Malaysian Arthroscopy Society Newsletter

SCOPE Insight

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Message from the Chief Editor

Dear MAS members,

Welcome back to **Scope Insight**! We are excited to bring you the latest articles and news in this edition. Despite the busy year, we hope you find time to enjoy the engaging content we've gathered.

2024 has been an eventful year, marked by major sporting events like the Paris 2024 Summer Olympics, the ASEAN University Games, and SUKMA Sarawak. These events remind us of the importance of staying active and safe while participating in sports. Dr. Robin Low's article on tennis elbow offers insightful ways to modernize its treatment, which we encourage you to explore.

In addition to the athletic achievements, MAS has been hard at work organizing workshops for professional development. You'll find reports on key events such as the 5th Borneo Arthroscopy Course, the 22nd ACL Reconstruction Course and the 1st NOCERAL Advanced Knee Cadaveric Workshop.

For those interested in upper extremity injuries, Associate Professor Dr. Raymond Yeak Dieu Kiat has written an informative piece on traumatic anterior shoulder instability. We also supported members attending the 21st ESSKA Congress in Milan and SICOT 2023 in Egypt. We encourage you to read their experiences in the following sections.

Finally, we round off with an intriguing article on barefoot running by Dr. Sharifah Amirah, offering fresh insights into this trending topic.

Before you dive into these great articles, a quick reminder about our upcoming 11th MAS Annual Scientific Meeting this November, where we will once again host the popular Postgraduate Quiz Championship, along with other awards. We look forward to your participation.

Enjoy this issue and see you soon in Johor Bahru!

Warm regards,
Assoc. Prof. Dr. Teo Seow Hui
Chief Editor, MAS Newsletter (2023-2025)
MAS Secretary (2023-2025)
Universiti Malaya

SECOND ANNOUNCEMENT

11th Malaysian Arthroscopy Society Annual Scientific Meeting 2024

RE-HINGING THE KNEE

Optimizing Care in Knee Surgery and Rehabilitation

6th ▼ 9th | November 2024

Renaissance Johor Bahru

PRE-CONGRESS WORKSHOPS

6th Nov 2024

- Cadaveric Workshop
- Ultrasound-Guided Workshop

MAIN CONGRESS

7th ~ 9th Nov 2024

- Annual Scientific Meeting

For more updates, please visit our official website at **masasm.org**

Modernizing Tennis Elbow Treatment: From Historical Perspectives to Cutting-Edge Therapies

By Dr Low Chin Aun
MAS Editorial Member

The name "Tennis Elbow" originated in 1882, when Henry Morris referred to it as 'Lawn Tennis Arm' in the Lancet. Tennis elbow, or lateral epicondylitis, has long been a staple in the repertoire of sports-related injuries, not only affecting athletes but also workers and individuals engaged in repetitive arm movements. Despite being recognized for over a century, evolving understanding of its pathophysiology and the introduction of innovative treatments have transformed its management, offering renewed hope for patients. This article delves into the latest research, emerging therapies, and the future of managing tennis elbow in sports orthopaedics.

Understanding Tennis Elbow: Beyond Tendonitis

Historically, tennis elbow was classified as a form of tendonitis which is an inflammation of the extensor carpi radialis brevis (ECRB) tendon at its insertion on the lateral epicondyle. However, recent studies have shifted this understanding, suggesting that tennis elbow is more accurately described as a tendinosis or tendinopathy which is a degenerative condition characterized by the breakdown of collagen and micro-tears within the tendon. Nirschl and Pettrone concluded that this process is degenerative in nature, given the absence of acute inflammatory cells, and likely represents a failed reparative process.[1]

Modern Diagnostics: Precision in Identifying Pathology

The accurate diagnosis of tennis elbow has always been a challenge, given the overlapping symptoms with other conditions such as radial tunnel syndrome or cervical radiculopathy. Advances in imaging technology, including high-resolution ultrasound and MRI, have enhanced our ability to pinpoint the exact pathology. Ultrasound has become a critical tool, allowing clinicians to assess tendon thickness, vascularity, and the presence of hypoechoic areas indicative of degenerative changes.

Treatment Innovations: From Biologics to Arthroscopy

The first line management for the treatment of tennis elbow often includes rest from offending activity, physiotherapy, anti-inflammatory and brace. A forearm counterforce brace applies compression over the common extensor muscle mass, reducing muscle expansion and contraction. This, in turn,

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Figure 1: Extensor carpi radialis brevis (ECRB) tendon is often involved in tennis elbow. (Source)

Figure 2: Coronal T2 weighted image showing presence of degenerative tissue and tears within the tendon and underlying capsule.

decreases tension in the extensor carpi radialis brevis (ECRB), thereby reducing pain and enabling the patient to exert force more effectively. The pressure from the brace acts as a more distal origin of the muscle which aids in unloading the true origin at the lateral epicondyle.[2] Newer treatments are now readily available, offering advanced and targeted therapeutic option which will be discussed below.

Extracorporeal Shock Wave Therapy (ESWT)

The mechanical stimulus provided by shock waves is thought to stimulate tissue healing, reduce calcification, inhibit pain receptors, and cause denervation. Randomized controlled trials have shown ESWT to be effective in reducing pain and improving grip strength in patients with chronic tennis elbow, particularly when other conservative measures have failed.

Steroid Injection

A systematic review of 41 trials and a more recent meta-analysis of 10 trials both concluded that corticosteroid injections do not provide long-term benefits compared to placebo or no treatment for managing lateral epicondylitis.[3] Evidence suggests that beyond 26 weeks, patients who received corticosteroid injections experienced more severe symptoms than those who underwent no treatment or physical therapy. These results align with in vitro studies, which indicate that corticosteroids may have harmful effects by inhibiting tenocyte proliferation, tenocyte activity, and collagen synthesis.

Platelet-Rich Plasma (PRP) Injection

PRP therapy has garnered significant attention in recent years as a biological approach to treating tennis elbow. By concentrating the patient's own platelets and injecting them into the affected tendon, PRP aims to promote healing through the release of growth factors. Multiple studies have shown promising results, with patients reporting reduced pain and improved function compared to corticosteroids or placebo.

However, it's important to note that PRP therapy is not without controversy. The variability in preparation methods and injection protocols has led to mixed results in clinical trials. Nevertheless, ongoing research is working towards standardizing PRP treatment, with the goal of making it a reliable option for patients with recalcitrant tennis elbow.

Surgical Procedures

For patients who fail to respond to conservative treatments, surgical intervention may be necessary. While open surgery has traditionally been the gold standard, minimally invasive techniques are increasingly favoured. These procedures do not differ in the concept that the main site of pathological changes is the ECRB origin.

1 Open ECRB release

In 1979, Nischl detailed a surgical approach that involves release and resection of abnormal granulation tissue associated with ECRB followed by decortication and the drilling of multiple holes at the lateral epicondyle without reattachment of the extensor origin *(Figure 3)*.

2 Arthroscopic ECRB release

Arthroscopic release of the ECRB tendon allows for direct visualization and treatment of

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Figure 3: Surgical procedure for lateral epicondylitis. (Source: Lee S, Hong IT, Lee S, Kim TS, Jung K, Han SH. Long-term outcomes of the modified Nirschl technique for lateral Epicondylitis: a retrospective study. BMC Musculoskelet Disord. 2021 Feb 19;22(1):205.)

the pathology with minimal soft tissue disruption, leading to faster recovery times. When performing an open procedure for lateral epicondylitis, the muscular portion of the ECRL must be exposed to visualize the tendinous ECRB. The arthroscopic approach offers an advantage in debriding the ECRB without insulting the integrity of the ECRL. Moreover, the arthroscopic approach may facilitate the evaluation of intra-articular pathology and elbow instability, which may coexist.[4]

Initially, approximately 15 – 25mL of saline is injected through the soft spot, which is identified by palpation on the lateral aspect of the elbow. Diagnostic arthroscopy is then carried out, utilizing the proximal anteromedial portal as the primary viewing portal and the proximal lateral portal for working access. If present, anterior synovitis is resected, and the lateral capsule is carefully evaluated. The lateral capsule is dissected to allow visualization of the tendinous portion of the ECRB, using a shaver. The ECRB is resected until the muscular portion of the ECRL is exposed. The arthroscope is subsequently repositioned to the posterior site to inspect and resect any synovial plica. Throughout the procedure, special attention

Extensor carpi radialis brevis (ECRB) release procedure. **(A)** Capsular release using a direct anterolateral portal. **(B)** Extended release of proximal attachment of the capsule. **(C)** The whitish tissue is the ECRB tendon. **(D)** Release of the ECRB tendon with preservation of the ECRL tendon (muscular region). *(Source)*

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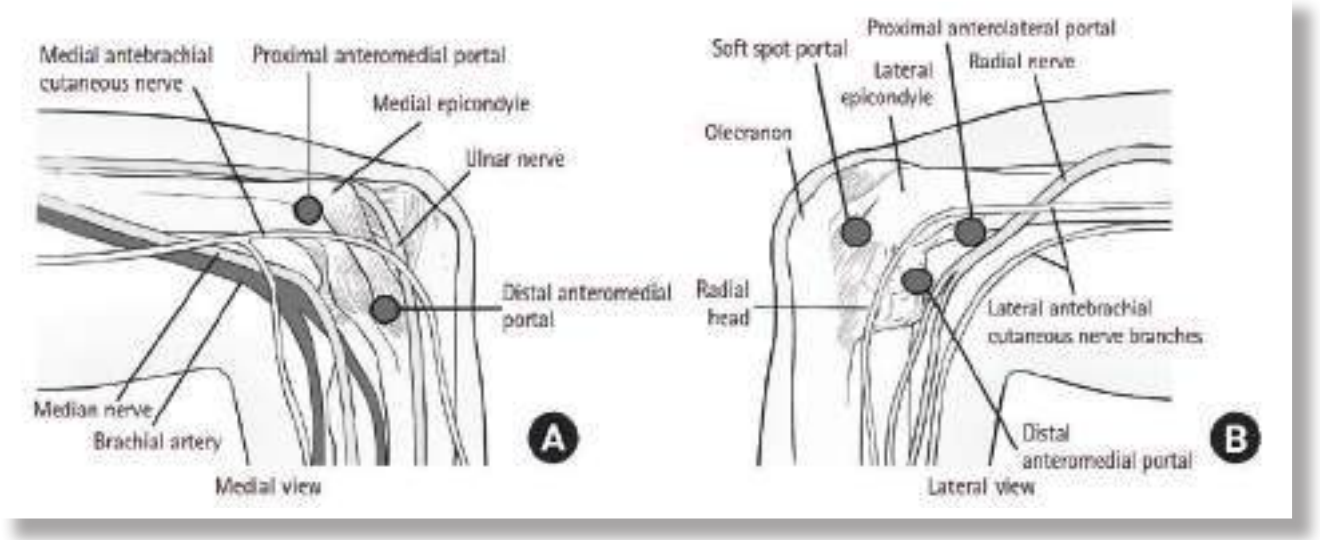

Figure 4: Portals utilized in elbow arthroscopy.

is required to avoid damaging the lateral collateral ligament complex, as its position anterior to the radial head equator makes it crucial in preventing posterolateral rotatory instability.

The paper discussed above was authored by Professor Jeon In-ho and his esteemed team from Asan Medical Center in Seoul, Korea. Prof. Jeon, who currently serves as the President of the SICOT Shoulder Elbow Committee and is the President-elect of the APOA Hand & Upper Extremity Society, has made significant contributions to the field of shoulder and elbow surgery. I had the exceptional opportunity to complete a shoulder and elbow fellowship under his guidance at Asan Medical Center. This experience allowed me to assist in his arthroscopic surgeries for tennis elbow, providing me with valuable insights into elbow arthroscopy.

Percutaneous Extensor Release

Percutaneous needle tenotomy, commonly performed with ultrasound guidance, is another increasingly popular minimally invasive treatment for chronic lateral epicondylitis. Also referred to as 'tendon fenestration' or 'dry needling,' this procedure involves multiple needle passes through the affected tendon. The technique is shown to stimulate tendon healing and remodelling by inducing a controlled acute inflammatory response. Research suggests that this response facilitates the release of local angiogenic factors and promotes the formation of new blood vessels, aiding in the tendon's recovery.[5]

Conclusion

Tennis elbow, though a well-known condition, remains a dynamic field within sports orthopaedics. The shift from viewing it as an inflammatory condition to understanding it as a degenerative tendinopathy has opened the door to a wide range of innovative treatments. As research continues to advance, clinicians are increasingly equipped to provide more effective, individualized care, ultimately improving outcomes for patients affected by this challenging condition.

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5th Borneo Arthroscopic Course Report

By Dr Leong Wan Hee

The Borneo Arthroscopic Course or BAC is into its 5th edition this year and had just concluded successfully. In this edition, it was held on the 19th & 20th of August 2024 at the Borneo Cultures Museum and Sarawak General Hospital respectively. We had a total of 44 participants consisting of 10 surgeons, 14 medical officers and 20 paramedics (nurses and physiotherapists). Most participants were from Sarawak and Sabah with a few coming from west Malaysia. There were 4 invited speakers (Mr Zulkifli B Hassan from HSAI, Prof Teo Seow Hui from UMMC, Mr Hafiz B Daud from HKL and Dr Emie Isma Bt Ismail from HKL) and 2 local speakers (Mr Leong Wan Hee and Dr Yau May Yann)

The 1st day of the course was a combination of lectures and dry workshop which involved all the participants. This was held at the activity room of Borneo Cultures Museum. The participants attended lectures in the morning and in the afternoon session, were guided through the workshop by the invited speakers. There were 3 stations for the hands-on workshop (graft preparation, meniscus repair and saw bone ACL reconstruction) for each participant to practice on.

The 2nd day was the live surgery that involved both the surgeons and medical officers. 3 cases were scheduled for that day with ACL and meniscus injuries. The participants were divided into groups to scrub up alongside the speakers to assist as well as practice what was learnt the day before. Concurrently, the paramedic group were having a hands-on approach to pre and post op rehabilitation of patient as well as introduction to the braces used for patients.

The objective of the Borneo Arthroscopic Course has always been to introduce the knowledge

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Mr Hafiz at the meniscus station

Participants at the saw bone station

Live surgery with Prof Teo and Mr Zul

Participants learning about knee brace

and practice of arthroscopy to the medical practitioners of East Malaysia. This was achieved with the numbers of participants exceeding our expectations by almost 50%. We would hope to continue this course with future editions being jointly held between the states of Sabah and Sarawak. In future editions we have plans to invite participants from Brunei and Kalimantan, Indonesia and make it a truly Bornean event.

22nd ACL Reconstruction Course 2024

By Colonel (Dr) Mohammed Munir bin Osman

The Department of Orthopaedics at 96 Hospital Angkatan Tentera (HAT), in collaboration with the Malaysian Arthroscopy Society (MAS), successfully organized the 22nd Arthroscopic ACL Reconstruction Course from August 4 to 6, 2024. This annual course, held since 2001, received an enthusiastic response from aspiring orthopedic surgeons eager to learn the art of ACL reconstruction surgery. The course was officiated on August 5, 2024, by the acting Commanding Officer, Brig Gen (Dr) Syed Edi Sazaly bin Syed Haidzir.

The objective of the course was to provide participants with exposure to and the correct surgical techniques for performing ACL surgery. This unique program consisted of three components: lecture sessions, pre-operative rounds, and live surgery. During the live surgery session, participants had the opportunity to assist in performing the procedures alongside the speakers.

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Prominent speakers in the field of ACL surgery were invited, including Mej Jen Dato' Dr. Muhammad Amirrudin bin Hamdan (Rtd), Brig Jen Dato' Pahlawan (Dr) Musa bin Kasmin, Head of Armed Forces Orthopaedic Services, and Kol Dr. Kok Choong Seng (Rtd), Vice President of MAS. The course hosted eight orthopedic surgeons from across the country who were interested in sports surgery.

Six cases of ACL surgery were successfully performed, allowing participants to witness various techniques demonstrated by the speakers. The course provided a valuable platform for experience exchange among the speakers, and the small number of participants facilitated effective discussions and hands-on surgical engagement.

Due to the positive feedback received each year, the Department of Orthopaedics at 96 HAT is committed to continuing this course in the future to train new orthopedic surgeons, particularly in ACL surgery.

1st NOCERAL Advanced Knee Cadaveric Workshop

By Dr Chuan Yin Xin
National Orthopaedic Center of Excellence for Research and Learning (NOCERAL), Department of Orthopaedic Surgery, Faculty of Medicine, Universiti Malaya

The 1st NOCERAL Advanced Knee Cadaveric Workshop was successfully conducted on the 11th and 12th of August 2024. The workshop was endorsed by MAS with the aimed to enhance the participants' understanding of advanced knee arthroscopy and surgical techniques, with a particular focus on meniscus ramp and root repair, posterior cruciate ligament (PCL), posterolateral corner (PLC), medial collateral ligament (MCL) reconstruction, and lateral extra-articular tenodesis (LET). This intensive one-and-a-half-day workshop provided an invaluable opportunity for participants to learn directly from esteemed speakers and trainers.

The primary objectives of the workshop were to provide in-depth knowledge of knee arthroscopic techniques and hands-on experience

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in managing complex knee injuries. A total of 12 orthopaedic surgeons, practising across Malaysia, Thailand, and Indonesia, participated in this workshop. The diverse backgrounds and experiences of the participants contributed to the collaborative and enriching nature of the event.

Leading the workshop were five highly distinguished faculty members, including Associate Professor Dr. Chanakarn Phornphutkul, Associate Professor Dr. Teo Seow Hui, Associate Professor Dr. Mohamed Zubair Mohamed Al-Fayyadh, Dr. Siti Hawa Tahir, and Dr. Sazali Salleh. Each faculty member brought their extensive expertise in knee arthroscopy and played a critical role in demonstrating and mentoring participants through the various surgical techniques. The hands-on nature of the workshop allowed participants to engage in cadaveric knee procedures under the close supervision of these experienced trainers. This combination of video demonstrations, presentations, and practical cadaveric work provided a well-rounded educational experience.

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The first day of the workshop was hosted at Out of Africa Restaurant and Kudu Bar, where a series of insightful talks and a sharing session were presented by the faculty. This was followed by a welcoming dinner, which gave participants a chance to interact with one another and engage in informal discussions with the faculty. This social gathering encouraged camaraderie and set the tone for the hands-on sessions that would take place the following day.

On the second day, the workshop took place in NOCERAL, University of Malaya. Faculty members delivered video presentations demonstrating surgical techniques for complex cases before guiding participants through the hands-on session. The participants were divided into small groups, with two surgeons assigned to each group. This small-group setup allowed for personalised instruction and gave each participant the chance to perform procedures with close faculty mentorship.

In addition to the practical sessions, interactive discussions and case presentations were incorporated throughout the day. Participants were encouraged to present clinical cases for group discussion, which fostered an open exchange of ideas and provided a platform for knowledge sharing. These discussions allowed the participants and faculty to engage deeply with each case, sharing their personal practices and expertise.

The feedback from the participants was overwhelmingly positive. They appreciated the opportunity to practise on cadavers and engage closely with the faculty members. The small group sizes enabled meaningful interactions, while the topics covered were relevant and impactful to their practice. Participants also found the faculty's teaching concise and clear, which facilitated their learning experience.

In conclusion, the 1st Noceral Advanced Knee Cadaveric Workshop was a successful and impactful event. It achieved its objectives by providing comprehensive knowledge on knee arthroscopy and hands-on experience for managing complex knee injuries. The positive feedback from the participants reflects the value of such workshops in advancing surgical skills and enhancing medical knowledge. We hope to continue organising similar workshops in the future to support the continuous development of arthroscopic surgery and to provide further opportunities for hands-on learning.

Understanding Bipolar Bone Loss And The On-Track And Off-Track Concept In Shoulder Instability

By Assoc. Prof. Dr Raymond Yeak Dieu Kiat
MAS Editorial Member

Instability is a big and complex topic and encompasses a variety of conditions. It requires a thorough understanding of the anatomy and pathology for us to treat the patient. As instability is a vast topic, I will focus on traumatic anterior shoulder instability (TUBS) according to the Matsen classication or Polar 1 according to the Stanmore classification. It is the anterior instability with structural injury.

When we talk about anterior instability, there is a plethora of treatments available with the advancement of research and the sharing of knowledge in this wireless world that we are currently in. I used to get baffled over the on-track and off-track concept and for us to understand this, we need to understand about glenoid bone loss.

First and foremost, when anterior shoulder dislocation happens, there is 87% to 100% chance of acquiring a Bankart lesion.[1] The prevalence of Hill-Sachs lesion (HSL) is reported to be 65% to 67% after initial dislocation and 84% to 93% after recurrent dislocation.[2,3] Given the high incidence of glenoid bone loss and the significance of it, various research has tried to determine the 'critical' bone loss. Yamamoto et al evaluated the size of a glenoid bony lesion which causes 'critical' glenoid bone loss. They found a critical value of 6 mm of the width of the lesion, which corresponds to 25% of the glenoid width.[4]

Shaha et al. found different values in an in vivo study.[5] They found a high recurrence of dislocation after Bankart repair if the bone loss was more than 20% in an active population.[5] They found that with values between 13.5% and 20%, patients did not sustain recurrent instability but demonstrated poorer WOSI score.[4] This range was named "subcritical" bone loss.[5] Dickens et al utilised the 13.5% value as a cutoff value for reliable Bankart procedure outcome with low recurrence rates in American football players.[6]

In the classic paper by Burkhart and Debeer published in 2000, they introduced the concept of bony deficiency as the contributor to the failure of arthroscopic Bankart repair for anterior glenohumeral instability.[7] This has provoked the orthopaedic community to think in depth about the reasons for the high failure rate when there is significant bone defects.[7] The classic paper described a 67% recurrence rate when there is significant bone loss.[7] Significant bone loss were defined as one in which the arthroscopic appearance of the glenoid was that of an inverted pear.[7]

Burkhart first brought us to the attention of bipolar bone loss and the significance in his landmark paper. This has changed the perspective of all surgeons worldwide. We now know that to restore stability, we cannot just repair the labral tissue, but we need to address the glenoid boss loss as well as the HSL. Studies have found that in HSL with 31% lesion, it cannot be left alone and remplissage alone is not good enough.[8] This will require either bone grafting or a humeral head surface replacement.

To quantify bone boss, various methods can be used. Pre-operatively, the standard radiographs include standard AP and West Point Axillary looking for the loss of the sclerotic line of the anterior glenoid rim. However, the percentage of bone loss is best measured using the ct scan with either the Pico or Sugaya method where the former measures the area of defect divided by the area of best fit circle while the latter measures the bone defect width/ diameter of best fit circle.

In respect to humeral bone loss, AP and notch views can be obtained but these have been shown to have poor sensitivity. CT scan has been proven to be superior and the axial images provide the best means to measure humeral defects. Intra-operatively, Burkhart and Debeer arthroscopically used the bare spot of the glenoid as a consistent reference point.

In considering humeral head defects, the size and engagement with the glenoid remains clinically important as it guides our management. However, the thresholds and methods of measurement are controversial and not precisely determined.

Arciero et al demonstrated that a small and clinically insignificant HSL can lead to 25% reduction of stability when paired with a 2mm glenoid defect.[9] The amplifying effect demonstrates the importance of paying attention to bipolar bone loss.

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This can be further explained by the Burkhart's and Debeer's concept of engaging humeral lesions.[7] This was further explained by Yamamoto when he described the movement of the humeral head on the glenoid track.[4]

Glenoid track is the contact zone of the glenoid with the humeral head and the distance between the medial margin of the glenoid track and the medial margin of the footprint of the rotator cuff. (Fig 1) It is defined as 83% of the glenoid width.[10] A HSL which stays on the glenoid track (on-track lesion) cannot engage the glenoid and cannot cause dislocation where as a HSL which is out of the glenoid track (off-track lesion) has a risk of engagement and dislocation.

Shaha et al found that there were 8% treatment failure for on-track lesions and 75% failure for off-track lesions in arthroscopic shoulder stabilization.[11] Di Giacomo G et al then introduced this formula. Glenoid track = 0.83*D – d. (Fig 2)[12] If glenoid bone loss existed, the distance (d) was subtracted from 83% of the glenoid width, which determined the width of the glenoid track.[12]

If the medial margin of the HSL stays within the glenoid track, there is no risk that this HSL engages with the anterior rim of the glenoid. (Fig 3A) If the medial margin of the HSL is not entirely covered by the glenoid due to a bony defect of the glenoid, then there is risk of engagement and the shoulder is unstable. (Fig 3B) If the HSL extends more medially over the medial margin of the glenoid track, there is a risk of engagement. (Fig 4A and 4B) The former used to be called 'non-engaging HSL' and the latter 'engaging HSL'. Yamamoto et al then introduced the 'on-track HSL' and 'off-track HSL'.[4] If the HSL stays on the glenoid track (on-track lesion), there is no risk of engagement. If the HSL is out of the glenoid track (off-track lesion), there is a risk of engagement and dislocation.

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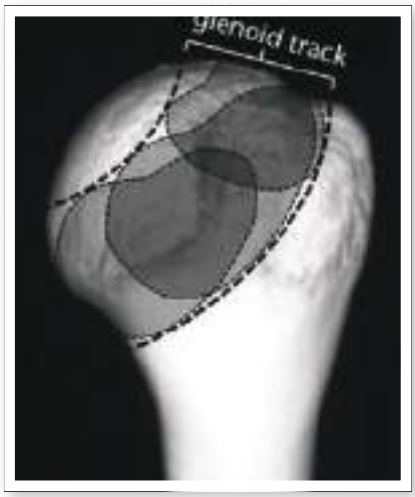

Figure 1: Glenoid track: when the arm is moved along the posterior end-range of movement keeping in maximum external rotation and maximum horizontal extension, the glenoid moves along the posterior articular surface of the humeral head. This contact zone is defined as the 'glenoid track'.

(Itoi E, Yamamoto N. Shoulder instability: treating bone loss. Current Orthopaedic Practice 2012;23:609-615.)

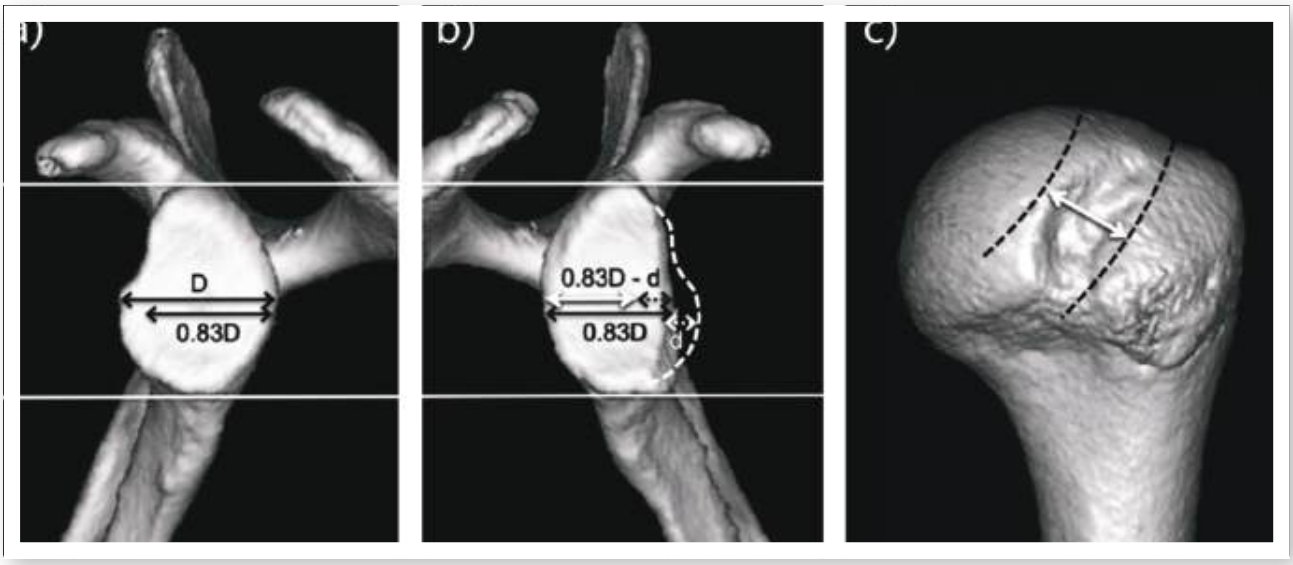

Figure 2: Drawing of the glenoid track: a) on the 'en face' view of the intact glenoid, 83% of the glenoid width is obtained (0.83D); b) on the involved side, there is a defect (d; white dotted double-headed arrow). The width of the glenoid track is obtained by subtracting 'd' (black dotted double-headed arrow) from 83% value (0.83D - d; white double-headed arrow); c) this glenoid track width (0.83D - d) is applied to the posterior view of the humeral head. In this case, the HSL stays in the glenoid track, making this lesion an 'on-track' HSL.

(Itoi E. 'On-Track' and 'off-Track' Shoulder Lesions. EFORT Open Reviews. 2017;2(8):343-51. doi:10.1302/2058-5241.2.170007)

Once we have understood the concept of bipolar bone loss, we can then look at our armentarium of treatment options for the patient. It should be a shared decision-making process which can be either nonoperative or operative treatment. We need to consider the patient's risk profile, activity levels, preference, expectation, and their pathologic anatomy. We also have the Instability severity index score (ISI- score) as well as the Glenoid track Instability Management Score (GTIMS) to guide us. GTIMS integrates the ISI-score with on track/ off track data.

Di Giacomo G et al then proposed the following treatment.[12] For shoulders with on-track HSL and glenoid bone loss of < 25%, only soft-tissue repair is sufficient. With on-track HSL and glenoid bone loss of ≥ 25%, the glenoid bone loss needs to be fixed, for example by the Latarjet procedure. With off-track HSL and the glenoid bone loss of < 25%, remplissage may be a good procedure. However, if the patient is a throwing athlete who requires full range of external rotation or if the patient is a contact/ collision athlete with high risk of recurrence, then the Latarjet procedure is a good procedure because it can convert an off-track lesion to an on-track lesion and also provides extra stability to the shoulder.[13] With off-track HSL and the glenoid bone loss of ≥ 25%, the glenoid defect needs to be fixed. The Latarjet procedure can convert an off-track lesion to an on-track lesion. However, if the HSL is still off-track after the Latarjet procedure, either remplissage or bone graft to the HSL needs to be added to the Latarjet procedure.

Last but not least, instability is a huge and complex subject and while we have made amazing progress in improving our management of patients with instability, further research is still needed to further improve our understanding of the implications of bone loss in the glenohumeral joint.

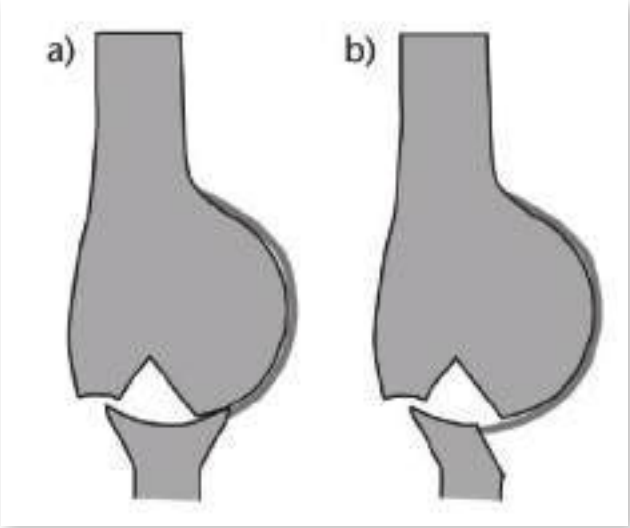

Figure 3: Hill-Sachs lesion (HSL) and the glenoid: a) this HSL is entirely covered by the glenoid at the end-range of movement. Therefore, this is a stable shoulder; b) the HSL is the same size as in (a), but it is not entirely covered by the glenoid due to a bony defect of the glenoid. Thus, this shoulder is unstable. The risk of the HSL engaging or not depends on the relative size of the HSL to the glenoid.

(Itoi E. 'On-Track' and 'off-Track' Shoulder Lesions. EFORT Open Reviews. 2017;2(8):343-51. doi:10.1302/2058-5241.2.170007)

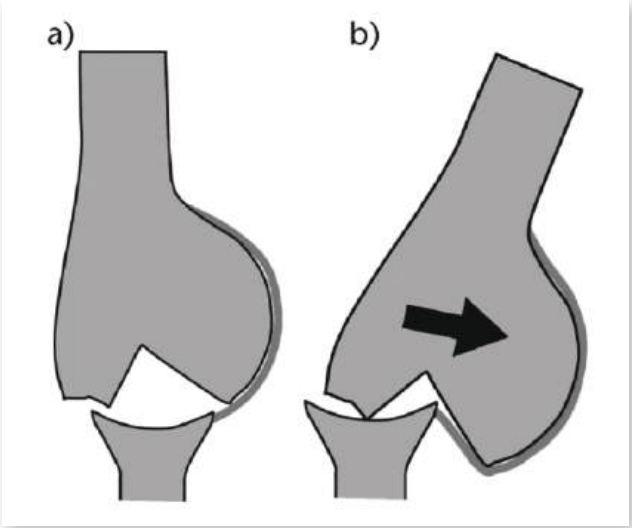

Figure 4: Hill-Sachs lesion (HSL) not entirely covered by the glenoid at the end-range: a) the anterior rim of the glenoid is on the HSL; b) it engages with the HSL and a dislocation occurs.

(Itoi E. 'On-Track' and 'off-Track' Shoulder Lesions. EFORT Open Reviews. 2017;2(8):343-51. doi:10.1302/2058-5241.2.170007)

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Post Conference Report For 43rd SICOT Orthopaedic World Congress

By Datuk Dr. Muhamad Fuad Daud
Hospital Pantai Ayer Keroh

The 43rd SICOT Orthopaedic World Congress was held at Cairo, Egypt in 2023 after a successful event done in Kuala Lumpur the year before.

It is basically a combined meeting between the Egyptian Orthopaedic Association (EOA), which is one of the oldest orthopaedic associations with more than 7,000 active members, and SICOT, which is the largest orthopaedic society in the world with members from 119 countries speaking over 100 languages.

The Congress is held from 21st to 23rd November 2023 at Intercontinental Cairo Citystars Hotel which is about 12 km from Cairo International Airport.

I've departed from KLIA on 20th November 2023 and arrived the same day after Transit at Dubai Airport. From there taxi ride to the venue Hotel takes about 15 minutes' drive from the Airport.

The conference hall is situated below the hotel and consists of 8 Large conference Hall. The opening Ceremony was held on 21st November 2024 with Opening Speech by Prof Gamal Hosny (SICOT Congress President) - Orthopaedics in Ancient Egypt with Dr Hani El-Mowafi (EOA President) and was officiated by His Excellency Dr Mostafa Madbouly (Prime Minister of Egypt).

Congress presentations consists of Scientific Sessions, Plenary Lecture, Free Papers Session and also Networking Event. Topics consists of Trauma, Infections, Arthroplasty, Sports Surgery and also according to regional eg Hand & Micro, Shoulder, Hip, Knee and Spine. There is also other interesting Topics such as Computer & Enabling Technologies and also Academic Writings for those interested to produce good & Quality Papers.

Networking event was held after the conference ended with tour to the National Museum of Egyptian Civilization followed by social dinner was held on 2nd Day – 22nd November 2023 at one of Restaurant beside the Hotel. The main idea is for the participant to mingle and to developed Networking between the participant.

Closing and Award Ceremony was held on the last day at about 1.00pm, 23rd November 2023. Overall, it is a very successful and Informative Conference to be attended. Next SICOT event will be held in Belgrade, Serbia.

Report On ESSKA 2024

By Datuk Dr Mohd Asri Abd Ghapar
Prince Court Medical Center KL

The ESSKA Congress is a Biennial Orthopaedic Sports Medicine Congress organised by the European Society for Sports Traumatology, Knee Surgery and Arthroscopy (ESSKA). ESSKA was found in 1984 by a prominent group of European orthopaedic surgeons who were focused on raising the level of knowledge and education in Orthopaedic Sports Traumatology and ensuring the high quality of treatment for patients suffering from relevant conditions and injuries.

This year the congress is held in the fashionable and historical city of Milan, located in the region of Lombardi in Northern Italy from 8th to 10th of May 2024. The venue is the Allianz Milan Congressi or MiCo located in the Fiera Milano CityLife district. It was announced that around 4500 attendees were present this year, the biggest number thus far for the ESSKA Biennial Congress. The biggest names in the field from Europe and other parts of the world were in attendance as part of Key Opinion Leaderships and various other consensus meetings organised during the Congress.

Quite a significant number of attendees form the Malaysian contingent, signifying the high level of interest in this field of expertise which hopefully will translate to improvements of the quality of care of the Malaysian public as well as elevating the level of knowledge and exposure to the Malaysian practitioners.

continue on page 20

Industry partners were out in force for the congress with a record number of exhibition booths displaying the latest in medical technology as well as Meet The Expert Sessions, Corporate Symposia and Product Theatre sessions.

The Congress Opening Ceremony was held on the 2nd day, with ESSKA President Roland Becker from Germany presiding as well as ESSKA Congress Milano President Pietro Randelli from Italy delivering the opening speeches. Among matters highlighted are the ESSKA Certification Program, ESSKA Academy and Women in ESSKA Initiative. The Congress was declared open upon delivery of the ESSKA Flag by the ESSKA Cycling Team who had been parading the flag on their bicycles riding through their Cycle For Science 2024 Tour. The ride was also represented by Malaysian Orthopaedic surgeons, namely Drs. Chin Chee Howe, Soon Chee Khian & Ng Wuey Min.

The Opening Ceremony was subsequently followed by the Presidential Lecture delivered by Prof Dr Jon Karlsson from Gothenburg, Sweden. Also known as the Eijnar Eriksson Lecture named after the Swedish Orthopaedic Surgeon who initiated the formation of ESSKA, Prof Karlsson touched on ESSKA history and developments throughout the years, including the establishment of the official ESSKA Journal, KSSTA (Knee Surgery, Sports Traumatology & Arthroscopy). After 16 years of dedicated services, he announced his retirement from the post of KSSTA Editor-in-Chief and handed over the reins to Michael Hirschmann.

Jon Karlsson & Michael Hirschmann at the ESSKA 2024 Presidential Lecture

The ASEAN Society for Sports Medicine & Arthroscopy (ASSA) also took the opportunity to organise a meeting on the sidelines of the ESSKA 2024 Congress. Apart from the usual executive committee meetings during the Annual ASSA Scientific Meetings held at the various ASSA member countries, regular sideline meetings have been held at any of the other international meetings which are well attended by ASSA Exco members, namely the ESSKA, ISAKOS and APKASS congresses. This year the main agendas of the ASSA Exco meeting were the upcoming ASSA Scientific Meeting to be hosted by the Vietnamese Arthoscopy & Arthroplasty Society (VAAS) in Hanoi this September, as well as the initial ASSA Traveling Fellowship program to be started in 2024.

Overall this ESSKA 2024 Congress in Milan, Italy has been deemed a success with a variety of scientific topics and learning programs covered, as well as international and regional networking opportunities and exposure to the latest in medical technology and industry exhibits.

Report On ESSKA 2024

By Dr Johan Ahmad
KPJ Damasara Hospital

DAY 1: Knee Symposium
An excellent session on new techniques in dealing with knee cartilage injury-something we commonly see these days in our practice due to the increasing number people engaging in various sports activities. Utilising minced cartilage & cartilage chips, give new hope for patients to preserve their knee joint. Previously patients had to undergo more invasive procedures like arthroplasty to treat these conditions.

Subsequent session on how to manage multi ligament knee injury provide a good insight & good algorithm on dealing with these cases, as more patient nowadays presented with more than one knee ligament injury. Cases presentation from various experts worldwide offer more options to treat these injuries.

DAY 2: Shoulder Symposium
Managing acute ACJ injuries always present with multitude of treatment options, all of which have their own advantages & disadvantages. Using various different techniques, each ACJ cases have to be dealt with on an individual basis ie no specific one single option of treatment will suit every acute ACJ cases. Choices to repair or reconstruct always been a dilemma to surgeon, hence various factors need to be considered before deciding on the correct treatment plan.

Sessions on shoulder instability treatment with associated bone loss give good insight on treatment options, and factors that need to be examined before deciding on the correct surgery. Quite often these cases are not managed properly, hence giving rise to failed shoulder stabilisatiion surgery.

DAY 3: Knee & Shoulder Symposium
Presentations on dealing with ACL revision cases are invaluable, as many deciding factors come into play which will determine the outcome & methods of treatment, either single or two-stage procedures including tips & tricks in dealing with ACL tunnels placement.

Shoulder rotator cuff treatment options including new surgical techniques utilizing synthetic graft to address massive cuff tear cases, as well as a more invasive procedures namely reverse shoulder arthroplasty when other options are not possible.

Finally, new development in shoulder arthroplasty have seen more recent advancement in terms of implant choices & design, patient satisfaction with regards to shoulder functions & outcome after the treatment.

My Espresso for the 21st ESSKA Congress in Milan, Italy

By Dr. Thinesh Varan Subramaniam
Hospital Tuanku Ampuan Najihah, Kuala Pilah

The 21st European Society of Sports Traumatology, Knee Surgery, and Arthroscopy (ESSKA) congress was held from May 8th to May 10th, 2024, at Allianz MiCo Milano, Italy. The theme of the congress, "Science Meets Art," celebrates the rich artistic and scientific excellence that runs deep through every layer of this city and the nation of Italy. It was attended by 4,500 delegates from around the globe.

This world-class orthopedic congress was a prestigious meeting of professionals, researchers, and experts dedicated to advancing knowledge and innovation in recently developed techniques in orthopedic surgery. Distinguished for its excellence, the congress attracts leading figures in the field who deliver content covering cutting-edge research and engage in dynamic discussions on current advancements and best practices in orthopedics.

The congress featured highlight and keynote lectures, symposium debates, and free paper sessions. The most anticipated talks were "Development of Medial and Lateral Knee Injury Treatment" by Dr. Robert F. LaPrade and "Evaluation of Patella Instability Treatment" by Dr. David Dejour. These presentations were outstanding, with every sentence imbued with decades of experience, expertise, and passion for orthopedic care, drawing excitement and inspiration from the delegates. Moreover, the networking opportunities at this congress were unparalleled, allowing participants to connect with colleagues, forge collaborations, and build relationships with leading experts and institutions worldwide. The exchange of ideas and experiences among the delegates enhanced the overall experience and fostered collaboration.

I would like to express my sincere gratitude to the Malaysian Arthroscopy Society (MAS) for providing me with an educational grant to attend the 21st ESSKA Congress in Milan, Italy. Your support means a great deal to me, and I am truly honored to have been selected as a recipient and to have successfully represented the orthopedic department of Hospital Tuanku Ampuan Najihah, Kuala Pilah, at the congress.

Overall, this world-class orthopedic congress serves as a premier platform for advancing knowledge, fostering collaborations, and shaping the future of orthopedic surgery on a global scale. The knowledge and connections gained are invaluable to my professional growth, and I am truly appreciative of the Malaysian Arthroscopy Society (MAS) for facilitating my attendance. Thank you once again for investing in my development and enabling me to participate in such a prestigious event.

Welcome banner for 21st ESSKA Congress.

Picture with Dr. Robert LaPrade from University of Minnesota and Dr. Alan Getgood from Fowler Kennedy Sports Medicine Centre.

ESSKA Milan Congress 2024

By Dr Darhaysyam Al Jefri
KPJ Bandar Dato Onn Hospital

I thoroughly enjoyed gaining new knowledge and learning about advances at the ESSKA Milan Congress 2024—"Science Meets Art." This was my first ESSKA Congress, and I was delighted to attend a brilliantly organized conference covering a wide range of relevant topics that will greatly benefit my orthopedic practice. The program was spread over three packed days with many concurrent sessions to choose from.

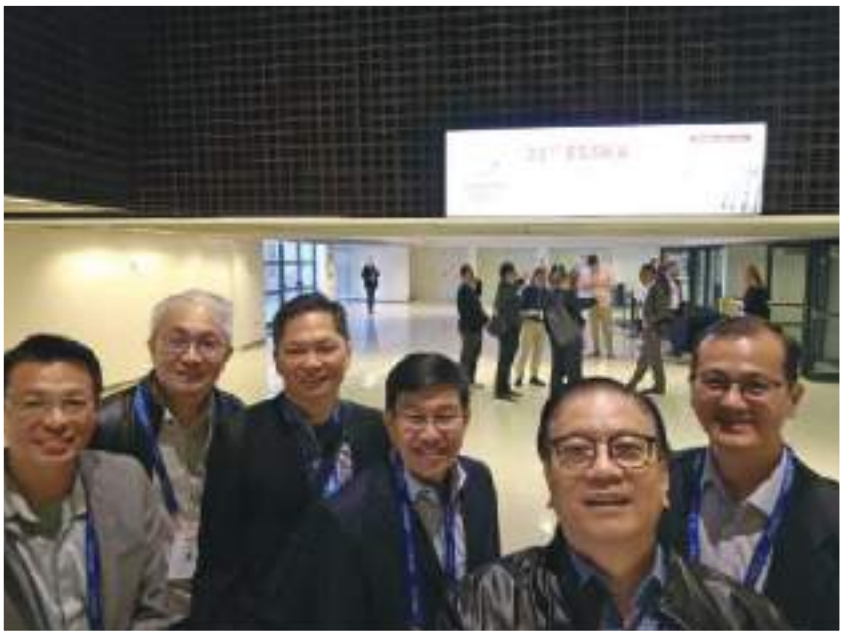
I had the opportunity to meet my teacher and friend, Prof. Rene El Attal, from my fellowship time in Innsbruck. One of the highlights of the congress for me was the brilliant lecture by the master of patellofemoral instability and trochleoplasty, David Dejour himself.

A great bonus was a captivating talk on the work of Leonardo da Vinci and the amazing musculoskeletal details in his art.

Thank you to the Malaysian Arthroscopy Society (MAS) for the grant. It is greatly appreciated!

Report On ESSKA 2024

By Dr Khoo Shaw Ming
KPJ Pasir Gudang Specialist Hospital



I am grateful for the opportunity to attend the 21st ESSKA Congress in Milan from May 8th to 10th, 2024. It has been wonderful to participate in an international conference in person again after the pandemic.

This was my first trip to Milan, the fashion capital. While I found the city a bit lacking in natural beauty- being more of a nature-loving person. I thoroughly enjoyed the ESSKA congress, which was filled with interesting lectures and discussions. The topics covered by renowned international speakers were highly informative and insightful, significantly enhancing my understanding of sports injuries, particularly the latest consensus on the treatment of cartilage and meniscus injuries. The lectures I attended primarily focused on knee-related topics, which remain my main interest.

The exhibition halls were bustling with numerous commercial exhibitors. I was particularly interested in those offering options for orthobiologics for the treatment of cartilage injuries, which are still not available in Malaysia. We should evaluate these options, along with their publications and clinical results. If the outcomes are promising, we should consider bringing this new technology to Malaysia as a treatment option for our patients.

Overall, the 21st ESSKA Congress was a great experience. I was also able to catch up with old friends and meet new acquaintances.

Thank you.

My Experience At The ESSKA 2024

By Dr Chan Kok Yu
Gleneagles Penang

The 2024 ESSKA Congress was held at the Allianz MiCo Milano Convention Centre, Milan from 8 May 2024 to 10 May 2024. ESSKA stands for the European Society of Sports Traumatology, Knee Surgery & Arthroscopy. ESSKA is the representative society of Europe for the fields of knee surgery and sports medicine / arthroscopy.

The ESSKA Congress is held two yearly in different European cities. The congress seeks to educate and update surgeons and also supporting medical staff like physiotherapists, nurses etc in the latest updates, research and developments in the fields of sports injuries, knee surgery and arthroscopy. This year in Milan, it was no exception. The congress was well organised and had a very good diversity of topics covering arthroscopy and sports surgery as well as knee arthroplasty.

This year, there was a good series of lectures about robotic assisted knee replacement surgery (RA-TKR). I found this useful as back home in our country, Malaysia, we are beginning to go into robotic assisted TKR. The European surgeons were able to share about their experience using the various RA-TKR systems like Mako, Rosa etc. Robotic technology will help provide better precision to the TKR surgery and enable surgeons to better individualise the TKR to each patient who is different from one another rather than using a 'one size fits all' type of surgery like in conventional TKR. I learned a lot from the lectures.

As with previous years, the ESSKA Congress 2024 in Milan continues to fulfil its objective of enabling surgeons worldwide to share their knowledge, expertise and experience with one another and to provide updates to all on the newest developments in the field of arthroscopy and knee surgery.

A Short Write-Up On Experience At The ESSKA 2024 Congress

By Dr Mohd Rusdi Abdullah
Subang Jaya Medical Centre

I recently attended the ESSKA 2024 Congress in Milan, Italy from 8 – 10 May 2024 with "Science Meets Art" as the motto. Over 4000 delegates, 500 faculties and 90 exhibitors from all over the world gathered for one of the world's biggest congresses on Arthroscopy, Knee Surgery and Arthroscopy. The event was divided into a full 3 days of special lectures, ICL, symposium and hot topic debates discussing on updated and relevant trends in the practice and results of latest researches and clinical experience.

I was inspired with the esteemed presentation, live surgeries and innovative approaches shaping the future treatment of many common and uncommon sports injuries. Some of the most exciting presentation I attended are the current concepts in osteotomy around the knee, how to deal with different types of meniscus tear, the increasing trend of reconstructing the anterolateral knee ligament, the biologic treatment of subchondral bone knee injury, ankle cartilage injury management and the latest approach on ACL revision surgery.

Thank you for giving me the opportunity to attend this conference, updating myself and connect with the professionals in this fraternity.

ESSKA Milan 2024 Experience

By Dr Sazali Bin Salleh
KPJ Pahang Specialist Hospital

I had the opportunity to attend the 21st ESSKA Conference held in Milan from May 8-10, 2024. It was an excellent conference featuring many interesting topics across a wide range of areas in arthroscopy, including knee and shoulder surgery, cartilage surgery, ligament reconstructions, and more.

In addition to the outstanding presentations, there were also impressive research papers shared in both oral and e-poster sessions. A lot can be learned from this congress, as it allows me to expand my knowledge in arthroscopic surgery and enhance my understanding of various treatment options available.

Attending the congress also provided me with the chance to meet many world-renowned surgeons from around the globe. Clinical discussions and collaborations were fostered through networking, which is beneficial for our field of practice.

The knowledge gained from this conference can be shared with other surgeons involved in the treatment of sports injury patients in Malaysia. This will further improve the quality of arthroscopic surgery in the country.

A Short Write-Up On Experience At The ESSKA 2024 Congress

By Dr. Soon Chee Khian and Dr. Ng Wuey Min
Loh Guang Lye Specialists Centre and Sunway Medical Center

We attended the 21st ESSKA Congress held in Milan, Italy, from May 8-10, following my participation in the ESSKA 4th Cycle for Science from May 2-7. The congress showcased cutting-edge research and advancements in orthopedic sports medicine and knee surgery, providing a platform for sharing insights and networking with experts from around the globe.

Topics ranged from innovative surgical techniques to rehabilitation protocols, emphasizing the latest in sports injury management and patient care. It was an enriching experience that deepened my understanding and appreciation for the ongoing evolution of the field.

I would like to extend my gratitude to Smith & Nephew and the Malaysian Arthroscopy Society (MAS) for giving us this opportunity.

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Rediscovering the Ground – Running Barefoot

By Dr Sharifah Nor Amirah bt Syed Abdul Latiff Alsogoff
MAS Editorial Member

Picture a person running a marathon : Clad in a moisture-wicking sleek top with lightweight shorts, geared with sunglasses to shield the eye from the day's sun, a black waistband with gel filled pockets and a fitness band wrapped around the wrist. The crowning piece of this ensemble -the most essential gear- is FOOTWEAR. A top-of-the-line, high performance running shoe, engineered for both performance and comfort. The well cushioned midsole absorbs impact with each stride while the arch support provides necessary stability. The durable outsole rubber grips the ground with tenacity, providing good traction and stability through every mile, completed with a breathable mesh ensuring ventilation and cooling, making the runner feel like a modern day 'pegasus' soaring down the course.

It has been well ingrained in us (mostly by shoe companies) the idea for a need of good running shoes ,in order to be faster, to prevent injuries and to look cool whilst doing it. Sure, you might look extremely sleek rocking a pair of well-padded ,cloud-like shoes. But are these cushioned marvels really the key to preventing injuries and unlocking greater speed and endurance? But do these cushioned marvels really offer what their manufacturers claim they do? The answer is probably not.

There is an unacceptable number of runners ranging from 30-70% each year that are plagued by running related injuries Yet, despite the evolution of shoes into ever more snazzier and sophisticated designs, the number of injuries remain stubbornly high over the last three decades. There is currently no clinical evidence that cushioned soles or pronation controlled shoes, can in fact, prevent running injuries, and no shoe company will admittedly tell you so! In that case, why waste all that money on a "good" pair of running shoes. In fact, one study even found that more expensive shoes were associated with greater incidence of running injuries. However, this oversimplified observation should be approached with caution.

So, does this mean we should be running nude (from ankle down)? Should we be running barefoot?

When I first heard of the term barefoot running, I scoffed at how ridiculous it sounded. Ditch shoes? I wouldn't last a quarter mile without stepping on a piece of glass or a sharp pointy rock. But then I discovered that going barefoot didn't necessarily mean a complete absence of shoes, it meant embracing extreme minimalism. Footwear that mimicked the experience of being barefoot, offering just enough to protect the feet from hazards on the ground, at the same time allowing one to run as if barefoot. Footwear that let your feet be feet. This could take the form of a sandal, or a shoe with no 'heel to toe drop' (no cushion under the heel; leveled toe and heel). It should be light, flexible with no arch support and a wide toe box.

So why exactly is there a movement away from the conventional running shoes and embracing the ground we run on? The surge in barefoot

..... *continue on page 31*

running was largely popularized by one of the most influential running books 'Born to Run' by Christopher MgDougall, published in 2010. In his book, McDougall argues, that if our species/ancestors before us ran long before the existence of shoes, why are we running in shoes now? He delved into the lives of the Tarahumara Indians of Mexico, a group known for their amazing athletic feat and endurance, renowned to be the best ultra runners, mainly attributed to their barefoot lifestyle.

The invention of shoes are said to coddle our feet. To ease the burden on our feet from working hard. A foot 'La-Z boy recliner' if you will. But this comfort comes at a cost, weakening the intrinsic muscles in our feet. Our feet are designed to withstand the hard, uneven ground. Strong intrinsic foot muscles can improve the deforming mechanism of the longitudinal arch, increasing flexibility of the foot, which in turn assist in providing efficient gait, better shock absorption and spring-like recoil that propels us forward, all while offering greater stability.

Advocates of barefoot running often credit this form of running as their salvation from long-term injuries. How does that work exactly? The cushioned heel that we've come to rely on has dramatically altered the way our foot strikes the ground during a run. Over time, running barefoot is said to naturally transform our running form. Most barefoot runners tend to land on their forefoot or midfoot rather than the heel, as shod runners typically do. A forefoot strike encourages a flatter foot placement at touchdown, greater plantar flexion, and a more flexed knee and ankle upon impact. This method distributes the impact force across a larger surface area, rather than concentrating it solely on the heel. As a result, the lower vertical impact force and increased patellofemoral contact from greater knee flexion reduce the stress on the patellofemoral joint. Consequently, common running injuries such as hamstring and gluteal strain, patellofemoral pain, iliotibial band syndrome, tibial stress fractures, and plantar fasciitis are said to be less common among forefoot runners. Running barefoot also enhances plantar somatosensory feedback - our ability to 'feel the ground'- a function that is often dulled by wearing shoes. This ground sensing activates reflexes that strengthen the muscles and arch of the foot, increase ankle stability, and help avoid painful impacts, thereby reducing the risk of injury.

.....continue on page 32

Some examples of minimalist running shoes. Picture taken from www.gearpatrol.com
From the top left to right: Merrell Vapor Glove, Xeroshoes HFS, Altra Escalante Racer
From the bottom left to right: Merrell Trail Glove, Vibram Five Fingers

Unfortunately, while the concept of barefoot running may sound promising, it's not a catch-all solution for preventing injuries. Research shows varying findings, partly because the factors causing repetitive stress injuries are complex and multifactorial. Some studies suggest that barefoot running may increase the risk of gastrocnemius and Achilles tendon injuries, as well as metatarsal stress fractures. However, proponents counter this by arguing that the issue lies in not giving shod feet enough time to adapt to being barefoot - a process that should be approached gradually. Research by Lieberman and his colleagues found that after just six weeks of training with minimalist shoes, half of the initial heel strikers naturally transitioned to a forefoot landing pattern, without any coaching or feedback. This suggests that our feet can be retrained to run as they once did. However, this transition must be made gradually. It is a form of running that isn't instinctively acquired, but requires practice in order for our feet to adapt. Years of wearing shoes have left many of our foot and calf muscles relatively weak. Experts often recommend starting with just a few minutes of barefoot running, two to three times a week, and then slowly increasing the duration. Over time, this can lead to short runs and eventually, running entirely without conventional running shoes.

While it may be too late to turn back the clock and warn our ancestors, all is not lost. Whether you're shod or barefoot, the form in which we run holds the key, and the good news is, that form can be trained.

Above all, it's the technique of running that is paramount. It's not about the brand of shoes you lace up, the pre-run stretches you perform, or the miles you log. Like any sport, it's all about the technique. Yet, we rarely stop to think about how we run. It feels so innate, so natural, that we hardly consider our form. But what we fail to realize is that the arrival of modern shoes has made us forget how to run. Our feet no longer engage with the earth as they once did, no longer navigate the terrain with instinctive precision. Consequently, our foot strike has changed, and with it, a wave of running injuries has emerged, injuries that might have been unheard of when our ancestors ran barefoot or in simple sandals.

Prof. Daniel Lieberman, a leading paleoanthropologist and a prominent researcher of barefoot running, said in one of his papers, "How one runs probably is more important than what is on one's feet, but what is on one's feet may affect how one runs."

> *"Running barefoot allowed me to rethink the mechanics of our gait. It has thought me that the foundation of good orthopaedic health begins from the ground up. Understanding the natural movement of the limbs has given me a deeper appreciation for how we can prevent injuries and optimize performance-not just in running, but all aspects of mobility"*
>
> ***Dr. Khairul Anwar Ayob***
> *Arthroplasty Surgeon,UMMC*

Dr. Khairul is seen running in barefoot sandals

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SCOPE Insight

Malaysian Arthroscopy Society (MAS) was established in 2013 with the goal of advancing arthroscopy and sports injury management in Malaysia. Since its inception, the society has focused on promoting education, research, and best practices in arthroscopic surgery and orthopedic sports medicine.

Insight Scope is a publication released by the **Malaysian Arthroscopy Society (MAS)**. It serves as a valuable resource for healthcare professionals, particularly those involved in arthroscopic surgery and sports medicine. The publication is designed to offer insights, updates, and educational content related to the latest advancements and trends in the field.

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