complexity of current arthroscopic procedures of the upper extremity associated with new technological treatment modalities, it will be necessary to set up a complication registry for arthroscopy of the upper extremity. Data collected in this registry will be very useful to ISAKOS members; a grant has already been allocated for its development. A password-protected area for ISAKOS members will be placed on the Web site for the registry. The project will be conducted in collaboration with the Arthroscopy Committee.

The results of the prospective evaluation and complications registry will be presented at the 2003 ISAKOS Congress in Auckland as a symposium or an instructional course lecture, if results are available.

Continued on page 16

SLARD Appoints New Leadership

During the 2001 ISAKOS Congress last May, the meeting of the members of the Latin-American Society for Arthroscopy, the Knee and Sports (SLARD), appointed new officials for the period, May 2001 to May 2002.

Dr. Rodolfo Carpignano of Argentina was appointed president and together with the rest of the officials for Argentina and with the agreement of the other countries, designated the Argentina 2002 Congress as the host for the second SLARD Congress.

The Latin-American specialists are held in very high regard internationally as a result of the continued efforts of those who are active at the international level.

This new board will foster SLARD as the meeting point for our colleagues in the region, bringing it into the orbit of ISAKOS, the leading society in our speciality.

Executive Board
Rodolfo Carpignano, President (Argentina)
Eduardo Zamudio, Vice President (Chile)
Gilberto Camanho, Past President (Brazil)
Alberto Pienovi, Secretary (Argentina)
Fernando Radice, Vice Secretary (Chile)
Mario Berenstein, Treasurer (Argentina)
Luis Valenzuela, Vice Treasurer (Chile)
Omar Lencina, Scientific Director (Argentina)
Camilo Azar, Vice Scientific Director (Chile)
Romeu Krause, Member-at-Large (Brazil)
Luis Vargas, Member-at-Large (Venezuela)
Carlos Suero, Member-at-Large (Uruguay)

Committee on Committees
Gilberto Camanho (Brazil)
Rodolfo Carpignano (Argentina)
Eduardo Zamudio (Chile)

Membership Committee
Alberto Pienovi, Chairman (Argentina)
Moisés Cohen (Brazil)
Fernando Radice (Chile)
Fernando Barclay (Argentina)

Scientific and Education Committee
Omar Lencina, Chairman (Argentina)
Camilo Azar (Chile)
M.Víctor Francone (Argentina)
Diego Pérez Espinosa (Argentina)
Daniel Slullitel (Argentina)

Finance Committee
Mario Berenstein, Chairman (Argentina)
Luis Valenzuela (Chile)
Laura Claro (Argentina)

Arthroscopy Committee
Jaime Wageck, Chairman (Brazil)
Guillermo Arce (Argentina)
Vicente Gutiérrez (Chile)
Alberto Araujo Álvarez (Peru)
Leonardo Tacus (Argentina)
Romeu Krause (Brazil)
Aleandro Ranalletta (Argentina)
Roberto Marcos (Argentina)

Orthopaedic Sports Medicine Committee
Luis Vargas, Chairman (Venezuela)
Fernando Radice (Chile)
Mingo Saluzzi (Argentina)
Paolo Rockett (Brazil)
Vicente Paus (Argentina)
José Luis Aparicio (Argentina)
Francisco Vergara (Chile)
Mario Larrain (Argentina)
René Abadía (Brazil)

Knee Committee
Gilberto Camanho, Chairman (Brazil)
M. Víctor Francone (Argentina)
Luis Valenzuela (Chile)
Carlos Suero (Uruguay)
Carlos Martín (Argentina)
Moisés Cohen (Brazil)

Communications Committee
Alejandro Rodríguez, Chairman (Argentina)
Angélica Orellana (Argentina)
Paulo Rockett (Brazil)
Víctor N. Henriquez (Chile)

Anterior Cruciate Ligament Graft and Fixation Choices

Ronald M. *Selby*, M.D., USA (*Point*), *and Donald* H. *Johnson*, M.D., *Canada* (*Counterpoint*)

Patella Bone-Tendon-Bone With Metal Interference Screw Fixation (RMS)

Ronald M. *Selby*, M.D., USA

Anterior cruciate ligament reconstruction is an increasingly common and increasingly successful operation helping many patients annually. It has become a predictably reliable treatment with consistently very good to excellent results. The results are in large measure due to the now longstanding gold standard of arthroscopically assisted bone-tendon-bone autograft with metal interference screw fixation. The technique is reliably predictable, while the tendon is consistently available in ample size and strength, and has the advantage of perfect immunologic matching and comes with a built-in self-replicating tissue bank capability. The entire graft composite – bone and tendon – grows back arguably within a few years. Contrast this with the hamstrings, which present variability in both length and girth and, as most believe, do not grow back.

Interference screw fixation allows ample pullout strength very near the articular surfaces. The radio-opaque appearance is useful in assessing postoperative X-rays and positioning relative to bone plugs and joint space. The only drawbacks may be in revision cases where they may be in the way, possibly implicated in late infections or causing mechanical symptoms necessitating removal. In a rare case of graft tunnel mismatch, many techniques have been described to allow other options for fixation with no added morbidity.

By its very nature of attaching bone (patella) to bone (tibial tubercle) it is already and always has been a ligament. Perhaps this helps in the "ligamentization process." This point cannot be made for the hamstrings, tibialis, Achilles or even quad tendon. The patella bone-tendon-bone technique allows for early accelerated aggressive rehabilitation in the postoperative period, championed by K. Donald Shelborne, M.D., USA, and is largely the procedure of choice for high-demand, elite athletes. In a survey of NFL team physicians a few years ago, bone-tendon-bone was the unanimous choice. When was the last time you heard of anything being unanimous in sports medicine, arthroscopy or orthopaedics?

This technique is certainly *not* the last word in anterior cruciate ligament reconstruction, for it does require harvesting perfectly functioning tissue from another part of the knee and leaving behind retained metal where bone normally resides. Most problems relate to the harvest site; kneeling pain is common, lasting up to nine to 12 months. For now and into the foreseeable future, at least until biologic scaffolds with enhanced growth factors become available, arthroscopically assisted patella bone-tendon-bone with metal interference screw fixation will remain consistent, predictably reliable, and in the hands of most, the treatment of choice for acute and chronic anterior cruciate ligament deficient knees.

Hamstring Graft Fixation With Bioabsorbable Interference Screw Fixation

Donald H. *Johnson*, M.D., *Canada*

One should always have an option in ACL reconstruction, and the hamstring graft is that option. The patellar tendon autograft fixed with metal screws has been the preferred method of ACL reconstruction over the past decade. This procedure has been efficacious to return the athlete to a high level of competition. However, we have seen an increase in the number of ACL injuries in recreational athletes who also want to return to sports but have a full-time day job. The intensive and time-consuming rehabilitation program may not always be followed as closely or with the dedication of the university or professional athlete. If this part-time athlete gets a stiff knee or even tightness of the patellofemoral joint resulting in anterior knee pain, he/she is a difficult patient to manage. The interesting phenomenon that I have observed over the past few years is that the demand for the hamstring ACL reconstruction is patient-driven. Our patients go to physiotherapy after the ACL injury and see others who are recovering from reconstructive surgery. When we discuss graft options, they say, "I'll have what she had," the hamstring graft, because of the minimal post-op morbidity.

The issue of fixation of soft tissue grafts remains controversial. Interference fit screw fixation is bone quality dependent and may require secondary fixation in the middle-aged patient with osteopenic bone. The extension of the use of bioabsorbable screws is a logical step from the metal screws. One needs only to learn a technique using guides that reliably places the tunnels in the correct position and the rest of the operation is the same. The interference fit technique using bioabsorbable screws is the same for patellar tendon as for hamstring. The main advantage of the bioabsorbable screws is the ease of revision. The position of tunnel may be seen on the post-op X-ray without the metal screws.

The long-term outcome of both graft choices seems to be about the same. However, the short-term morbidity with the potential for knee stiffness is greater with the patellar tendon autograft. I think that you should always present the hamstring graft as an option to the patient considering ACL reconstruction.

Arthroscopy Viewed From the Southern Hemisphere

Alberto Pienovi, M.D., Argentina, Arthroscopy Association of Argentina President

The last 20 years of promotion and development of arthroscopy has allowed specialists to renew their knowledge of orthopaedics, anatomy and physiology of the musculoskeletal system. It has not only meant the incorporation of technology into our surgeries, but it also has changed the interpretation of the anatomic structures, their function and the analysis of lesions and their treatment.

During the past two decades, arthroscopy was promoted all over the world and was used as a basis to explore and interpret this science, developing techniques that presently allow us to be more precise in the repair and reconstruction of tissues. There is no doubt our specialty is not the same after arthroscopy.

Nowadays the development of our specialty is such that has exceeded our own expectations. The enthusiasm of its leaders made it possible to develop techniques with scientific basis and to achieve a change in the education, which had to pursue technology in an enthusiastic race.

But this is only the beginning. We are waiting for the integration of digital technology to surgery, maybe with electronic guides, three-dimensional surgical reconstructions, the keyboard and mouse in the operating room, bioengineering labs and whatever our creativity may imagine.

Presently, those who were part of that evolution are obliged to continue with the organization and transmission of new facts all over the world.

Some events marked the change of century, certainly having an influence in our lives and our profession. Two of them had a special repercussion: communication and globalization. Those tools are at our disposal to be used in learning, especially by those surgeons in far-away countries.

Communications, through digitalization and electronics, allow us, through the Internet, to reach in real time the farthest places in the world and each time in a less expensive way. The restless spirit of arthroscopic surgeons is evident. They immediately used this technology for different purposes: video conferences, live transmissions from the operating room, online discussion forums and in many other ways that are incorporated from time to time.

Furthermore, the improvement in the means of transport stimulates the use of the best way of teaching: "person to person" as more colleagues are able to assist in international meetings or to participate as fellows or observers in different teaching centers in the world.

In this way, young surgeons and colleagues from far away countries can take good advantage of these technological improvements to be updated with the latest advances.

ISAKOS has been leading this sudden evolution during the last five years. This organization as well as its members are very proud of this fact, but therefore are responsible for the promotion of knowledge, new surgical techniques and investigation, to help improve professional performance and the lifestyle of those who practice this exciting specialty.

ISAKOS has a gold mine in its hands.

2003 Congress Award Programs

John Joyce Award
Sponsored by Smith & Nephew Inc., Endoscopy Division
Cash award of $1,500 US awarded for the best arthroscopy paper read during the scientific program in Auckland. All arthroscopy papers presented at the 2003 ISAKOS Congress are automatically considered for this award. Second and Third Place awards of $750 US are also granted.

Achilles Orthopaedic Sports Medicine Research Award
Sponsored by Aircast, Inc.
$3,000 US honorarium is awarded to researcher(s) who have performed the most outstanding clinical or laboratory research in the field of orthopaedic sports medicine. Complete manuscripts must be uploaded to the ISAKOS Web site for consideration by October 1, 2002. See *www.isakos.com* for details!

Albert Trillat Young Investigator's Award
$3,000 US honorarium awarded to a young researcher who has done outstanding clinical or laboratory research contributing to the understanding, care or prevention of injuries to the knee. All applicants must be under 40 years old at the time of the 2003 Congress, March 10-14, 2003. Complete manuscripts must be uploaded to the ISAKOS Web site for consideration by October 1, 2002. See *www.isakos.com* for details!

Ten Rules of Surgical Technique of Total Knee Arthroplasty, Employing a Common-Sense Design of Patella Implant: Three Years of Clinical Experience

David G. Mendes, M.D., Israel, Oren Schwartz, Jamal Onallah, Ronny Imberg and Mazen Said

Patella resurfacing in total knee arthroplasty is an issue of controversy that results from the statistically poor performance of patella implants. It is estimated that two-thirds of patients undergoing knee replacement have the patella resurfaced. Indeed the clinical evidence expressed in the literature regarding the benefit of patella resurfacing[1-16,31] outweighs that of non-resurfacing.[17-24]

In our opinion the basic fault of conventional designs is the inadequate thickness of the polyethylene.[25-28] Therefore an innovative patella was designed with a concave undersurface and a convex (dome) articulating surface and a uniform thickness of the entire implant at all points of contact (Fig. 1). Ten rules of surgical technique were set to optimize the position and orientation of the three prosthetic components of knee arthroplasty.

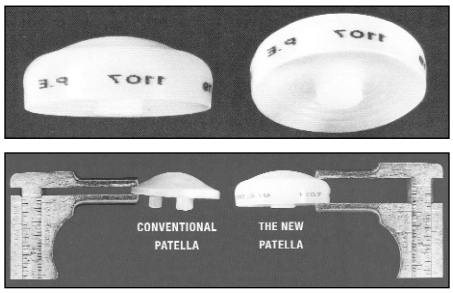


Fig. 1.

124 consecutive patients underwent total knee arthroplasty employing the following ten rules:

1. **Downsizing of Components.** Estimation of the appropriate components sizes followed measurements by scaled computed tomography of the three articular surfaces. The choice at surgery was toward downsizing of the components. (Fig. 2).

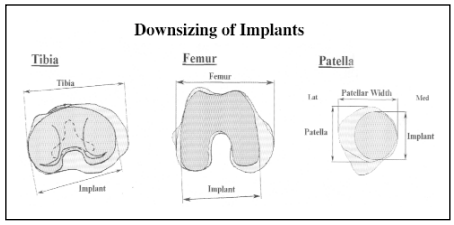


Fig. 2.

2. **Joint level.** The tibial cut, perpendicular to the frontal long axis of the tibia and in posterior inclination, removed a slice that prepared the space for the appropriate thickness of the tibial component and preserved the anatomical joint level.

3. **Flush anterior cut of Femur.** Placement of the femoral jig for the frontal cuts aimed initially for the anterior femoral cut, that was flush with the anterior cortex of the femoral shaft to allow for maximal space for the patello-femoral articulation.

4. **External rotation and lateralization of Femoral component.** The external rotation angle (Epsilon) of the femoral jig aimed at removing a thin (2-3 mm) bony slice from the lateral condyle, sufficient for fixation of the postero-lateral aspect of the femoral component (Fig. 3). Downsizing of the femoral component when required, allowed further rotation than indicated by the (Gamma angle) epicondylar axis. Upon completion of preparation of the femur the femoral component was positioned laterally (Fig. 4). The final position achieved lateralization and external rotation of the femoral component.

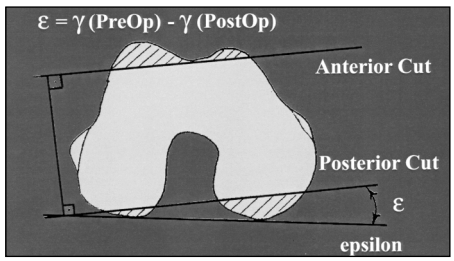


Fig. 3.

Fig. 4.

5. **Three degrees valgus distal cut of Femur and excision of posterior osteophytes.** Seven degrees of valgus of the knee was excessive for most patients and frequently caused the knees to rub against each other during ambulation. Five degrees of valgus were also excessive for similar reason. Presently our routine is a distal cut of 3 degrees of valgus. This is done for medial compartment as well as for lateral compartment disease. Prior to finalize the position of the femoral component, the osteophytes located at the posterior aspect of the femur were excised to avoid impingement of the tibia in flexion.

6. **Lateralization of Tibial component.** The tibial jig was positioned laterally with its lateral border matching over the lateral cortical border of the tibia, achieving lateralization (Delta T) similar to the femoral component. That position allowed a comfortable seat of the conical clover leaf keel within the tibial canal and enhanced its cortical fixation (Fig. 5 a&b).

Fig. 5a.

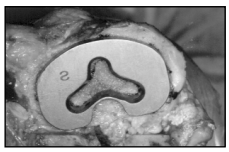


Fig. 5b.

7. **External rotation of Tibial component.** With its lateral border positioned over the lateral cortex of the plateau the tibial com-

ponent was externally rotated until the middle of its anterior aspect faced the middle of the tibial tuberosity. That position achieved external rotation and lateralization (Theta angle) of the tibial component (Fig. 5 d&c).

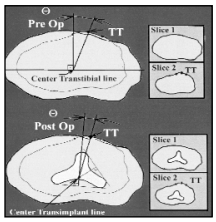


Fig. 5c.

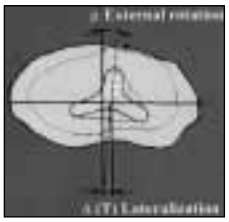


Fig. 5d.

8. **Medialization of the Patella.** The initial frontal planar cut of the patella retained 15 mm of bony thickness (Fig. 6). This cut provided a sagital plane for medialization of the patella component. The infero-superior diameter of the articulating aspect (not including the distal pole) of the bony patella dictated the size of the component. Upon marking of the medialized position of the component, the location of its apex closely replaced the ridge (Fig. 6).

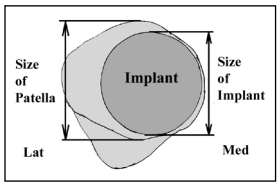


Fig. 6.

9. **Preparation of the patella.** The concave reamer, guided by the sleeve of the patella holder, created a dome surface of the bony patella that was bordered by a 2-3 mm thick circumferential wall and accommodated a central shallow hole (Fig. 7a). The shallow hole within spongy bone did not risk the main anterior bony blood supply of the patella[29] and did not risk the strength of the anterior dense bony wall. The convex bony dome surface accepted the conforming surface of the concave component and provided sufficient space for the peripherally thick patella implant (Fig. 7b). The circumferential wall significantly enhanced the strength of the bony patella[30] and with the shallow central hole, enhanced the shear strength of fixation of the implant. As a rule the final maximal combined thickness of the bone and implant was the same or less than the thickness of the native patella.

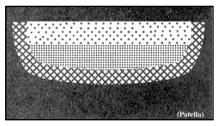


Fig. 7a.

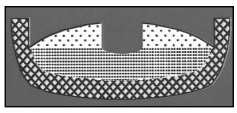


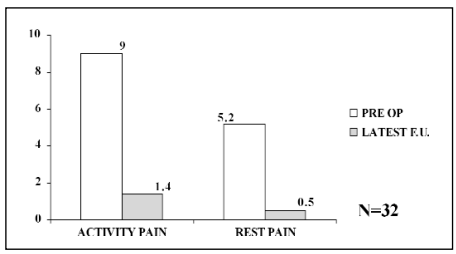
Fig. 7b.

10. **Avoid impingement of lateral Patella.** Resection of the uncovered lateral edge of the bony patella prevented impingement against the trochlear grove of the femoral component, and cut the attachment of the patello-epicondylar (femoral) ligament and reducing the lateral tension without a formal lateral retinacular release.

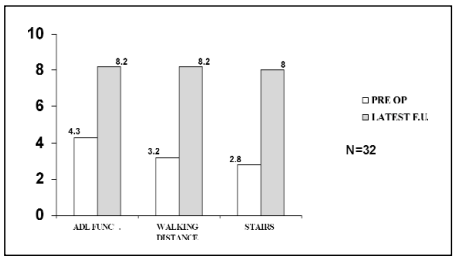
Results

The clinical data are expressed for the prospective follow-up of the cohort group of the first 32 patients for up to 40 months. Two patients died 8 months and 24 months postoperatively, respectively, and one patient encountered lymphoma that affected her clinical results. During surgery, in two patients a minor crack of the tibial plateau was noticed but did not require any change in the routine of cementing the components. Four patients sustained delayed healing of the operative wound, and two of them required secondary suture. One patient sustained a traumatic supracondylar fracture of the femur three months after surgery that was treated and healed within a plaster cast.

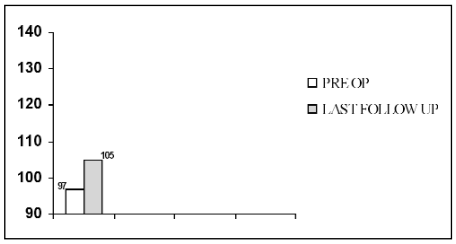
Rest pain score (10-0) improved from 5.2 to 0.5. Activity pain score (10-0) improved from 9.0 to 1.4 (Graph 1). Walking score (0-10) improved from 3.2 to 8.2. Stairs climbing with the operated leg (0-10) improved from 2.8 to 8.0 and ADL Function (0-10) improved from 4.3 to 8.2 (Graph 2). Mean range of motion increased from 97 to 105 degrees with a range up to 140 degrees (Graph 3).



Graph 1.



Graph 2.



Graph 3.

Discussion

The 10 rules of surgical technique optimize the intraoperative and the clinical performance of the patello-femoral and the femoro-tibial joints. Two surgical goals guided us in setting the rules: diminishing the Q angle of the quadricep's mechanism through a variety of factors, and achieving balance of soft tissue tension on both sides of the patello-femoral joint and tibio-femoral joint.

To achieve these goals the surgical procedure was established on principles of arthroplasty rather than mere replacement. The components were judiciously downsized, the femoro-tibial joint was lateralized and placed in a slight position of external rotation. Constant contact of all articulating surfaces through 120 degrees of excursion was achieved and lateral retinacular release was not required.

The new concept of design of the patella implant aimed toward achieving optimal performance of the patello-femoral joint by overcoming established causes for the implant failure such as wear, breakage and patella instability.

The patella implant of convex-concave configuration with 8 mm thick periphery, at any contact point, was comfortably accepted and secured within the space available for the patello-femoral joint. The preservation of the dense peripheral structure of the bony patella maintained the required strength.[29] The short peg of the component and the shallow central hole did not jeopardize the

strength of the anterior bony wall and did not interfere with the main bony blood supply directed from the anterior wall posteriorly.[30] The thickness of the combination of bone and implant was equal at the apex to the thickness at the ridge of the natural patella. Closure of the retinaculum was comfortable. Healing of the operative wound was delayed in four patients unrelated to this particular procedure, and rehabilitation otherwise was uneventful.

External rotation of the femoral component guided by the use of the epicondylar axis as a reference point is sound in our opinion. However, not always was it sufficient in the individual case, to achieve a constant soft tissue balance of the tibio-femoral and the patello-femoral joints in the full excursion of motion without the need of lateral retinacular release. Our method provided the necessary extra few degrees of rotation.[32]

The net effect of external rotation and lateralization of the femoral component resulted in decreasing the Q angle of the quadriceps mechanism by lateral and rotatory relocation of the patella.

External rotation and lateralization of the tibial component followed the position of the femoral component. The net effect of external rotation and lateralization of the tibial component resulted in decreasing the Q angle of the quadriceps mechanism by medial relocation of the tibial tuberosity.

Matching the lateral border of the tibial component over the lateral border of the tibial surface allowed sufficient external rotation of the downsized component to face toward the tibial tuberosity.

Downsizing of components may raise a question of a possible migration of the tibial component. However, the experience that accumulated in our center during 26 years with a variety of implants never documented subsidence of the tibial component. The dense bone of the medial plateau and the cortical bone of the lateral plateau in all osteoarthritic patients was practically sufficient to support the component. The clover leaf shape of the keel in our design, that is cortically supported inside within the tibia further enhanced fixation and stability of the tibial component.

Judiciously downsizing the three prosthetic components facilitated the concept of arthroplasty vs. replacement and allowed matching the modular implant to the patient rather then vice versa.

In our opinion, the clinical results and the practically lack of complications in the cohort group of patients, proved the consistency and soundness of our approach in setting the 10 rules of surgical technique and in the routine use of the common-sense design of the patella implant.

Summary:

Ten guiding rules of surgical technique were implemented in 124 consecutive patients, who underwent total knee arthroplasty with a patella of a unique common-sense design. A cohort group of 32 patients were prospectively followed for longer than three years and resulted as excellent and good in 91%. No significant intraoperative complications were noted and no surgery-related complication affected the postoperative course. None of the components showed any sign of failure.

In our opinion the use of this biomechanically reliable patella implant will regain long-term confidence of surgeons in patella resurfacing.

References are available on request from the ISAKOS *Office.*

Editor's Note

(*Continued from page* 2)

remove the primary tumor (the terrorists' power base); identify and suppress any metastases (terrorist groups in remote locations); and prevent recurrence of the primary tumor (vigilant control of recurrent terrorist activity). Cancer, like terrorism, capitalizes on ignorance to enhance and heighten the effect of fear. Educating ourselves about the enemy allows us to respond appropriately. The more we know, the less we fear.

The unexpected revelation that has become clear to me is spiritual renewal must accompany the fight against terrorism as well as the fight against cancer. For me, this has been a time of intense soul-searching and self-evaluation as I have been forced to confront my own mortality. After the initial roller coaster of emotions, I am now blessed with a sense of tranquility and acceptance I owe entirely to the love and support of my family, my friends and my God.

I consider myself fortunate to have a good friend who is a devout Muslim. He was born in Pakistan, immigrated to the United States with his parents at age 12, and is now an American citizen. He is deeply concerned about the misrepresentation of the Islamic faith by fanatic zealots such as Bin Laden and his followers. Despite the zealots' ranting, there is nothing in the Koran to support the jihad they are trying to incite. In fact, my friend is quick to point out mainstream Islam is a religion of peace, knowledge and love, and attempts to twist its message have been done for selfish reasons by ambitious "leaders" who seek power by means of hate and ignorance.

As we deal with terrorism in our own minds and souls, we must not blame innocent people for these acts just because they are of the Muslim faith. We must place the blame squarely on the cowardly leaders that have twisted the religious message of their fathers' faith. Hopefully the whole world will recognize that great leaders do not hide in caves.

As for my own personal bout with cancer, I am very optimistic. My doctors are confident that the surgery will produce a cure, and I trust them. As a surgeon, it is very difficult to admit that I have relinquished control to others. But as I see it, my job is to find the best people to treat my medical problem, then to trust them implicitly. And I do. Doctors should try to be good patients, too.

Spiritual renewal is the most difficult but most rewarding of all the processes, whether one is dealing with the cancer of terrorism or the terrorism of cancer. We must trust in God to impart wisdom to our doctors and to our leaders. We must not let zealots and fanatics use religion to justify hatred, war and murder. We must pray for peace. After all, we are all praying to the same God.

Evolution of the Treatment of Meniscal Lesions

Ramon Cugat, M.D., *Spain*

Introduction

The meniscus is a fibrocartilaginous structure inside the knee joint, which among other functions, serves to absorb the pressure between the femur and the tibia, to stabilize the joint and to assist in knee movements.

The aim of this discussion is to underline the importance of the "meniscectomy" sign, that is, to study the current status of the meniscus. After thorough examination, one should consider how to prevent osteoarthritis resulting from lack of the meniscus.

Early Anatomo-Pathologic Studies

The first meniscus studies were found among Hippocrates' works, 460-370 B.C., which already referred to patellar subluxations and meniscal ruptures. Years later, in 1731, Bass discovered a lesion of the inner meniscus. Bromfield, 1713-1792, observed the incapacities produced by the meniscus and found accidentally that when performing a gentle flexo-extension of the knee, the dislocated meniscus would reduce to its original position, and the patient would quickly recover. Subsequently, his disciple William Hey described the joint blockages and introduced the "Internal Derangement of the Knee" concept. The first case of his series was described in 1782 (1,2,3,4).

Years later, Robert Jones reiterated the displaced cartilage with locking. The treatment of this condition aims at the restoration of the power of extending the knee fully without pain. If the displaced cartilage is fully reduced, the knee can be fully extended both actively and passively, without pain. If this cannot be done, the cartilage is not reduced (5).

Beginnings of Meniscal Surgery

The age of meniscal surgery starts in 1866. Brodhurst was the first to perform a meniscectomy (5). He was followed by Mandl, Lister, Margary, Tedenat, Tavernier, Mouchet and others (6). All of them treated meniscal injuries by removing the injured tissue. However, in 1883, Annandale set up a new surgical treatment: the suture. He was the first in history to suture a rupture of the anterior horn of the medial meniscus. Kalina was another supporter of the meniscal suture in peripheral lesions with no meniscal subluxation (6,7,8,9).

Controversy about the treatment of meniscal injuries had started. Which was the best solution – to remove or to suture?

At that time balance swung in favor of meniscal exeresis though there were two different trends: those who totally removed the meniscus such as Harry Platt, Ricklin, Ruttimann, Boow, Buerkle, De La Camp, DePalma, Nicolet, Smillie, Wachsmuth Watson Jones; and those choosing partial removal: Böhler (10,11).

Complementary Diagnosis Tests

At the beginning of the 20th century, there was no unanimous criterion for surgical treatment, but the orthopaedics unanimously reported an error percentage in the diagnosis of meniscus injuries: Martin, 4% to 5%; Dunn, 13.66%; Bristow, 7.2%; Smillie, 6.33%; Murdock, 4.5%; and Trillat, 4%. To make up for this lack, complementary tests, radiology and arthrography, were carried out. Palmer and Lindblom were the first to perform radiological tests, in 1938. The arthrographic examination contributed further information on the knee joint. Arthrography is performed according to three different techniques: the gaseous, carried out by, among others, Sommerville, Andersen, Serra de Oliveira, Merle d'Aubigné, Judet, Archimbaud, Cabot, Bonte and Decouex; the mixed technique, performed by Oberholzer, Bircher, Van de Berg and Crevecoeur; and the opaque media put into practice by Palmer, Lindblom, Rieunau, Ficat, Ecoiffier, Leroux and Lagarde (12).

Arthroscopy

Besides those studies, a new diagnosis and therapy technique, which years later would revolutionize knee surgery, was also born at the beginning of the 20th century: arthroscopy. In 1912, the Danish Nordentoff visualized inside a knee with the help of an optical instrument without performing any arthrotomy. Almost at the same time, in 1918, the Japanese Takagi and the German Bircher in 1919 achieved the same result (13,14,15).

The Japanese school was the most outstanding in the development of this technique. On the 9th of March 1955, Watanabe started applying arthroscopic surgery performing two portals: one for the arthroscope and the other for the surgical tool. And on May 4, 1962, he performed a partial arthroscopic meniscectomy for the first time in history. Jackson took this knowledge to Canada and started disclosing it all over the continents (16,17).

Despite these facts particularly significant to this surgical technique, until the mid-'70s, arthroscopy was a diagnosis technique fully accepted by orthopaedic surgery society. From 1975, it invaded universities, public and private medicine, turning into a subspecialty strengthening as diagnosis and surgical technique in daily practice.

Meniscus Substituted Anatomic Structures of the Knee

In 1917, Hölzel published a case study of a rupture of both cruciate ligaments and the surgical technique used to repair the lesion. The external meniscus substituted the cruciate ligament and the conclusions stated that, after six weeks and a sudden movement, it broke (18).

Other authors such as Bircher, Wittek, Zur Verth, also used the meniscus to substitute the broken cruciate ligament (19).

Problems

In parallel with the development of the application of diagnosis and surgical techniques, the above mentioned results were published. In 1887, Sutton had assessed the increased stress on the leg muscles caused by the lack of a meniscus. In 1904, Fick published that after removing a meniscus a void inside the knee was created which was filled by fibrocartilaginous tissue that would never

reach the size of the original tissue. In 1922 Ahmed published that total meniscectomy produced a reduction in the contact area, and therefore increased pressures on the articular surface. In 1948 Fairbanks published that the meniscectomy was not so innocuous. Smillie also published his observations on the radiological alterations seen after meniscectomy. (20,21,22,23).

In 1992, Ahmed published total meniscectomy produced a reduction of the contact area, and therefore, pressures increase on it (24).

Meniscal Preservation

The reports of the problems subsequent to meniscectomy led many surgeons to look to other alternatives for the treatment of meniscal tears. In the 19th century, Annandale published his experience on meniscal suture and in the following century studies on meniscus vascularization and its possible cure were performed. King achieved them with dogs, and Policard, Arnoczky, Warren, Clark and Ogden with human beings. Coinciding with the explosion of arthroscopic surgery, Jackson, Dandy, McGinty, Gues and others published results proven to be better in partial meniscectomy than total meniscectomy (25,26,27,28,29,30).

Years later, DeHaven, Wirth and others bet on meniscal suture through open surgery in cases of peripheric ruptures. On the other hand, Ikeuchi and Henning voted for arthroscopic meniscal suture. In 1983, Ikeuchi and Henning published the results assessed according to the IKDC scale: preserved meniscus, 83; partial meniscectomy, 73; and total meniscectomy, 40 (31,32,33,34).

Results did not come out as satisfactory as expected, and thus new solutions were studied:

1. New adhesive elements: fibrin clot, synovial flap, frog glue, Arrows (35,36,37,38,39)
2. Scaffold (30,41)
3. Grafts

Meniscal Graft

At the beginning of the '80s, Mankin et al. marked the starting of the meniscal graft era, though this fact was not the main objective of the surgical intervention. They performed it because patients who had undergone bone exeresis through tumoral processes were implanted an osteochondral graft proximal to the tibia (42).

In 1987, there were already studies published on meniscal graft. One of these was the experimental and clinical study of the meniscal graft of Milachowski et al. German group, which collected the results of meniscal graft on animals and results of a group of 20 patients grafted with the internal meniscus from May 24, 1984, to July 1986. Another study dealt with a case of external meniscus graft performed by Keene's Australian group (43,44).

Garrett et al. published the results achieved in a group made up of six patients who had undergone a meniscal graft. The work covered the period June 1986 to March 1988 (45).

In 1990, Arnoczky et al. performed an experimental study on a group of dogs on which a meniscus graft had been performed using cryopreserved allografts (46)

On the basis of these preliminary studies, many knee surgeons have opted for meniscal graft. Results are promising but since it is a fairly recent technique, these results still cannot be valued at long term (47,48,49,50, 51,52,53,54,55,56,57,58,59,60).

Meniscal Surgery in the 21st Century

Even partial meniscectomy is deleterious. It is preferable to push the envelope of meniscal repair using the new all inside implants. Allograft meniscal transplants have promise with possible biological stimulation to improve incorporation. Future directions include bio-engineered meniscal implants (20).

References are available on request from the ISAKOS *Office.*

Your Committees at Work

(*Continued from page* 8)

Communications Committee

Donald H. Johnson, M.D., Canada, Chairman

The Web site has been successfully updated and moved to a new location with a new webmaster. The database of member information has also been updated with the most recent e-mail addresses. Remember to notify the ISAKOS Office if you change your e-mail address. This allows us to keep you updated by e-mail.

The Web site home page, *www.isakos.com*, now has a button to submit your abstracts online. This will make the process of submission much easier for both the presenter and the Program Committee.

What are we planning for the future? We hope to have an e-mail discussion list for all the members. This would allow you to send a question about a clinical case to everyone on the e-mail list and receive replies from around the world. This functions like a virtual grand round. We feel this is more effective than the bulletin board that is currently on the site, E-sakos. It seems that the busy orthopaedic surgeon does not go to the site to read the threads. However, if you find the time, visit the E-sakos bulletin board and read the most recent post on the HAGL lesion. Click on the "Upper Extremity" section. This was posted by Drs. Fernando Radice and Vincente Gutierrez from Santiago, Chile.

We also have plans for an image bank of clinical digital images and video to share with the members. If you need an image for a PowerPoint® presentation or a teaching handout, you could go to the image bank and download a picture to your computer. We would encourage members to submit their images to build up this database. This will be one of the committee initiatives supported by our current fund-raising drive.

Membership Committee

Moises Cohen, M.D., Brazil, Chairman

Membership in ISAKOS has continued to climb since its first meeting in Buenos Aires, Argentina, in May 1997. This continued climb can be attributed to a number of factors:

1. Proactive efforts by the Membership Committee, chaired by Moises Cohen, to propel membership campaigns and facilitate efficient application processes;
2. Increased member retention, as the number of applications outpaces the number of members dropped for nonpayment of dues;
3. A highly visible society marketing campaign begun in 1999; and
4. Continued growth of congress attendance.

International Societies, Presidents and Meetings Online

To further communication between societies of related specialties, ISAKOS has listed international societies, their presidents, and their upcoming meetings on the ISAKOS Web site.

Members are encouraged to visit the Web site at *www.isakos.com*. Societies that are not listed may submit a request to the ISAKOS Office.

Keep Your Member Information Current!

ISAKOS Members: Help us keep your information current! Please visit the ISAKOS Web site at *www.isakos.com* and check your listing in the online Membership Directory to verify we have your correct address, telephone numbers and e-mail address.

Please notify the ISAKOS office if any of your information is missing or incorrect**.**

Search the ISAKOS Membership Directory Online

ISAKOS encourages members who are looking for e-mail addresses or other contact information for colleagues to utilize the online ISAKOS membership directory.

Visit *www.isakos.com* and click on the "Directory" icon.

ACL Controversies: How I Manage the Partial ACL Tear

Donald H. Johnson, M.D., Canada

In clinical practice the management of the partial anterior cruciate ligament tear is still a vexing problem. First of all, what are we talking about here? The partial tear by definition is a history of injury to the knee, a 1+ Lachman test, with a good endpoint, a negative pivot shift test (or perhaps a mild pivot glide) and less than 5 mm side-to-side difference on the KT-1000. The MRI reveals a signal intensity change, but the ACL is intact. The significant feature is that the knee is stable to clinical examination. If there is a positive pivot shift, then this is an ACL deficient knee, and consideration should be given to reconstruction of the ACL. It is impossible to know if this is partial tearing or partial healing of the ACL. Did the ACL tear and heal back to the roof, the PCL or even the condyle?

Conventional wisdom says that the partial tear of the ACL does well with conservative treatment as long as there is more than 50% of the ligament still intact and connected to the correct anatomical position on the lateral femoral condyle. However, the dilemma that the physician faces when the patient is in the office with the above clinical findings is that he does not know how much ligament is intact and where this ligament is attached. This information can only be obtained by a diagnostic arthroscopy. At the time of arthroscopy, the ligament may either be more than 50% intact and in the correct position, or a small band less than 50% may be attached in the normal position, to the roof of the notch or to the PCL. In all these situations the knee will be stable. But, in the scenario of a small band attached to the roof or PCL, the next time the athlete pivots, the knee will shift and cause further damage to the articular surface and meniscus. The recommendation for the athlete who only has a small band attached is to have a reconstruction of the ACL to prevent further injury to the knee.

The second controversy arises when confronted with the partial tear of the ACL at the time of arthroscopy. When there is greater than 50% of the ligament intact but it is lax, should this be treated by thermal shrinking? We know that most of these injuries will do well and not become unstable, but does this slight increase in anterior-posterior motion cause damage to the articular surface and meniscus in the long term? Tom Carter from Phoenix has reported on good results of thermal shrinking of the lax native ACL tissue. This may be the ideal indication for heat shrinking of the ACL.

Upcoming ISAKOS-Approved Courses

18th International Jerusalem Symposium on Sports Medicine

March 20-21, 2002
Jerusalem, ISRAEL

For further information, please visit *www.sportsmedicine.co.il* or contact:

Dr. Gideon Mann
Unit of Knee Surgery & Arthroscopy
Meir Hospital, Kfar Saba, Israel
Regin Medical Center
P.O. Box 34400, Givat Shaul
Jerusalem 95483, ISRAEL
Fax: +972-2-6528231
E-mail: *gmann@sportsmedicine.co.il*

Ankle Arthroscopy and Hindfoot Endoscopy

May 10, 2002
Academic Medical Center Amsterdam
Amsterdam, NETHERLANDS

Registration Fees: *f* 750,--

Course content: Lectures, Live Surgery, General Discussion and Cadaver lab & Demo

For further information, please contact:

Mrs. M. Lammerts, Office Manager ORCA
Room G7-163
P.O. Box 22660
1100 DD Amsterdam
NETHERLANDS
Tel: +31 20 566 9111 (pager 62956)
Fax: +31 20 566 9096
E-mail: *m.lammerts@amc.uva.nl*

Argentina 2002 Arthroscopy Congress

May 22-25, 2002
Sheraton Hotel & Convention Center
Buenos Aires, ARGENTINA
For further information, please contact:
Asociacion Argentina de Artroscopía
Montevideo 1546 1st floor
1018 - Capital Federal
Buenos Aires - ARGENTINA
Tel: +54 11 4811-2089
Tel: +54 11 4816-8191
Fax: +54 11 4811-2389
E-mail: *artroscopia_arg@ciudad.com.ar*

3rd Heidelberger ACL Symposium

July 4-6, 2002
Heidelberg, GERMANY

For further information, please contact:

Intercongress GmbH
Carola Schröder
Krautgartenstr. 30
65202 Wiesbaden
GERMANY
Tel: +49 611 977 160
Fax: +49 611 977 1616

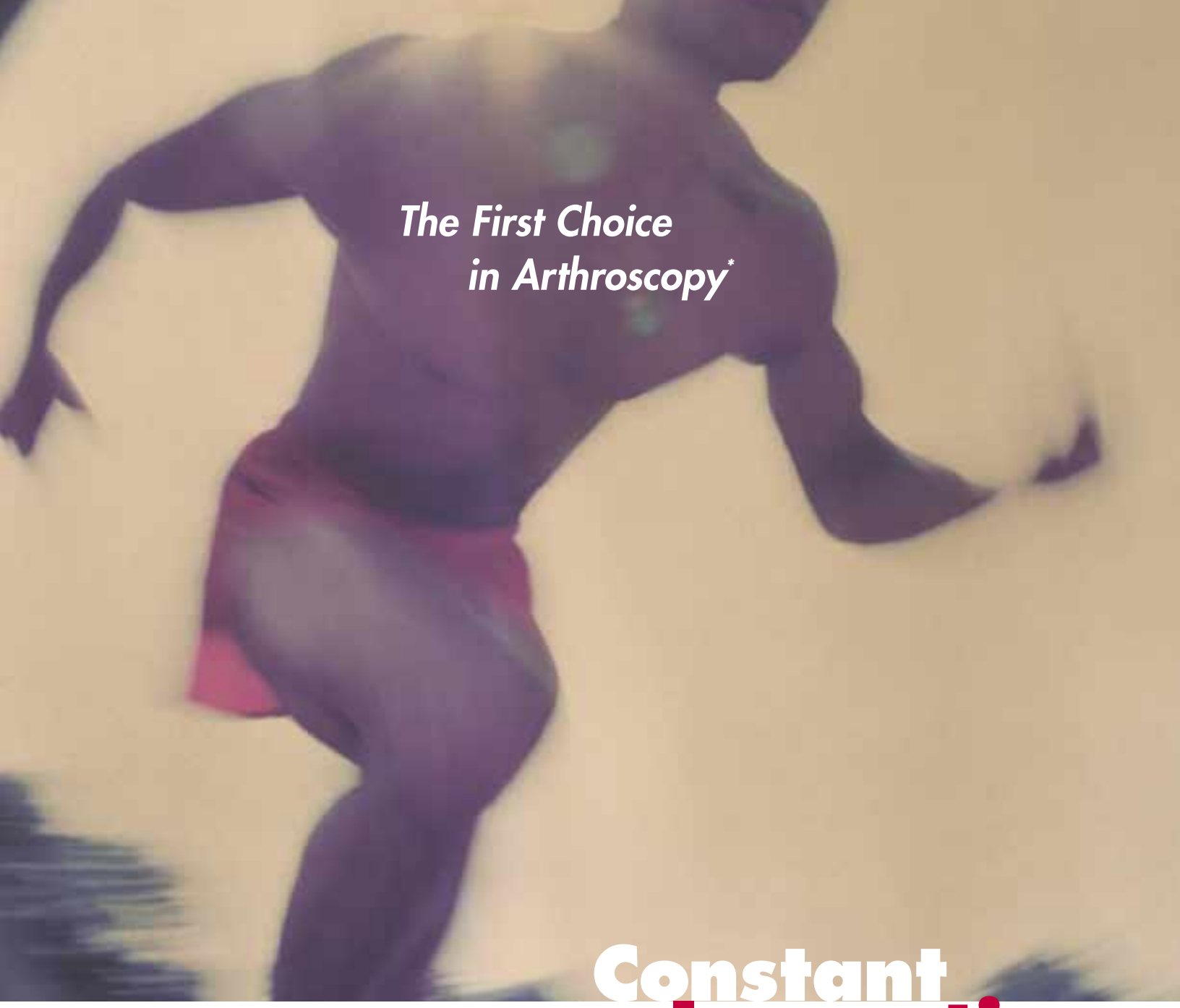
XXXVIII Chilean Congress of Orthopaedic Surgery and II Chilean-Peruvian Arthroscopy Journey

November 21-23, 2002
La Serena, CHILE

Course Content to include: Scientific Sessions on Sports Medicine and Orthopaedic Surgery; Instructional Courses; Lectures and Seminars

For further information, please contact:

Dr. Luis Valenzuela
2002 Meeting President
Dr. Fernando Radice
2002 Scientific Committee
Fax +56 2 206 9820
E-mail: *schot@schot.cl*



Constant Innovation

Smith & Nephew, Inc., Endoscopy Division is a world leader in the development and commercialization of endoscopic techniques.

As the recognized world leader in Arthroscopy, Smith & Nephew offers a complete line of anatomically targeted products.

Smith+Nephew

First Choice in Endoscopy

www.endoscopy1.com

*No. 1 in Arthroscopy, U.S. and European markets, Millenium Research Group, USOVE, March, 2000; EUEOO, February, 2000.

International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine
145 Town & Country Drive, Suite 106
Danville, CA 94526-3963 USA

Telephone: +1 (925) 314-7920
Fax: +1 (925) 314-7922
E-mail: isakos@isakos.com
Web: www.isakos.com

WINTER 2002
ISAKOS NEWSLETTER

2003 ISAKOS CONGRESS

MARCH 10-14, 2003
AUCKLAND, NEW ZEALAND

CALL FOR ABSTRACTS
DEADLINE: APRIL 1, 2002