

Newsletter

New technologies and high-quality Orthopaedic healthcare in the Russian Far East



In this issue

Editorial: New technologies and high-quality Orthopaedic healthcare in the Russian Far East, by Marius M. Scarlat	2
History of Orthopaedics: Ancient Fracture Management	4
Update in Orthopaedics: The role for arthroscopic partial meniscectomy in knees with degenerative changes	6
In Memoriam: Ridvan Ege	7
Fellowship News: Bezmialem Vakif University/SICOT Fellowship Report	8
Congress News: 38 th SICOT Orthopaedic World Congress, Cape Town – Plenary Speakers	10
Congress News: 24 th Cooperative Course for Polytrauma Management	12



New technologies and high-quality Orthopaedic healthcare in the Russian Far East

Marius M. Scarlat
SICOT Active Member & Editor-in-Chief of 'International Orthopaedics' – Toulon, France

Russia is always impressive! By its size, by its untouched nature with breathtaking landscapes and by its great people. When you arrive from Europe after a four-hour flight to one of the Moscow airports you think you are almost there. But then you embark on a long-haul huge jet that will cross two-thirds of the country and finally land eight hours later in the Capital of the Far East region – the city of Khabarovsk. Our Russian colleagues are used to flying many hours. There are longer flights, they say. To reach mythical Kamchatka you need to fly a further three hours from Khabarovsk...

The city has everything: large boulevards, shopping malls, museums, big hospitals, research centres, four or five hockey stadiums and arenas, amazing sports facilities, huge parks, a riverside promenade, and University. The Far-Eastern State Medical University was founded in 1930 (Photo 1). We were welcomed by the Pro-Rector who is a distinguished Orthopaedic Surgeon, Prof Valery E. Volovik (Photo 2) and by the Head of the Orthopaedic Department of the Second Regional Hospital, Dr Evghenyi Kvitschenko (Photo 3), who is developing minimally invasive techniques, arthroplasties and arthroscopy with state-ofthe-art tools. 4K screens and video, sterile cameras, multiple-angle view scopes and all tools are available. There is a great team of doctors and devoted staff and technical support including Iulia, Olga Alexandrovna, Marina, Vladimir, Serghey, Rodion (Photo 4). The team was empowered by the presence of Alexander (Sacha) Kapranov (Photo 5) who is a successful trauma surgeon from Nizhnyi Novgorod and Eduard N. Rakhmankulov who is a distinguished arthroscopic specialist from Ufa and a leading specialist in hip and knee arthroscopic reconstruction (Photo 6). The team participated in an advanced two-day course of arthroscopy for shoulder, knee and hip, with conferences and live surgeries (Photo 7 and Photo 8). The hospital has a modern conference room with transmission from the operating room, simultaneous translation system when needed and staff used to manage teaching and courses. The academic level is excellent and colleagues participating in the course came from different centres in the Region, with some having to take a more than three-hour flight. The audience was great and the interaction with the conference room was intense during

live surgery with questions, answers and demonstrations of operative techniques. Russian surgeons speak some English but for technical details a translation is needed.

Russia is currently modernising its health system and has developed a Federal Programme for new technologies and high-quality care. Modernity comes from Eastern Russia but also from neighbouring Asia and from the internet. It is also produced "in situ" with research programmes and publications. The quality and speed of communication are excellent and I was not surprised to learn that every Orthopaedic Department in the Region has a development plan and interactions with the academic institutions in Russia and abroad. The University of Khabarovsk Medical School has 2 corresponding members of the Russian Academy of Medical Sciences, 9 honorary doctors, 64 PhD students, and 259 specialists involved in teaching, including colleagues from Orthopaedics.

Overall, it was a strong experience at a place that combines tradition and modernity, outdoor life in the wilderness of the Amur River taiga with a state-of-the-art medical school and orthopaedic hospital department. The Khabarovsk area is home to the mythical giant tiger that can reach 5 metres in length. The Amur River nourishes in deep waters huge and tasty fish, the endless forest is populated with countless bears, deer and hinds - it is a paradise of wildlife. Khabarovsk doctors enjoy outdoor activities including fishing and hiking and I had the privilege to meet colleagues who are active hockey players, enjoying skating as much as we enjoy running in southern Europe or in other parts of the world. When I left this beautiful place with the huge jet that flies eight hours non-stop to Moscow I promised myself that we have to do more SICOT activities and exchanges with our colleagues.



Photo 1: The logo of the Medical University in Khabarovsk



Photo 2: Prof Valery E. Volovik, Orthopaedic Surgeon and Pro-Rectoris of the Medical University, chairman of the meeting



Photo 3: Evghenyi Kvitschenko MD, Head of the Orthopaedic Department, organiser and developer of new technologies and minimally invasive surgery



Photo 4: A part of the team at the Faculty Dinner



Photo 5: Alexander (Sacha) Kapranov, MD, Trauma Specialist from Nizhny Novgorod, an important part of the group giving an interview at the local TV station



Photo 6: Marius M. Scarlat and Eduard N. Rakhmankulov in front of Regional Hospital #2 of Khabarovsk

Photo 7 and Photo 8 on the cover page: Live surgery broadcasted in the Conference Room and interactive link with the colleagues during the live surgery

Ancient Fracture Management

Gandhi Nathan Solayar Seremban, Malaysia

The ability of humans to heal broken bones has contributed to the longevity of our species. Archaeological findings have shown evidence of healed fractures in Neanderthal bones dating back to 130,000 years ago. This article briefly looks back at the various methods used to treat fractures with particular attention to what the Ancient Egyptians and Greco-Romans had in their orthopaedic repertoire.

Ancient Egypt

By far, the most impressive literature pertaining to ancient methods of treatment derive from the Edwin Smith Papyrus. It dates back to the Second Intermediate Period in Egypt, circa 1600 BC. Unlike contemporary documents of its era (i.e. Ebers papyrus) which emphasise magic, it presents medical management from a scientific standpoint. There are 48 cases mentioned, however, only a handful of cases are complete which describe various fractures of the humerus. It details methods of traction using "something between the shoulder blades" and pulling until the fracture reduces. It appears that the immobilisation method is akin to modern day plaster techniques where the ancient physician applied bandages of cloth and alum. They appear to favour honey as an adjunct towards fracture treatment and would change the bandages regularly.

One description on the Edwin Smith Papyrus may well be the earliest documentation of open fracture reduction. It mentions a technique called "nekhebkheb" which means to "move, wiggle or crepitate the fracture under the fingers of the physician". Superficial wounds were treated similarly with bandages of alum, honey and oil. Severe injuries with exposed bone through skin and muscle were described as hopeless regardless of treatment.

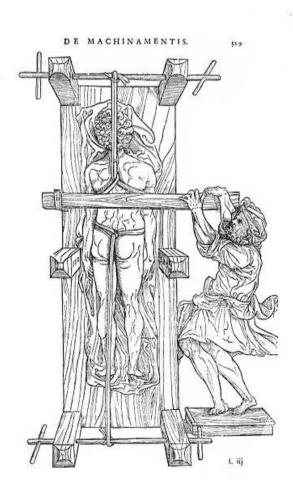
Archaeologists have found several skeletal remains with healed fractures dating from Ancient Egyptian times which stand as evidence to the success of orthopaedic management in antiquity. There is also evidence of splints and bandages found on mummies illustrating the technique as mentioned on the Edwin Smith Papyrus, which suggests that the people of the day learnt from prior experiences and current literature and may well be the first evidence we have of Orthopaedic CMEs!

Greco-Romans

This article would not be complete without a mention of Hippocrates (460-370 BC). The Hippocratic method of shoulder relocation following dislocation is still taught in modern medical schools and stands testament of its legacy where traction is applied with the foot in the axilla providing counter-traction. He is also recognised for describing a method for reducing humeral fractures where the patient is seated with a rod in the axilla, having had traction applied to the arm in the form of weights. The physician reduces the fracture manually and immobilises with the use of bandages. Of note, the bandages are either soaked in oil, resin, wax or cerate to provide stiffness. It mentions that the bandages should be changed regularly to make it tighter which attests to the Greeks' understanding of soft tissue inflammation. Testament of the success of the Hippocratic school of thought manifests itself through the writings of following physicians namely Galen (129-215 AD) and Celsus (25 BC – 50 AD).

Celsus (25 BC – 50 AD) was a Roman and is credited for his compilation known as "De Medicina" which comprises articles ranging from medicine, philosophy, law and military tactics. He is known for his anatomical description of fractures (proximal, shaft, distal) and their respective treatment and prognosis. His contributions include descriptions of the type of bandages and how the use of different techniques in their application would suit various types of injuries (e.g. using longer bandages for the proximal humerus as compared to distal/shaft fractures). He differs from Hippocrates in that his bandages were soaked with wine and oil as opposed to cerate.

Another person of note is Oribasius (325-397 AD) who is credited for the compilation of medical writings and books thought to have been, at one time, at the great library of Alexandria. Among his many accounts includes a description of reducing the shoulder joint in fracture-dislocations of the humerus prior to setting the fracture. Oribasius recommended the Hipprocratic bench "scamnum" for the treatment of such fractures.



Hippocratic scamnum

Summary

It is important to appreciate that Orthopaedics is an everexpanding field with new discoveries, knowledge and techniques being discovered and improved with time. Ancient methods have been refined throughout the generations and this has enabled us to improve our management of open fractures, complex dislocations and establish the field of arthroplasty. This brief article only mentions but a few contributions from earlier times. Other civilisations, past and present, have had their share of knowledge pooled including the medieval Arabs, ancient practices from India and China, and the centuries following the dark ages in Europe. We have but a scattering of written accounts about fracture management from times past, but stand grateful as these have been the foundation of our modern day orthopaedic practice.

References

- Breasted JH. The Edwin Smith Surgical Papyrus: Published in Facsimile and Hieroglyphic Transliteration with Translation and Commentary in Two Volumes. Chicago, IL: The University of Chicago Press; 1930
- Lawrence G. Surgery (traditional). In Bynum WF, Porter R, eds. Companion Encyclopedia of the History of Medicine. London, UK: Routledge; 1993:961
- Brorson S. Management of fractures of the humerus in Ancient Egypt, Greece, and Rome: an historical review. Clin Orthop Relat Res. 2009 Jul

The role for arthroscopic partial meniscectomy in knees with degenerative changes: a systematic review

Lamplot JD, Brophy RH.

Bone Joint J. 2016 Jul:98-B(7):934-8. doi: 10.1302/0301-620X.98B7.37410.

Comment by Ahmed Abdel Azeem

SICOT Newsletter Editorial Board Member – Cairo, Egypt

Abstract

AIMS: Patients with osteoarthritis (OA) of the knee commonly have degenerative meniscal tears. Arthroscopic meniscectomy is frequently performed, although the benefits are debatable. Recent studies have concluded that there is no role for arthroscopic washout in osteoarthritis of the knee. Our aim was to perform a systematic review to assess the evidence for the efficacy of arthroscopic meniscectomy in patients with meniscal tears and degenerative changes in the knee.

PATIENTS AND METHODS: A literature search was performed, using the PubMed/MEDLINE database, for relevant articles published between 1975 and 2015. A total of six studies, including five randomised controlled trials and one cross-sectional study of a prospective cohort, met the inclusion criteria. Relevant information including study design, operations, the characteristics of the patients, outcomes, adverse events and further operations were extracted.

RESULTS: The degree of osteoarthritis in the patients who were included and the rate of cross over from one form of treatment to another varied in the studies. Two randomised controlled trials showed a benefit of arthroscopic surgery in patients with limited degenerative joint disease, compared with conservative treatment. One cross-sectional study showed that patients with less severe degenerative changes had better outcomes.

CONCLUSION: Patients with symptomatic meniscal tears and degenerative changes in the knee can benefit from arthroscopic meniscectomy, particularly if the osteoarthritis is mild. A trial of conservative management may be effective and should be considered, especially in patients with moderate osteoarthritis.

'Degenerative tear in the posterior horn of the medial meniscus associated with Knee OA' is a statement that we frequently encounter and we always ask ourselves: should we operate on this type of tear or not?

Searching for an evidence-based answer is what attracted me to read this article. The authors reviewed the literature available over the last 40 years going through all the articles published in English and assessing the results of either arthroscopic partial meniscectomy or conservative management of meniscal degenerative tears in mild to moderate osteoarthritic knees. Using the strict inclusion criteria of randomised control trials and prospective cohort studies published in peer-reviewed journals with a minimum of level II evidence, they were able to select only six studies. The Cochrane Collaboration's tool for assessing risk of bias in randomised trials was used to assess the quality of the papers included. Allocation was adequately concealed in five studies. However, patients and outcome assessors were only blinded in one study. A total of four of the six studies clearly explained sample size calculations.

Despite failing to perform a 'meaningful' meta-analysis due to the heterogeneity of the primary outcomes and the differences in patient populations in the selected six articles, they were able to reach a reasonable answer. They concluded that partial meniscectomy will be of benefit only if the symptomatic degenerative meniscal tear is present in association with mild osteoarthritis. Moreover, because most patients undergoing conservative treatments within the included studies had clinically significant improvements, physical and medical forms of treatment should be used for most patients prior to operative intervention, particularly in those with moderate OA.

Ridvan Ege 1925-2017



introduced Turkish colleagues to biannual congresses, which was a new concept for most at the time.

Born in 1925, Prof Ege graduated in 1948 from Istanbul University Medical School. After training as a general surgeon, he attended

educating competent surgeons.

Columbia University between 1955 and 1959, where he trained to become an orthopaedic surgeon. Upon returning home in 1961, he formed the first Orthopaedics and Traumatology Clinic in Turkey, a specialty which had been previously practised by general surgeons. In the decades to come, he devoted his life to orthopaedics, taking part in the establishment of new clinics, heading his department, and taking on further administrative duties at the Ankara University Medical School as Dean. In 1999, he founded Ufuk University in Ankara, and worked proudly to ensure its status as a prestigious university.

Prof Ege also founded the Turkish Society of Orthopaedics and Traumatology and presided it for many years. He **Participating** international in associations was of utmost importance to him, and he urged colleagues to join them. He attributed special importance to SICOT and for many years he was an active member. He was a friend to many members and executives of

SICOT. He worked in various SICOT committees and presided the 23rd SICOT Triennial World Congress in 2005 in Istanbul, Turkey.

Prof Ege actively worked until the last months of his life. His beloved wife, Prof Binnaz Ege, passed away in 2013. He is survived by his daughter, Prof Ufuk Ege Uygur, and three grandchildren: Ege, Berk and Naz.

Prof Ege will be dearly missed and remembered with gratitude by the Turkish Orthopaedic Surgeons and by the SICOT family.

Written by Erdal Cila – Former SICOT National Delegate of Turkey



The International Council Meeting at the 23rd SICOT Triennial World Congress in 2005 in Istanbul, Turkev

Bezmialem Vakif University/SICOT Fellowship Report

Saheed YakubSICOT Active Member – Ilorin, Nigeria

I had my SICOT fellowship at the Department of Orthopaedics and Trauma of Bezmialem Vakif University Hospital in Istanbul, Turkey. It was indeed a wonderful experience that will continue to linger in my memory. Being awarded the fellowship was a dream come true after six years of persistent application for a SICOT fellowship. I was therefore very elated when I received the congratulatory message from Dr Fatih Kucukdurmaz informing me of my selection for the newly announced Bezmialem Vakif University/SICOT Fellowship. This made me one of the first beneficiaries of the fellowship.



Bezmialem Vakif University Hospital

I immediately began the necessary preparation for the programme which was to be held from 19 September to 18 December 2016. After some initial delays occasioned by the need for proper documentation and registration by the university, I finally received the official invitation for the fellowship programme, with which I obtained the entry visa to Turkey. I then arrived in Istanbul on 25 September 2016 to commence the programme.

Initially, I had some trouble trying to secure accommodation. I was eventually assisted by the international office of the university and secured one through a private arrangement after first staying at a

hotel. I was warmly welcomed to the department by Dr Fatih Kucukdurmaz, who then introduced me to other departmental staff. I was very well received by all hospital staff members, in particular theatre staff. Each one of them was willing to offer me any needed assistance. The warm hospitality I experienced within the hospital virtually erased all thoughts of my initial trouble when I first arrived in Istanbul.



With Dr Fatih Kucukdurmaz after a departmental presentation

The Hospital subspecialises mainly in arthroplasty and joint preserving surgeries of the hip and knee. A typical day begins with an early morning clinical meeting where the cases of the previous day and the schedule of cases for that day were reviewed. This offers opportunities for discussion around the cases. From there we proceeded to the operating room. I was allowed to scrub in right from my first day in the operating room. I was able to assist in all ranges of procedures from primary hip and knee arthroplasties to revision surgeries, and tried my hands on a few. I also assisted many cases of unicondylar knee arthroplasties and had exposure to the use of mobile inserts. Dr Kucukdurmaz was ever willing to explain necessary points and provided answers to my queries. I enjoyed working with Prof Ibrahim Tuncay and learnt greatly from his distinct way of performing the procedures. He frequently asked questions to set the tone for clinical teachings which were all very educational. Working with Dr Fatih Yildiz was a distinct experience that I will forever cherish.

I also took part in other surgeries such as shoulder arthroplasty and arthroscopy. I am particularly thrilled with the zeal and expertise of Dr Kerem Bilsel. His enthusiasm to teach and offer assistance readily is second to none. Working with him demystified shoulder pathologies and made shoulder arthroscopy in particular look rather simple. I witnessed and scrubbed in for cases ranging from rotator cuff repair, Bankart repair, biceps tenodesis, Latarjet procedures to reverse shoulder arthroplasty.

Other surgeries I took active part in included knee arthroscopy, ACL reconstruction, tumour surgery, paediatric cases and some spine surgeries. I remain grateful to all consultants and resident doctors in the department and all the operating room staff for their very cordial relationship.



With Prof Ibrahim Tuncay in the OR

During the course of the programme, apart from the involvement in clinical activities, I also took part in two major orthopaedic meetings. The first was a two-day fully packed programme on knee surgeries (high tibial osteotomy, unicondylar knee replacement, and total knee arthroplasty) and shoulder arthroplasty (reverse shoulder arthroplasty). It included live surgery sessions and a practical hands-on workshop. I was also registered for the 13th Turkish Sports Traumatology, Arthroscopy and Knee Surgery Congress which was held on 22-26 November 2016. It featured several top-rated presentations from orthopaedic experts across the globe. It was indeed a highly educational congress that I benefitted very much from.

This fellowship also offered me the opportunity to work with Dr Kucukdurmaz in an area of special interest to him which is orthopaedic infections, particularly Periprosthetic Joint Infections (PJI). We were able to produce the draft of an article which hopefully will be available for publication. I also had insights into other areas of research interest. This has opened a strong channel of continuous collaboration.

On the social front, Istanbul is a great city despite its population of over 14 million. I enjoyed the well-organised transport system and visited interesting places such as the Blue Mosque, Hagia Sophia, Topkapi Palace, Galata Tower, among others. They are all wonderful sites to behold. I equally enjoyed the regular lunch provided by the hospital.

I wish to express my sincere appreciation to SICOT and Bezmialem Vakif University for this fellowship. It has indeed opened a new chapter in my professional life. I am also indebted to all staff members of the orthopaedics department, starting with the HOD, Prof Nurzat Elmali, Prof Ibrahim Tuncay, Dr Kerem Bilsel, Dr Fatih Kucukdurmaz, and a host of others.

38th SICOT Orthopaedic World Congress



Plenary Speakers



Oheneba Boachie-Adjei

Medical Mission Hall of Fame. Earlier this year, he was granted the award for the Individual Philanthropist of the Year (Special Needs) by the Philanthropy Forum Ghana.

Prof Boachie-Adjei has published and lectured extensively on spine surgery, with special emphasis on surgery to correct spine deformity. He is an inventor who holds several patents for devices used in spine surgery.

Oheneba Boachie-Adjei is the President and Founder of the Foundation of Orthopedics and Complex Spine (FOCOS) and the CEO of FOCOS Hospital, Ghana. He is also an Emeritus Professor of Orthopaedic Surgery at Weill Cornell Medical College and Chief of the Scoliosis Service at the Hospital for Special Surgery (HSS).

He completed undergraduate studies at Brooklyn College where he received a Bachelor of Science (*summa cum laude*) in 1976. He received his Doctor of Medicine Degree from Columbia University's College of Physicians and Surgeons in 1980, completed an orthopaedic residency at HSS in 1986 and spine deformity fellowship at the Twin Cities Scoliosis Center, Minnesota.

He received the Scoliosis Research Society (SRS) Russell Hibbs Award for Best Clinical Research Paper in 1989, 2002 and 2013. He then received the Humanitarian Award in 2004 by the American Academy of Orthopaedic Surgeons (AAOS) and the Walter P. Blount Service Award in 2006 by the SRS. He was President of the Scoliosis Research Society for 2008-2009. In June 2013, he received the Lifetime Achievement Award from the Hospital for Special Surgery. He was featured on CNN's African Voices documentary 'Transforming Spine Surgery in Ghana'. In 2016, the University of Toledo, Ohio inducted him into their Global



Fares Haddad

Fares Haddad is Professor of Orthopaedic and Sports Surgery and Divisional Clinical Director of Surgical Specialties at University College London Hospitals (UCLH) and Director of the Institute of Sport, Exercise and Health (ISEH) at University College London. He is also Editor in Chief of the 'Bone and Joint Journal' (formerly JBJS-Br).

Prof Haddad's clinical and research endeavours have centred around hip and knee reconstruction. His interests include joint preservation after trauma and sports injuries, bearing surfaces, implant fixation, periprosthetic infection and outcomes assessment in hip, knee and revision surgery. His broader work also encompasses strategies to preserve and regain musculoskeletal health; he led the musculoskeletal team at the London Olympics 2012, was instrumental in setting up the National Centre for Sport &

Exercise Medicine and has recently been awarded International Olympic Committee Centre of Excellence status at ISEH.

He was the gold medallist in the FRCS (Orth) exam and has gained a large number of prizes and prestigious academic awards. He has been an EFORT Travelling Fellow, British Hip Society Travelling Fellow and ABC Travelling Fellow in 2004. He was a Hunterian Professor in 2005. He is a member of the Hip Society, the Knee Society, and of the International Hip Society.

He has presented and published widely on key aspects of hip, knee and sports surgery including over 300 peer-reviewed publications. He leads a clinical research group with interests in joint preservation after injury, the genetic influences on bone and tendon disease, prosthetic design and performance and outcomes measurement after hip/knee injury, degeneration and surgery. He is Editor in Chief of the 'Bone and Joint Journal', and is on the editorial board of 'The Journal of Arthroplasty', 'Annals of the Royal College of Surgeons' and 'Hospital Medicine'.



Ashok N. Johari

Ashok N. Johari is a Paediatric Orthopaedic and Spine surgeon based in Mumbai, India.

After a brilliant postgraduate career in orthopaedics, Dr Johari started specialising in paediatric orthopaedics in the

early 1980s. He had further exposure in this field in Japan, England, France, United States, and the then USSR. Eventually he spearheaded the development of this specialty in India with a leadership position in organising the Paediatric Orthopaedic Society of India (POSI) in 1994 as its Founder Secretary. This Society has flowered and has interested many in pursuing paediatric orthopaedics as a career.

Dr Johari was the President of the Paediatric Orthopaedic Society of India (POSI). He has also been President of the Indian Orthopaedic Association (IOA), the Indian Academy of Cerebral Palsy (IACP), and the Asia Pacific Knee Society (APKS). He is currently the Vice President and on the Board of Directors of SICOT and is also the Chairman of its Education Council. Dr Johari was the President of the very first SICOT Orthopaedic World Congress held in India in October 2013. He is the President Elect of the Asia Pacific Paediatric Orthopaedic Society (APPOS) and of the Asia Pacific Infection Society (APIS).

He has a number of distinctions, fellowships, awards, papers and publications to his credit including many book chapters. He is Chief Editor for the book series on 'Current Progress in Orthopaedics', Editor in Chief of the prestigious 'Journal of Paediatric Orthopaedics (B)' for over a decade now, and on the Editorial and Reviewer Boards of many other international journals. Dr Johari was awarded the FRCS from the London College and also honoured as a Fellow of the prestigious National Academy of Medical Sciences and as a Hon. Fellow of the Slovak Orthopaedic and Trauma Society.

More information about the scientific programme can be found at: www.sicot.org/cape-town-scientific-programme

38th SICOT Orthopaedic World Congress



24th Cooperative Course for Polytrauma Management

Date & Time

29 November 2017 - 08:30-17:00

Venue

Cape Town International Convention Centre (CTICC)

Fee

EUR 50 – Participants must register and pay the registration fee for the 38th SICOT Orthopaedic World Congress to be able to register for the 24th Cooperative Course for Polytrauma Management. If you have already registered for the Congress and wish to attend the Course, please send an email to congress@sicot.org.



The idea of this course was initiated by Drs Giannoudis and Pape in 2002 with the first course being held in 2002 in Leeds, United Kingdom. Since then, it has circulated and part of it has also been implemented in the philosophy of the AO.

The organisers feel that the widespread implementation of the ATLS algorithm has tremendously improved the acute treatment of severely injured patients. Following the initial resuscitation phase, controversies and ongoing changes have occurred that are worth reviewing. Therefore, these courses address the issues "Beyond ATLS".

In cooperation with University Hospital Zurich (Prof Pape), Hannover Medical School (Prof Krettek), University Hospitals in Leeds (Prof Giannoudis) and Pittsburgh University Medical Center (Prof Peitzman), we intend to unite the knowledge of general surgeons, neurosurgeons, orthopaedic trauma surgeons, intensive care and emergency physicians.

There will be international experts in traumatology sharing their experiences during the course. It will be conducted in English and all participants will receive a certificate.

By partnering with SICOT the registration fee for this year's course has been reduced to EUR 50.

We hope that you will enrich this course with your participation and indefatigable intention to improve trauma care.

Chairmen:

Hans-Christoph Pape (Switzerland) Peter Giannoudis (United Kingdom) Andrew Peitzman (United States)



For more information, please visit www.sicot.org/cape-town-polytrauma-course

Editorial Department

Editorial Secretary: Hatem Said

Associate Editors: Syah Bahari & Mohamed Sukeik

Editorial Production: Linda Ridefjord

Editorial Board: Ahmed Abdel Azeem, Bassel El-Osta, Pavel Volotovski

SICOT aisbl, Rue de la Loi 26 – b.13, 1040 Brussels, Belgium Tel.: +32 2 648 68 23 | E-mail: edsecr@sicot.org | Website: www.sicot.org

