

Malaysian Arthroscopy Society Council Members 2023/2025

President

Assoc. Prof. Dr. Mohd Nizlan Mohd Nasir

Vice President

Col. Dr. Kok Choong Seng (Rtd)

Secretary

Assoc. Prof. Dr. Teo Seow Hui

Assistant Secretary

Dato' Dr. Shahrulazua Ahmad

Treasurer

Assoc. Prof. Dr. Raymond Yeak Dieu Kiat

Exco

- Dr. Harjeet Singh
- Dr. Mohd Azrin Shahul Hamid

Past Presidents /Advisors

- Dr. Hishamudin Masdar
- Prof. Dr. Wan Hazmy Che Hon
- Maj. Gen. Dato' Dr Mohammad Amirrudin Hamdan (Rtd)
- Col. Dr. Azmi Abdul Latif (Rtd)
- Datuk Dr Mohd Asri Abd Ghapar

Regional Representatives

- Dr. Vicknesh Anandan (North)
- Dr. Darhaysyam Al Jefri Mohamed Muslim (South)
- Assoc. Prof. Dr. Mohd Fairudz Mohd Miswan (Central)
- Assoc. Prof. Dr. Khairul Nizam Siron (East Coast)
- Dr. Leong Wan Hee (East Malaysia)

Auditors

- Dr. Abdul Razak Hussin
- Dr. Sazali Salleh

Contact Detail

✉ secretariat@my-arthroscopy.com

☎ +6018 788 1399

🌐 malaysianarthroscopysociety

🏠 Malaysian Arthroscopy Society

📌 myarthroscopy

Message from MAS President

Dear Esteemed Members of the Malaysian Arthroscopy Society,

I am honored and privileged to address you as the President of the Malaysian Arthroscopy Society (MAS). As I assume the role of the 6th President of MAS, I deeply appreciate the trust and confidence you have placed in me. It is with great enthusiasm and commitment that I take on this responsibility.

Over the next two years, I pledge to lead our society with a vision of progress and innovation, ensuring that MAS continues to thrive and excel in the field of Sports Injury and Arthroscopic Surgery in Malaysia. To achieve our shared goals, I call upon the full cooperation of every MAS member. Your insights, experiences, and dedication are invaluable. As your president, I am here to serve you, and I encourage open communication and collaboration. Let's work together to shape MAS into the leading medical society for Orthopedic Practice in Malaysia.

In the past three months, we have held one CME session on Shoulder and Elbow, with another CME event in March, featuring collaboration with esteemed speakers from Turkiye. We will be honored to have their presence within our fraternity, sharing their vast knowledge and experience.

Regional get-togethers are also being planned for the northern, east coast, and east Malaysia regions. We seek your full commitment and significant contribution to these regional events.

We are also excited to announce the Annual Scientific Meeting in November this year, in the bustling city of Johor Bahru. This time, we will focus our discussions and knowledge-sharing sessions mainly on the knee. I am confident in the capability of the Organizing Chairman, Dr. Harjeet Singh, and his Co-chairman, Dr. Zulkifli Hassan. With the combined expertise of Associate Prof. Dr. Fairudz Miswan, the Scientific Chairman, and his Co-Chairman, Dr. Siva Thangaraju, along with their capable Scientific Committee Members, we will have a memorable scientific meeting for 2024.

Let us continue to strive for greatness collectively. 🙌

Warm regards,

Assoc. Prof. Dr. Mohd Nizlan Mohd Nasir
President
Malaysian Arthroscopy Society



Malaysian Arthroscopy Society

Council Members 2023/2025



President
Assoc. Prof. Dr. Mohd
Nizlan Mohd Nasir



Vice President
Col. Dr. Kok Choong
Seng (Rtd)



Secretary
Assoc. Prof. Dr. Teo
Seow Hui



Assistant Secretary
Dato' Dr.
Shahrulazua Ahmad



Treasurer
Assoc. Prof. Dr.
Raymond Yeak
Dieu Kiat



Exco
Dr. Harjeet Singh



Exco
Dr. Mohd Azrin
Shahul Hamid

Past Presidents / Advisors



Dr. Hishamudin
Masdar



Prof. Dr. Wan
Hazmy Che Hon



Maj. Gen. Dato'
Dr Mohammad
Amirrudin
Hamdan (Rtd)



Col. Dr. Azmi Abdul
Latif (Rtd)



Datuk Dr Mohd Asri
Abd Ghapar

Regional Representatives



Dr. Vicknesh
Anandan
(North)



Dr. Darhaysyam
Al Jefri Mohamed
Muslim
(South)



Assoc. Prof. Dr.
Mohd Fairudz
Mohd Miswan
(Central)



Assoc. Prof. Dr.
Khairul Nizam Siron
(East Coast)



Dr. Leong Wan Hee
(East Malaysia)

Auditors



Dr. Abdul Razak
Hussin



Dr. Sazali Salleh

Chief Editor's Message

Salutations to colleagues and fellow members of MAS,

The Malaysian Arthroscopy Society Editorial Board would like to start the Scope Insight Volume 4 by wishing everyone a great and successful year of 2024.

Last year has been a busy year for us. Various educational events have come to pass, both locally and abroad. Our society's election has also taken place. Thus, Scope Insight would like to welcome our newly elected president and council members and wish them the best for the term. The Editorial Board members might still be the same though, yet we are always thrilled to share news and events that have been happening around the society. We have more articles coming up in this issue.

Social media today is flooded with images, videos and articles on artificial intelligence (AI). Debates, that could turn out to be a heated one, on its pros and cons along with its acceptance, especially in academia, are frequently seen in our feeds. However, do you ever think about the emergence of AI in the field of Orthopaedic Sports Medicine? How can we utilise this technology? Let us read the article from Dr. Sugesh Raghavan on this.

AI might be the thing of today, but I believe we still remember some incidence during COVID19 times like

yesterday. It felt so ashamed when we mistook someone with another person we know because all of us were wearing face mask back then. Sometimes we have no idea who was the person talking so friendly to us, but at that point we were too afraid to ask. I believe the same mixed feelings also happened in Dr. Siva Thangaraju's case when a neck pain ended up being a shoulder problem. Join him in his write up elaborating the diagnostic dilemma he faced in such circumstances.

In between these articles, let us take some time to look back on a few workshops that MAS has endorsed and taken place in 2023. Two of them are highlighted here. We have Loh Guan Lye Specialists Centre Live Surgery Shoulder Course in December 2023 in Georgetown. Earlier in August of the same year, Department of Orthopaedics and Traumatology, Hospital Raja Permaisuri Bainun has organised the Perak Sport Arthroscopy Cadaveric Course (PSACC) in Ipoh. Those who took part are eager to tell us their interesting experience while they were there.

While going through these courses and workshops, we could not agree more that the advancement in medicine allows us to have a wide array of methods we can choose to manage our patients. Things do not always have to end up with medications or on operating table. How about dry needling

to overcome musculoskeletal discomfort? Our Sports Physician, Dr. Norlelawati Mohamad is keen to share with us her interesting article on the therapeutic power of dry needling for musculoskeletal problems in this issue. Make sure to read it at the end of this newsletter!

Before ending my message, I hope we have not forgotten that we have successfully organised our 10th MAS ASM last October, which has also introduced two new events – the Innovation Award and Post-Graduate Quiz Championship. To show appreciation to those who have taken part in these events, we have also invited the winners of Azmi Abdul Latif Award, Sanusi Ghani Award, Innovation Award and Postgraduate Quiz Championship to express their thoughts on the tournaments. Their special messages are included between articles in this volume. Check them out while you read the major articles.

That's all for this issue. It is now time to sit back and relax while we enjoy reading Scope Insight Volume 4. Happy reading, everyone! 📖

Assoc. Prof. Dr. Teo Seow Hui
Secretary (2023-2025),
Malaysian Arthroscopy Society
MAS Newsletter Chief Editor
(2023-2025)

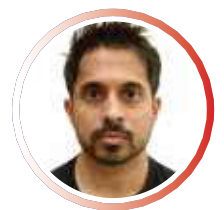
Malaysian Arthroscopy Society 2nd Editorial Board (2023-2025)



Assoc. Prof. Dr. Raymond Yeak Dieu Kiat
Universiti Putra Malaysia



Dr. Robin Low Chin Aun
Shah Alam Hospital



Dr. Sugesh Raghavan
Universiti Malaya



Chief Editor
Assoc. Prof. Dr. Teo Seow Hui
Universiti Malaya



Dr. Siva Thangaraju
Bukit Tinggi Medical Center



Dr. Ahmad Farihan Mohd Don
Hospital Canselor Tuanku Muhriz,
Pusat Perubatan UKM



Dr. Sharifah Nor Amirah bt Syed Abdul Latiff Alsagoff
Universiti Teknologi Mara



Dr. Muhammad Usama

Ghurki Trust Teaching Hospital Lahore, Pakistan



I am from Pakistan and I have had the privilege of attending the Annual Scientific Meeting of Malaysian Arthroscopy Society (MAS) for the last two years as an international delegate. The hospitality and supportive nature of organizers as well as the senior faculty has been admirable. The

academic sessions were very informative and the work quality of sports medicine being practiced

by MAS is leading the way for the rest of the world. I had the opportunity to present my research on the stage of MAS for the last two years and compete for the Azmi Abdul Latif Award (AALA) award. There were some fantastic presentations of original work during the contest and fortunately I won the Azmi Abdul Latif Award at the MAS Annual Scientific Meeting 2023. I must mention that I learnt a lot during the whole contest and hope to improve my surgical as well as academic skills from the experience. I am eagerly looking forward to the opportunity of attending the MAS Annual Scientific Meeting in 2024 as well. 📍



Dr. Thinesh Varan Subramaniam

Hospital Tuanku Ampuan Najihah

Breaking Boundaries: Orthopaedic Surgeon's Journey towards the Azmi Abdul Latif Award

On a typical Monday in September 2023, whilst in the operation theatre of Hospital Tuanku Ampuan Najihah, Kuala Pilah, preparing a patient for knee arthroscopy, my phone ringtone broke the silence.

My assistant told me it was a call from Malaysian Arthroscopy Society and handed the phone to me. I answered the phone call and the person in charge delivered the good news:

“Congratulations Dr. Thinesh, your presentation has been selected for Azmi Abdul Latif Award free paper oral presentation as a finalist” – I was overcome with excitement at having reached the finals!

The annual Malaysian Arthroscopic Society Scientific Meeting boasts the Azmi Abdul Latif Free Paper Oral Presentation Award, in honour of Col (R) Dr Azmi Abdul Latif.

The 2023 meeting was held in Marriott, Putrajaya from 12th to 14th October. I had submitted my paper abstract entitled ‘Bone Marrow Lesions of the Knee Treated with Subchondroplasty: A Retrospective Study’, a month earlier for this award competition. It was a full year’s work, and I had hopes for recognition of its clinical implications at the national level.

..... [continue on page 5](#)

I delivered my oral presentation as a finalist on the 12th of October – an event chaired by Associate Professor Dato’ Dr. Badrul Akmal Hisham and the judges were Dato’ Dr. Abdul Wahab Abdul Ghani, Dato’ Dr. Shahrulazua Ahmad and Professor Dr. Jin Goo Kim. I provided a concise summary on the observed outcomes of Subchondroplasty in treating bone marrow lesions of the knee. I systematically outlined the methodology, discussed the rationale behind the technique and presented gripping evidence from my study that supported its effectiveness. Furthermore, I illustrated the positive impact of this technique on patient’s postoperative pain, functional recovery and overall quality of life. The judges commended the clarity and coherence of my presentation, the solidity of my study design and statistical analyses, and the demonstrated clinical significance of Subchondroplasty.

An anxious two-day wait culminated in the



Questions and answering session with the judges during Azmi Abdul Latif Award presentation.

announcement that I was the first runner up for the 2023 Azmi Abdul Latif Award! A proud achievement, considering the range and number of submissions and tactful presentations I experienced at the conference. Personally, the award validated the value of my contributions to my field of expertise and reinvigorated my drive to continue in pursuit of excellence, both professionally and within my organization. The participation also provided me with an opportunity to experience wider research in the field, and network with leading orthopaedic professionals and

researchers, potentially opening doors for future collaborations.

I wish to acknowledge the support and guidance of my immediate supervisor, Dr. Gopinath Mathavan, throughout my research project and beyond.

I ask that you, my colleagues, also take encouragement from this achievement, to continue pursuing betterment as professionals in your chosen field of expertise, and to recognise the important role of sound research in this endeavour. 🙏



Dr Nor Hamdan Faku
Hospital Universiti Sain Malaysia

Dear MAS committee members, I am writing to express my heartfelt gratitude for the prestigious Azmi Abdul Latiff Awards that I had the honour of receiving as the second runner up. It is with great humility and appreciation that I accept this recognition for the work that have been done.

I would like to extend my deepest thanks to the members of the committee for considering me worthy of this esteemed award. It will inspire me to continue striving for excellence and pushing the boundaries of what I can achieve.

This award represents not only personal achievement but also the support and encouragement I have received from my colleagues, mentors, and the entire team. I am truly grateful for the opportunities I have been given to excel in my field and make a positive impact. I also want to acknowledge my mentor, colleagues, and friends for the continuous guidance, support, and unwavering belief in me. I am truly fortunate to have such amazing people in my corner.

Lastly, I would like to express my gratitude to the organization for providing an environment that fosters growth, innovation, and recognition. It is through your commitment to excellence that I have been able to thrive and reach new heights in my career. I am motivated to continue making a meaningful difference in my profession. I will cherish this award as a symbol of hard work, dedication, and the belief that dreams do come true.

Thanks again. 🙏

Artificial Intelligence in Orthopaedic Sports Medicine

By Dr. Sugesh Raghavan
Universiti Malaya

Artificial intelligence (AI) has been touted upon in the mass media as the fourth industrial revolution after steam engines in 1760s, electricity and petroleum discovery in 1870s and computers in the 1970s. Such has been the impact or potential future impact of AI in our lives. Many examples of the impact of AI are already apparent to most of us such as selfdriving cars and targeted commercials when using internet browsers or social media applications which makes you wonder if the computer is reading your mind.

What is AI?

The term was first coined by John McCarthy in 1955 as the “science and engineering of making intelligent machines”. He forecasted at that time that machines will be able to carry out many tasks normally associated with human effort such as abstract thinking and problem solving.

Machine learning (ML), a term commonly used interchangeably with AI, is in fact, a subset of

AI which uses computational methods to analyze large data sets to collect, analyze and predict certain outcomes. These models are able to “learn” from the data input given with minimal human programming. As a simplistic explanation, ML models are given specific data input and outputs and based on these, they are able to recognize patterns and thus, predict outcomes or make inferences. With greater input or volume of data, the models are able to “learn”, thus, making them more efficient at recognizing certain patterns and predicting outcomes over time. These models require some level of “human supervision” as they are given a set of input and output data at first, which the model then “learns” from.

A more sophisticated type of ML model is known as deep learning (DL). Deep learning uses complex algorithms that require minimal or no human supervision. These models are able to mimic the function of the biological brain. Given raw and unstructured data, these DL models are able to analyze the data through multiples layers of

deep neural network, filtering out variables of low relevance and coming to a prediction.

There has been a rapid rise in the use of AI in the field of medicine and more recently, orthopaedic surgery itself. A recent PubMed search on “AI and orthopaedics” revealed more than 3000 results in the past 10 years. The application and use of AI in orthopaedics is certainly promising as we deal with a growing body of patient information which becomes difficult and time-consuming to be synthesized by the physician alone in pursuit of predicting outcomes. This article will summarize some of the potential applications of AI in our field of orthopaedic sports medicine.

Predictive Analytics

As mentioned earlier in the introduction, AI enables us surgeons to harness the power of predictive analytics to anticipate postoperative outcomes and optimize management strategies. Machine learning models can analyze large patient databases which can include patient demographics, radiographic findings, type of surgery and determine prognostic factors for optimal postoperative outcomes. For instance, a hip arthroscopy surgeon could input database of 100 patients with hip labral tear including their demographic and radiological features and outcomes with primary hip labral repair versus reconstruction. The ML model can then predict the “right” surgery (i.e. repair or reconstruction) for those patients based on their different demographic and radiological parameters. Similarly, ML models have been used to



..... [continue on page 7](#)

predict minimally clinically important differences in patients undergoing osteochondral graft transplantation of the knee and need for prolonged postoperative analgesia in patients undergoing knee arthroscopy. These findings can certainly assist surgeons in clinical decision making to optimize patient outcomes.

Athlete Injury Risk Prediction

The health of professional athletes has become an important commodity in the industry of professional sports. Injuries could result in millions lost in player salary as well as expenses for treatment of the injury itself. As such, injury prevention has become a cornerstone in optimizing player care. In the United States, ML models have been used to study nextseason injury risk in the National Hockey League and Major League Baseball players. Karnuta et al used yearly injury data with player specific metrics to “train” ML models and were able to come up with algorithms predicting next-season injury risk with accuracy up to 94.6%, outperforming the usual logistic regression models used. This information can be used by team physicians and coaches to manage player training schedules, intensity, game time and other prognostic risk factors identified by the ML models to minimize the risk of injury to the players.

Pre-Operative Planning

Another huge impact of AI in orthopaedic surgery has been

in preoperative planning. ML models have shown to be able to analyze huge datasets of imaging such as radiographs, MRI and CTs with unparalleled speed and accuracy. By providing radiographic inputs, these models are capable of designing preoperative plans for surgeons. This has been evident in the arthroplasty world where ML models have been used to predict femoral and tibial components for knee arthroplasty. Similarly, some researchers were able to use ML models to create preoperative plans for high tibial osteotomy (HTO). Radiographic data from patients who previously had HTO were used to “train” ML models which were then able to design plans for surgeons. These plans were analyzed and compared with manual plans and were found to be as good or even better in some cases.

AI-driven Rehabilitation Programs

The advent of wearable technologies incorporated with AI will potentially revolutionize the way we approach postoperative care and rehabilitation. Smart wearables have the potential of not only monitoring patients’ compliance to programs but also provide real-time feedback to patients regarding exercise pattern, accuracy and intensity. This information can then be relayed to physicians and physiotherapists to make necessary adjustments to the rehabilitation protocol. Moreover, this can also help

extend the reach to patients who don’t have nearby access to physiotherapy centers as with the smart wearables it can be akin to having a physiotherapist at home with you.

Surgical Skills Training

Many institutions have started using virtual surgical training tools as an alternative to conventional training which is limited in the operating room. With the incorporation of AI into this virtual simulation tools, the experience for the users can be further enhanced. The AI programs can create particular simulations to address the specific user’s strength or weaknesses. For instance, the AI program on a simulator can identify that the user’s performance with instrument handling with his or her non-dominant hand is relatively poor based on previous training session. It can then create an immersive surgical simulation specifically addressing this scenario. It can also provide real time feedback at end of sessions and act as “virtual trainers”.

The list of applications of AI mentioned above is certainly not comprehensive. Nevertheless, it depicts the vast potential it has in revolutionizing the way we diagnose, investigate and manage patients in orthopaedic sports medicine. As surgeons, it is imperative that we embrace these innovations and leverage them to optimize patient care and advance the field of orthopaedic sports surgery. 📍

References:

1. Khoriaty, A. A., Shahid, Z., Fok, M., Frank, R. M., Voss, A., D’Hooghe, P., & Imam, M. A. (2023). Artificial intelligence and the orthopaedic surgeon: A review of the literature and potential applications for future practice: Current concepts. *Journal of ISAKOS: joint disorders & orthopaedic sports medicine*, S2059-7754(23)00590-4. Advance online publication. <https://doi.org/10.1016/j.jisako.2023.10.015>
2. Ramkumar, P. N., Luu, B. C., Haeberle, H. S., Karnuta, J. M., Nwachukwu, B. U., & Williams, R. J. (2022). *Sports Medicine and Artificial Intelligence: A Primer*. *The American journal of sports medicine*, 50(4), 1166–1174. <https://doi.org/10.1177/03635465211008648>
3. Fayed, A.M., Mansur, N.S.B., de Carvalho, K.A. et al. Artificial intelligence and ChatGPT in Orthopaedics and sports medicine. *J EXP ORTOP* 10, 74 (2023). <https://doi.org/10.1186/s40634-023-00642-8>
4. Roth, T., Sigrist, B., Wieczorek, M., Schilling, N., Hodel, S., Walker, J., ... & Carrillo, F. (2023). An automated optimization pipeline for clinical-grade computer-assisted planning of high tibial osteotomies under consideration of weight-bearing. *Computer Assisted Surgery*, 28(1), 2211728.



Professor Dr. Mohd Yazid Bajuri
Universiti Kebangsaan Malaysia

Pioneering Innovation in Surgery: A Surgeon's Journey to Excellence

This opportunity allowed me to explore new advancements in our field, facilitating the discovery of innovative solutions that can revolutionize patient care and improve outcomes.

The Malaysian Arthroscopy Society (MAS) hosted its "10th Annual Scientific Meeting" at Putrajaya Marriot Hotel in October 2023. At this event, the first "MAS Innovation Award" was introduced to honor orthopedic surgeons who have made remarkable advancements in surgery and developed innovative solutions. This award was a big step forward in celebrating excellence and encouraging medical professionals to keep pushing the boundaries of knowledge and technology.

A diverse group of specialists from various medical background consisting of surgeons, scientists and innovators gathered, to see new and important ideas for the first time. As an orthopedic surgeon, I was privileged to have the chance to go into the realm of innovation. This chance allows me to explore new advancements in our field,



..... *continue on page 9*

facilitating the discovery of innovative solutions that can revolutionize patient care and improve outcomes.

Despite the remarkable talent and innovation displayed by other researchers and innovators, I am deeply honoured and immensely grateful to have been selected as the winner of this prestigious award. The competition was tough as a variety of groundbreaking ideas and inventions were presented, all of which contribute to the advancement of medical science and patient care. My innovation, the Biomechanical Evaluation and Clinical Testing:

A Newly Developed Above-Knee Prosthesis with Enhanced Ankle Joint Movement gives me the chance to be the winner.

This innovative prosthesis device represented a significant advance in the field of orthopedic surgery and rehabilitation. In contrast to conventional prostheses, which often limit mobility and functionality, this groundbreaking invention offers improved movement of the ankle joint movement, and mimics the natural gait of the human body. Through meticulous biomechanical evaluation and rigorous clinical testing, I was able to create a prosthetic solution that not

only restores mobility but also improves the quality of life for amputees.

Finally, this MAS Innovation Award, organized by the Malaysia Arthroscopy Society, provides an excellent opportunity for doctors and surgeons to participate in innovation. It is a good platform for all surgeons to be part of this upcoming event so they can showcase their impactful innovations. By supporting MAS dedication and potential contributions, I am committed to supporting initiatives that will advance the orthopedic community and pave the way for future advancements. 📍



Dr. Mohd Fadhli bin Miskon, Dr. Muhamad Firdaus bin Zainudin & Dr. Aminudin Che-Ahmad

Hospital Sultan Ismail

Malaysia Arthroscopic Society Innovation Award 2023; Our Experience

Participating in the inaugural Innovation Award organised by the Malaysia Arthroscopic Society has been an exhilarating journey, one marked by challenges, growth, and ultimately, a sense of achievement as a runner-up winner. As part of one of the five groups competing, the experience has been transformative, both professionally and personally.

The journey started off with difficulty to obtain good radiographic views of the foot and ankle pathologies. Many surgeons will usually be given inconsistent results when we order weight bearing radiographs of the foot and ankle. Without a proper platform for the x-ray cassette to be placed, it is almost impossible to obtain a good x-ray view desired. Commercially available platforms are available but the cost will be expensive.

The development of our ankle platform, Multiview Foot & Ankle Platform (MFAP) involves redesigning the standard platform available for ankle plain radiograph to include other important



..... [continue on page 10](#)

views. Planning and designing was done utilising computer aided design software. The platform has the capability to perform 7 weight bearing views; ankle(AP, Mortise and lateral), foot(AP, Oblique and lateral) as well as one special view (Hindfoot Alignment View or Salzman View). It consists of a specialised radiolucent footrest made from acrylic, which could stand a load of 200kg. It is portable with built in rollers and grab bars for easy mobilisation.

Patients with diverse foot and ankle conditions could use the platform, including individuals with syndesmosis injuries, lisfranc injuries, pes planus, pes cavus and other pathologies.

One of the most rewarding aspects of this experience was the continuous drive to keep on improving the design of the platform. The platform we sent for the award was the fourth edition from the first design

we made. As a runner-up for the Innovation Award, we are honoured to be recognized for our contributions in the innovation circle of Malaysian Arthroscopic Society. This award is not the culmination of our journey; rather, it serves as a catalyst for further exploration, innovation, and excellence in the pursuit of advancing medical practice for the betterment of orthopaedic service in our country. 📌



Dr. Leong Wan Hee
Hospital UMUM Sarawak

“Innovation distinguishes between a leader and a follower”

~ Steve Jobs ~

As the quote goes, innovation is an important aspect for an organisation or society to grow and advance rather than just exist. With that in mind, the Malaysian Arthroscopic Society (MAS) decided in its last Scientific Meeting, to introduce the Innovation award category to elevate the society from just being a society for Sports and Arthroscopic members to a leader in the forefront of advancement in the Malaysian Arthroscopic scene. The timing for such an award was appropriate as it coincided with the 10th anniversary of MAS.

The inaugural event was a small but significant milestone in the young history of MAS. The event was held on 12th October 2023. There were 7 submissions for the Innovation award from various fields in Orthopaedic. Though the number was small, where it lacked in numbers, it made up for in quality and enthusiasm. Each candidate was given 3 minutes to present their project and it was judged by a panel of 3 judges. There was no shortage of questions from the judges as well as curious

onlookers and the exchange of ideas and comments were both fruitful and encouraging for the participants. As importantly, it was also the peer recognition for the hard work put in by all the participants that made this event even more significant.

As the event and meeting drew to a close and the prizes were handed out to the top presenters, I couldn't help but be amazed at how far MAS have come as a society. From its humble beginning as a society for surgeons with special interest in

sports surgery and arthroscopy to now leading the way for innovation and education in the field of arthroscopy. I believe we are no longer just a follower we are now becoming a leader.

The 1st MAS Innovation award had achieved its aim in bringing creativities and ideas onto its own platform to be recognised and celebrated. With the success of this new award category, it is hoped that more surgeons and members would benefit and begin to get more involved in innovation. 📌

“Innovation is the ability to see change as an opportunity – not a threat”

~ Steve Jobs ~



A Diagnostic Dilemma, Shoulder Pathology Masquerading as Neck Pain!

By Dr. Siva Thangaraju
Bukit Tinggi Medical Center

Neck and shoulder pain are common complaints in our clinics, with shoulder pain being the third leading musculoskeletal presentation.¹ A global burden of disease study ranked neck pain as the 4th highest in terms of disability as measured by years lived with a disability. In addition, functional loss, psychological distress and reduced quality of life can be anticipated. Combined, the implications of neck pain on economic burden in terms of health care and productivity loss carry a huge impact.

Differentiating pain from the neck or the shoulder can be challenging, as the pain can be referred from the neck to the shoulder or vice versa. Adding to the challenge, neck and shoulder pathologies can coincide, causing a diagnostic predicament,² e.g., degenerative cervical spine pathology may predispose a patient to rotator cuff tears, while a shoulder injury could negatively influence neck alignment.³ Hence, as clinicians, we must be able to differentiate these disorders and understand

the close interplay between the two systems.

This discussion aims to demonstrate the working aspects of reaching a diagnosis, based on clinical decision rules in the setting of a complex overlapping neck, shoulder and arm pain.

The patient is a 45-year-old woman employed in the administrative office of a logistics company. She dedicates approximately 8 hours daily to desk work, primarily involving computer use, and often extends her work hours at home using her laptop. She is right hand dominant and has no other medical history.

The patient presented with an insidious onset of neck pain that radiated to the upper back, scapula, and right arm over a period of 6 weeks. This pain was persistent and intensified at night, leading her to seek medical treatment from her primary care physician. The physician diagnosed her with cervical spondylosis with radiculopathy and referred her to a spine orthopaedic surgeon for further evaluation

and management. Subsequent investigations confirmed spinal stenosis at C5, C6, and C6, C7, with predominant right-sided C5, C6 radiculopathy signs and symptoms (Fig 1). She was prescribed non-steroidal anti-inflammatory drugs (NSAIDs), muscle relaxants, and physiotherapy. While the oral medication and therapy provided some pain relief, it was minimal. After 2 months of conservative management, she was recommended to undergo facet joint injections, but she opted to continue with physical therapy.

Four months later, the arm pain became intermittent, but the neck and scapular pain persisted. Apprehensive about infiltrations, she sought a second opinion. Taking into account her medical history, the clinician explored additional differential diagnoses beyond the confirmed clinical and radiological evidence of cervical pathology. Cardiac pathology was considered; however, the patient disclosed having completed a comprehensive cardiac evaluation a month before, which was fortunately negative. Additionally, shoulder rotator cuff pathology was considered as a potential diagnosis, as it is known to cause referred pain to the arm, base of the neck, and upper back.

Physical findings

The patient exhibited poor unsupported sitting posture with an increased thoracic kyphosis and a forward head position.

- There was no appreciable difference in muscle bulk between the left and right upper quadrants, although

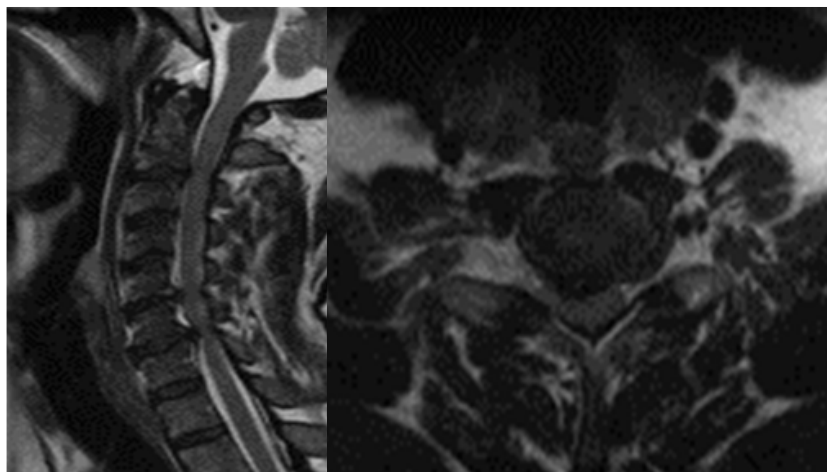


Figure 1. T2 Weighted Sagittal and axial images cervical spine showing central canal stenosis C5C6 and C6C7

..... continue on page 12

she presented with Grade 1 scapulothoracic dyskinesia.

- Range of motion: Her active neck range of motion was restricted during right lateral rotation. Shoulder range of motion was symmetrical, with some end-range pain noted in the right shoulder. The Spurling’s test was negative, while the Neer and Jobe tests were positive.
- Neurological examination showed equal deep tendon reflexes and symmetrical light touch sensation across both upper limbs. Muscle strength in the right deltoid (C5), biceps (C6), and triceps (C7) was graded as 4 according to the Medical Research Council (MRC) muscle power testing scale. Additionally, multiple myofascial trigger points were identified in the left trapezius, levator scapulae, supraspinatus, latissimus dorsi, and deltoid muscles. Pressure applied to the levator scapulae muscle’s trigger point elicited the patient’s radicular pain symptoms.

Diagnosis and Treatment

The combined findings from the history and clinical examination suggested rotator cuff disease rather than cervical spine issues (Table 1). Radiological findings confirmed a partial supraspinatus tear, as depicted in Figure 2.

The patient was treated conservatively with:

- Education about proper posture and workstation ergonomics,
- Physiotherapy focused on myofascial release, and ultrasound therapy and transcutaneous electrical nerve stimulation for pain and inflammation, home-based exercises tailored to strengthen the periscapular muscles, particularly the

lower and middle trapezius to address the scapulothoracic dyskinesia that wasn’t addressed in her initial treatment sessions, and

- A short-term course of NSAIDs and muscle relaxants for 2 weeks.

After 3 months of this regimen, she had reasonable symptom improvement. Even though she was offered subacromial injection or surgical intervention for further relief, the patient refused and wished to continue the home-based physical therapy.

Discussion

A detailed description of the basic science of shoulder-spine anatomy and pathology

of neck and shoulder pain are essential in understanding this overlapping symptomatology. However this is beyond the scope of this report.

For this complicated case presenting with overlapping symptoms, I utilised a diagnosis based on the clinical decision rule proposed by Murphy and Hurwit⁶ that applies 3 essential questions for diagnosis. These are:

1. Is the pain reflective of a visceral or life threatening condition (e.g. a cardiac pathology)?
2. Where is the origin of the pain (e.g. muscular pain)?

..... continue on page 13

Findings favouring the shoulder	Findings favouring the cervical spine
<ul style="list-style-type: none"> • Insidious onset • Night pain and radiation up to elbow • Intact sensation and deep reflex • Pain location • Positive Neer • Positive Jobe • Negative Spurling’s test • End range pain on shoulder AROM • Scapulothoracic dyskinesia • Scapula myofascial trigger points 	<ul style="list-style-type: none"> • Insidious onset • Pain location • Radiating pain up to elbow • C5,C6,C7 muscle reduced power • Reduced AROM lateral rotation • Scapulothoracic dyskinesia • Scapula myofascial trigger points

Table 1 Summary of history and examination findings

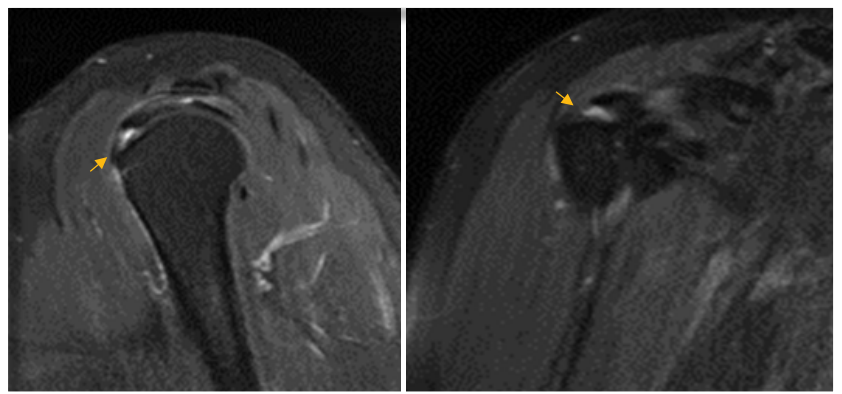


Figure 2. Proton Density Fat Suppressed Sagittal and coronal images showing leading edge of supraspinatus tear.

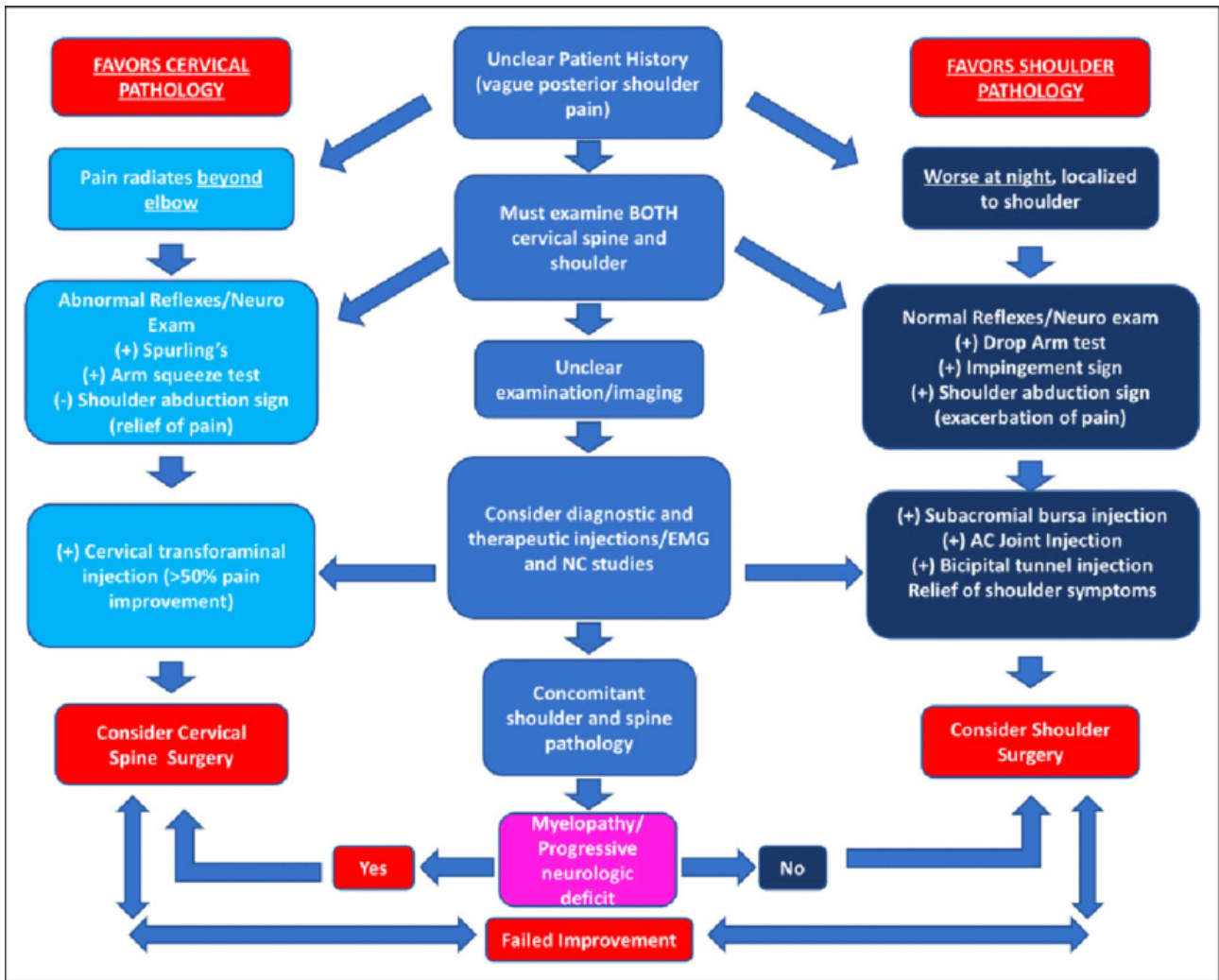


Figure 3. Right side: Pain referral patterns for the shoulder and neck. Left side: Tests to differentiate shoulder from neck pathology. Source: Katsuura Y, et al. *Global Spine J.* 2020 under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs 4.0 license.³

3. What has gone wrong with the person as a whole to allow this problem to develop and persist (e.g. thoracic kyphosis)?

The questions are followed by a detailed cervical and shoulder examination and a clinical assessment to differentiate the shoulder and cervical spine pathology, as summarised in Figure 3.³ The diagnosis and treatment was, in addition, aided by an algorithm proposed by Katsuura, et al. as shown in Figure 4.³ Following these methods facilitated the diagnosis of rotator cuff disease and the treatment plan was tailored to address

the secondary issues such as poor posture, dyskinesia, and myofascial trigger points.

Shoulder and cervical spine issues can overlap or mask one another leading to misdiagnosis and treatment failure. Several reports highlight the prevalence of diagnostic confusion between shoulder and cervical pathologies, or cases where both pathologies overlap, as observed in spine and shoulder clinics.⁴ Imaging studies often yield false positive results for both cervical and shoulder issues, highlighting the importance of clinical correlation in accurate diagnosis.⁵

The literature supports the use of diagnostic injections to distinguish between cervical and shoulder pathology, that can support surgical treatment decisions. Costandi, et al. reported good outcomes from cervical decompression surgery wherein 92% of the patients with radiculopathy demonstrated >50% pain reduction with cervical transforaminal epidural injection.⁷ There is evidence to suggest that the same applies for shoulder infiltrations.

Spino-scapular alignment is predominantly maintained by the trapezius, levator scapulae, and cervical extensors and

..... continue on page 15

Differentiating Shoulder and Cervical Spine Pathology:

Tests Specific For Neck or Shoulder Pathology

- Neck Exam
- Shoulder Exam

Patterns of Referred pain

- Neck Referral Patterns
- Shoulder Referral Patterns

Spurlings test: Lateral flexion with extension of neck causes radiculopathy pain. Specificity 0.93 for neck pathology. (Tong et al.)

Shoulder abduction test: Abduction of shoulder causes relief of radicular symptoms in 68% of patients. (Davidson et al.)

Loss of Biceps Reflex: Specificity 0.94 for neck pathology (Wannier et al.)

Arm squeeze test: Compression of brachial plexus causes local pain. Specificity 0.97 for neck pathology. (Gumina et al.)

Drop arm test: Abduction of shoulder causes impingement pain and patient drops arm. Specificity 0.97 for neck pathology. (Calis et al.)

Cervical facet C3-6: Posterior supraspinatus fossae. (Feinstein et al.)

Cervical disc C3-6: Posterior supraspinatus fossae. (Grubb et al.)

Musculotendinous Interspace C3-6: Posterior supraspinatus fossae. (Feinstein et al.)

AC joint pain: Anterior lateral neck. (Gerber et al.)

Subacromial pain: Lateral deltoid and upper arm. (Gerber et al.)

Shoulder Impingement: Lateral deltoid and upper arm. (Gerber et al.)

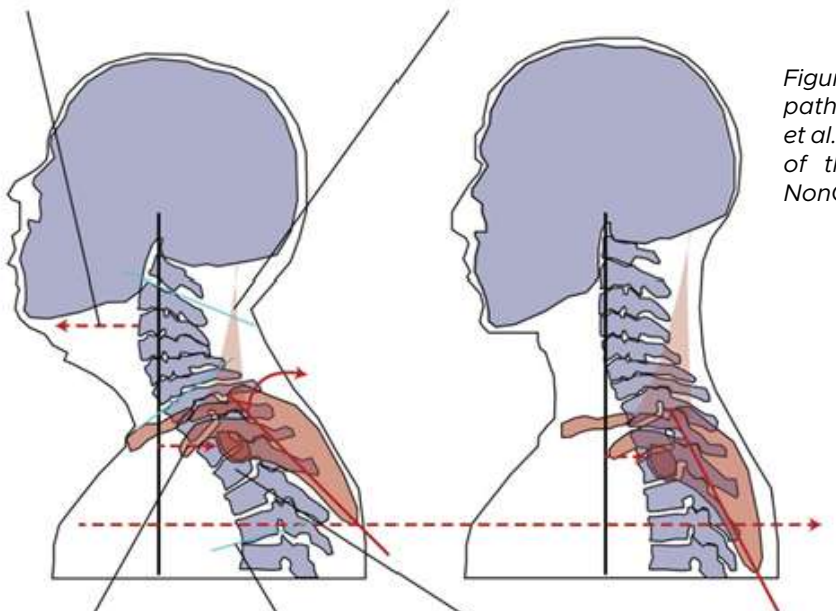
C8 radiculopathy: Inferior scapula. (Tanaka et al.)

Figure 4. Algorithm for the diagnosis and treatment of shoulder and spine pathology. Source: Katsuura Y, et al. Global Spine J. 2020 under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs 4.0 license.³

Alterations in the Alignment of the Scapulo-Spine Complex:

Head forward posture results in increased overuse injury to the shoulder. (Greenfield et al.)

Alterations in trapezius kinematics result in neck pain and shoulder dysfunction. (Gumina et al)



Increasing thoracic kyphosis results in increased retraction of scapula and anterior tilt. (Culham et al.)

Kyphotic-lordotic posture associated with increased rate of rotator cuff tear. (Yamamoto et al.)

Increasing thoracic kyphosis results in decreased posterior tilt of the scapula and increased elevation. (Kebaetse et al.)



Figure 5. Summary of scapula-spine pathologic changes. Source: Katsuura Y, et al. Global Spine J. 2020 under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs 4.0 license.³

flexors. Any imbalance in these muscles leads to neck pain⁸. Thoracic kyphosis leads to scapula and cervical spine malalignment causing alterations to the kinematics of the trapezius, and has been implicated in impingement syndrome⁹ (see Figure 5). There is growing evidence that neurologic dysfunction can lead to rotator cuff tears.³ In this case, these issues were the probable cause of the overlap of shoulder-spine pathology.

Conclusion

The overlap of cervical spine and shoulder pain is common. An understanding of the anatomy, pain referral patterns, and shoulder and spine kinematics is paramount to aid the correct diagnosis of these overlapping pathologies. In addition, an accurate history and a methodical clinical examination are equally important.

The systematic review of 76 articles done by Katsuura et al. summarised the key points of this complex presentation below³:

- Cervical pathologies often refer pain to the posterior shoulder, and shoulder pathologies refer pain to the lateral neck.
- Night pain tends to occur more often in rotator cuff issues. While radicular cervical pain is likely to radiate into the arm and forearm. This difference can help distinguish between cervical and shoulder pathology. Physical examinations can facilitate further differentiation. These include the Spurling's test and arm squeeze test for cervical radiculopathy and the drop arm test, which is highly specific for impingement.

- When the history and physical examinations are unclear, diagnostic injection in the subacromial or transforaminal epidural space can be used to isolate the source of pain and predict the outcome of both shoulder and spine surgery.
- In concomitant neck and shoulder pathology, treatment of the shoulder pathology before the spine is reasonable as cervical surgery carries higher risk.
- Alteration in the alignment of the spine changes the mechanics of the shoulder and can increase the incidence of shoulder dysfunction. In a similar fashion, shoulder injury may also alter the mechanics of cervical spine resulting in neck pain.
- Neurological disorders of the cervical spine may predispose individuals to rotator cuff injuries. 🚫

References

1. Urwin M, Symmons D, Allison T, et al. Estimating the burden of musculoskeletal disorders in the community: the comparative prevalence of symptoms at different anatomical sites, and the relation to social deprivation. *Ann Rheum Dis.* 1998;57(11):649-55. doi: 10.1136/ard.57.11.649..
2. Wilson C. Rotator cuff versus cervical spine: making the diagnosis. *Nurse Pract.* 2005;30:44-46, 48-50.
3. Katsuura Y, Bruce J, Taylor S, Gullota L, Kim HJ. Overlapping, masquerading, and causative cervical spine and shoulder pathology: a systematic review. *Global Spine J.* 2020;10(2):195-208. doi: 10.1177/2192568218822536.
4. Sembrano JN, Yson SC, Kanu OC, et al. Neck-shoulder cross-over: how often do neck and shoulder pathology masquerade as each other? *Am J Orthop (Belle Mead NJ).* 2013;42:E76-E80.
5. Sher JS, Uribe JW, Posada A, Murphy BJ, Zlatkin MB. Abnormal findings on magnetic resonance images of asymptomatic shoulders. *J Bone Joint Surg Am.* 1995;77:10-15.
6. Murphy DR, Hurwitz EL. A theoretical model for the development of a diagnosis-based clinical decision rule for the management of patients with spinal pain. *BMC Musculoskelet Disord.* 2007;8:75. doi: 10.1186/1471-2474-8-75
7. Costandi SJ, Azer G, Eshraghi Y, et al. Cervical transforaminal epidural steroid injections: diagnostic and therapeutic value. *Reg Anesth Pain Med.* 2015;40:674-680. doi:10.1097/AAP.0000000000000323
8. Falla D, Bilenkij G, Jull G. Patients with chronic neck pain demonstrate altered patterns of muscle activation during performance of a functional upper limb task. *Spine (Phila Pa 1976).* 2004;29:1436-1440.
9. Cools AM, Witvrouw EE, Declercq GA, Danneels LA, Cambier DC. Scapular muscle recruitment patterns: trapezius muscle latency with and without impingement symptoms. *Am J Sports Med.* 2003;31:542-549.



Triple Bundle

(Dr. Tiw Zhung Shen, Dr. Jimmy Lim Teik Loong & Dr. Chin Siang Leon)

Universiti Malaya

We are grateful to be given a chance to participate in the Post-Grad Quiz Competition at the MAS conference 2023.

It was a great idea to connect the quiz questions to the topics at the conference.

We learned and revised the knowledge throughout the quiz. All the quiz participants gave complete focus during the talks in anticipation of any potential “answers” that could pop up.

In addition, during the final round, the judges gave excellent constructive feedback and we believe the small details which helped inspire some of us to think about pursuing sports/arthroscopic surgery as a career.

Lastly, we would like to express our gratitude to everyone who helped us in our success and we are glad we made them proud. 🙏





Sport-ing Trio

(Dr. Lee Kar Jun, Dr. Tan Yuet Yang & Dr. Swarruben A/L Ravi Chandran)

Universiti Malaya



Thank you MAS ASM 2023 and PPUM for providing the golden opportunity to not only learn from the finest experts in their field, but also enabling us to showcase our knowledge in the first ever quiz competition held by MAS ASM 2023. Proudly stating that a chance given is a chance Sporting-ly taken by the Trio!

Indeed a thrilling and enlightening experience, thank you MAS ASM 2023! 🙌



3 Stooges

Dr. Tan Shihui, Dr. Leong Jie Xiang, Dr. Low Jian Wei

Universiti Malaya



On behalf of the 3 stooges, I would like to express my sincere appreciation to the organizing committee for their meticulous planning and flawless execution of the event. The seamless coordination ensured that the tournament progressed smoothly, allowing participants to focus entirely on the intellectual challenges presented before them. Furthermore, I extend my gratitude to the esteemed panel of judges whose expertise and fairness ensured the integrity of the competition.

The quiz tournament was not only a platform for showcasing knowledge and intellect but also a space for fostering camaraderie and teamwork. We are profoundly grateful for the memories and friendships forged during this extraordinary experience. The level of competition was remarkable, and each moment spent engaging with fellow participants were enriching and rewarding.

To all participants, it is not merely about winning or losing, but about the pursuit of knowledge, the thrill of discovery, and the joy of intellectual growth. Let us carry forward the lessons we have learned, the friendships we have forged, and the memories we have created as we continue on our respective journeys! 🙌

1st Loh Guan Lye Specialists Centre Live Shoulder Instability Surgery Course 2023



By Dr. Soon Chee Khian
Loh Guan Lye Specialists Centre

The 1st Loh Guan Lye Specialists Centre Live Shoulder Instability Surgery Course, officially endorsed by the Malaysian Arthroscopy Society, successfully concluded on December 9, 2023, at the Loh Guan Lye Specialists Centre Auditorium.

Aligned with Loh Guan Lye Specialists Centre's commitment to leadership in the healthcare industry and the delivery of quality healthcare, this Symposium aimed to establish a foundation for excellence and professionalism in Shoulder Arthroscopic Surgery.

The Symposium convened a distinguished assembly of 12 Orthopaedic Surgeons, 10 Physiotherapists, 27 Nurses and 13 Allied healthcare providers, fostering a collaborative environment for knowledge exchange. This gathering served as a platform for healthcare



..... [continue on page 19](#)



professionals to share best practices and engage in enriching discussions.

The moderator of this course, Dr. Chan Wei Heng, an accomplished Orthopedic & Trauma Surgeon and Interventional Pain Management Specialist, skillfully opened the Symposium. He introduced its structure, comprising two sessions with enlightening lectures and practical workshops on live-telecasted Arthroscopic Shoulder Stabilization Surgery to the LSC Auditorium. The Symposium marked a significant step towards advancing the field of Shoulder Arthroscopic Surgery.

Our Organizing Chairman, leading the team, Dr. Soon Chee Khian, a distinguished Orthopaedic, Sports injury & Trauma Surgeon, along with three esteemed speakers

- Associate Prof. Dr. Teo Seow Hui, Maj. Gen. Dato' Dr. Mohammad Amirrudin Bin Hamdan, and Brig. Gen. Dato' Pahlawan Dr. Musa Bin Kasmin - shared their expertise on key topics and offered tips and tricks of Shoulder Arthroscopic Surgery to all participants.

The Symposium's enlightening sessions covered a spectrum of topics, including Shoulder Anatomy and Biomechanics, Management of Shoulder Instability, Arthroscopic Bankart Repair, and the Latarjet procedure. Each lecture was followed by lively Q&A sessions, fostering knowledge exchange and discussions on various options and techniques related to Shoulder Instability.

The live telecast of practical workshop sessions at the LSC Auditorium allowed healthcare professionals to delve into

hands-on learning, expanding their skills and techniques during two actual Shoulder Instability Surgeries. The interactive communication between Dr. Soon Chee Khian and Maj. Gen. Dato' Dr. Mohammad Amirrudin Bin Hamdan added depth to the Symposium, engaging participants in meaningful dialogue and Q&A sessions.

The Symposium concluded with positive feedback from participants, reinforcing its success. Looking ahead, Loh Guan Lye Specialists Centre is excited to host a series of Symposiums covering diverse specialties, continuing its commitment to advancing medical knowledge and professional development. 📍



1st Perak Sports Arthroscopy Cadaveric Course (PSACC) 2023, Ipoh, Perak

By Danial Ruslan

Hospital Raja Permaisuri Bainun, Ipoh

- 2nd August 2023
Symphony Suites Hotel
- 3rd August 2023
UNIKL Anatomy Lab

Last year, the Sports and Arthroscopy Surgery Unit, together with the Sports Medicine Unit and staffs from the Orthopaedic Department of Hospital Raja Permaisuri Bainun (HRPB) Ipoh has successfully organised its first cadaveric workshop. The 2-day knee-pathology themed workshop, supported by Malaysia Orthopaedic Association (MOA), Malaysia Arthroscopy Society (MAS) and its many sponsors was attended by Orthopaedic surgeons of differing seniority level as well as Orthopaedic medical officers from throughout Malaysia.

The main aim of the course was to provide hands-on opportunity to learn and practise knee arthroscopy surgical skills safely through the usage of cadaveric specimens which was limited in Malaysia. The course also aims to improve the knowledge as well to create interest among Orthopaedic fraternity in the field of sports and arthroscopy surgery.

Total of 30 participants attended the 1st day, which was held in the halls of Symphony Suites Hotel. The day 1 course

..... [continue on page 21](#)





comprises of lectures in the morning, practical sessions in the afternoon and booth visits in between, showcasing various implants used in arthroscopy surgery and various post-operative braces and items used in post operative rehabilitation. The day was ended with a dinner held at Royal Perak Gold Club. It was attended by the committee members, faculty members, participants, and sponsors.

The day was ended with a small closing ceremony in which closing speeches were given by the organising committee, certificates were presented to the participants and photography sessions among the sweaty and tired yet smiling faces of everyone present on that day.

This course was a useful and important educational opportunity for the surgeons who manage to attend it as the opportunity for such cadaveric session in Malaysia was limited. Cadaveric hands-on sessions are an important and useful platform for surgeons in any field to learn, test and improve their surgical skills and methods before the perform it to their respective patients. 🙏

Day 2 of the course was the hands-on cadaveric practical surgical session held at UNIKL Anatomy Lab. Only 16 participants were selected to attend the cadaveric session due to limited number of cadavers, as well as to maximise the opportunity of each participant. During the morning session, participants were given the opportunity to perform diagnostic arthroscopy and meniscus procedure while in the afternoon participants did anterior cruciate ligament (ACL) reconstruction. Invited sport surgeons from universities, government and private sectors were on the floor, giving guidance and tips to the participants. Even the hot conditions of the cadaveric lab, unfortunately due to the faulty air-condition systems did not burnt down the enthusiasms of both the participants and the faculty members.





Dr. Kam Ming Long
Hospital Kulim

It was a privilege for me to participate in the Malaysian Arthroscopy Society (MAS) 2023 and to present a poster titled "Another Method of Ankle Fusion". It was about ankle fusion using bamboo hut technique that I learned at Hospital Kulim from my trainer, Dato' Dr. Tharumaraja A/L Thiruselvam.

For years, MAS has been a cutting-edge and wonderful

society where orthopaedic surgeons come together to exchange knowledge and insights. It also provides a broad variety of events, both domestically and globally, such as workshops, conferences, meetings, and seminars.

I would like to express my sincere gratitude to our distinguished arthroscopic surgeon, the late Mr. Sanusi Azni Bin Ab Ghani, for his contributions to this

profession and MAS, as well as for the Sanusi Ghani award. Working with him during my training in Hospital Raja Perempuan Zainab II was a real delight.

I hope that the Sanusi Ghani award will encourage more people in the future to present and impart their knowledge. 🙏



Dr. Shival Tharmaseelan
Universiti Putra Malaysia

Sanusi Ghani Award - A Stepping Stone To Further Growth And Development

The orthopaedic post graduate journey is one that is filled with great potential and possibilities. It provides students like myself not only the platform to pursue greater surgical knowledge and skill but also a pathway towards navigating more complex academia. In this rapidly evolving world of Orthopaedics, always being able to keep abreast with the latest medical literature is an important trait that students like myself ought to develop from the infancy stages of our career.

There has been a greater recognition during recent times for us to not only be in the know of the latest advances in medical field but also to contribute in terms of research to ensure better patient care and outcomes. Medical research often serves as the cornerstone for progress in healthcare that drives innovation and groundbreaking treatments. However, this journey is often fraught with challenges such as the lack of the "know-how", skills and time

for us students who are taking our 'baby' steps in this academic pursuit. I have been fortunate to be guided by Mr. Azamuddin and Mr. Shahril from the Foot and Ankle unit, Universiti Putra Malaysia. Upon receiving the call for abstracts for the MAS 2023 conference, both my mentors had encouraged me to curate a case report regarding a novel technique using 'Chitosan hydrogel scaffold'

..... *continue on page 23*

to treat Osteochondral injury of talus. Upon acceptance of our abstract, they had spent countless hours to train me in terms of presenting the paper and also providing me with required knowledge regarding the subject matter.

The day of reckoning finally arrived on 13th October 2023 and it was certainly an intense battle with my nerves upon learning that the presentation was to be done in front of an esteemed panel of judges and a learned audience. The three minutes that was allotted for the presentation of the paper seemed to tick by at snail's pace as I went through the facts of the

case and attempting to answer the questions posed by the revered judges. Along with me there were seven other equally deserving candidates that came from the length and breadth of our county. It was certainly an eye-opening experience to see how far the field of arthroscopic surgery has come in all corners of our beloved nation.

To my astonishment, when the results were announced I was awarded the first runner up position for the Sanusi Ghani poster presentation award. It

was certainly a moment filled with joy and pride for me as I walked up the stage to receive this distinguished award. I would like to see this award as another small peak ascended as I climb the 'Everest' scaled journey of post-graduation. Small victories like this light the fire in the belly for us young aspiring surgeons to delve further into world of medical research. Hence, kudos to the Malaysian Arthroscopic Society for providing aspirant surgeons with the stage to improve ourselves and giving due recognition where its due.



"The mind is not a vessel to be filled but a fire to be ignited"
~ Plutarch ~



Dr. Khor Jack Kee
Hospital Kuala Lumpur

My Experience And Thought As Sanusi Ghani Award 2nd Runner-up

After passing my master's exam and finally becoming an orthopedic surgeon, many colleagues of mine asked me what I would like to pursue as a subspecialty. To be frank I did not think of doing any subspecialty at that moment. As time goes by, after almost two years as a junior orthopedic specialist, I realized it is time for me to consider pursuing a subspecialty, as the orthopedic field is too wide and impossible to master everything.

I have been working in HKL since 2015, starting as a junior medical officer, and as master students for 2 years. After passing my master's exam, I am back to HKL again for gazettement and started my life here as junior orthopedic specialist. As one of the busiest government hospitals in the nation, HKL orthopedic department has almost all the subspecialties

and I have opportunity to rotate in all the teams as a medical officer and gazettement specialist. As I go through all these rotations, one particular consultant sparked my interest and thought to pursue a subspecialty. She is none other than Ms. Siti Hawa, the consultant of HKL Arthroscopy and Sports Injury Unit. She is a great mentor and teacher to most of the sports surgeons in the country. She dedicated her time in teaching and eagerly shared her presentations on arthroscopic techniques and tricks to ease surgery. Her passion for arthroscopy and unwavering commitment served as a constant source of inspiration.

I am gladful that Ms. Siti allowed me to join her OTs which I can observe varieties of arthroscopic procedures, ranging from simple ACL reconstruction to

more complex multiligament reconstruction. Due to the large number of patients in HKL, it is not uncommon to come across some interesting and rare cases. One such case was a case of neglected posterior shoulder dislocation. I am very lucky to be able to assist Ms. Siti in the surgery and given a chance to write a case report on it. Under her encouragement, I submitted the case report for Sanusi Ghani Award presentation for MAS 2023, and I am humbled to be awarded as Sanusi Ghani Award 2nd Runner Up. Her inspiration has ignited my passion in the field of arthroscopy. As someone junior in this field, I am deeply grateful for her immense patience and benevolence in guiding me. With her unwavering support and encouragement, I will continue to pursue sports and arthroscopy as my subspecialty. 🙏

Needling Away Discomfort: Unveiling the Therapeutic Power Of Dry Needling For Musculoskeletal Problem

By Dr. Norlelawati Binti Mohamad
Hospital Canselor Tuanku Muhriz

Chronic musculoskeletal problems can significantly impact an individual's quality of life as they contribute to persistent pain, reduced mobility and overall discomfort. Recently, dry needling has gained increasing popularity for its ability to relieve pain and improve musculoskeletal functions.

Dry needling is a technique which involves the insertion of solid filiform needles that are used to treat various painful conditions of the musculoskeletal system. Unlike traditional acupuncture, which influences the flow of energy along meridians, dry needling is firmly grounded in a modern anatomy, physiology, and neurology in western medicine principles which focuses on alleviating pain and improving musculoskeletal function.

I commenced my journey into the practice of dry needling at Hospital Canselor Tuanku

Muhriz (HCTM/PPUKM) Orthopaedic Clinic in 2017. As a sports physician, I managed the majority of cases involving musculoskeletal problems that did not require surgical intervention. Recognizing the need for a delicate and targeted intervention in musculoskeletal therapy inspired me to undertake a comprehensive exploration of dry needling. Drawing inspiration from its historical roots to modern applications, I underwent specialised training to refine my skills and ensure the highest standards of patient safety. The integration of dry needling with other intervention modalities available in HCTM/PPUKM is an effort to enhance the therapeutic offerings for individuals grappling with musculoskeletal challenges.

The modern practice of dry needling in the western countries, particularly in the 20th century was initiated by Dr. Janet G. Travell and Dr David G. Simons, American physicians known for their work in pain management. Their significant role in introducing the concept of trigger points led to the foundation and management

of targeted muscle trigger points. These trigger points are a localised area of muscles tightness or hyperirritable spots associated with knots or taut bands within these muscles. These points can cause pain, discomfort, dysfunction and even referred pain to other parts of the body when touched or activated. For example, in a patient with myofascial pain syndrome or an active runner who develops pain in the iliotibial band due to trigger points in the muscles surrounding the hip and thigh, they can present with various symptoms including muscle stiffness, weakness and restricted range of motion. Therefore, by inserting thin, solid needles into these trigger points, it will reduce the tension in the muscles and triggers the natural healing processes. Meanwhile, the term 'dry' refers to the absence of injected substance as opposed to 'wet' needling where medications or substance are introduced into the body through the needle.

The needles utilized in dry needling are carefully designed

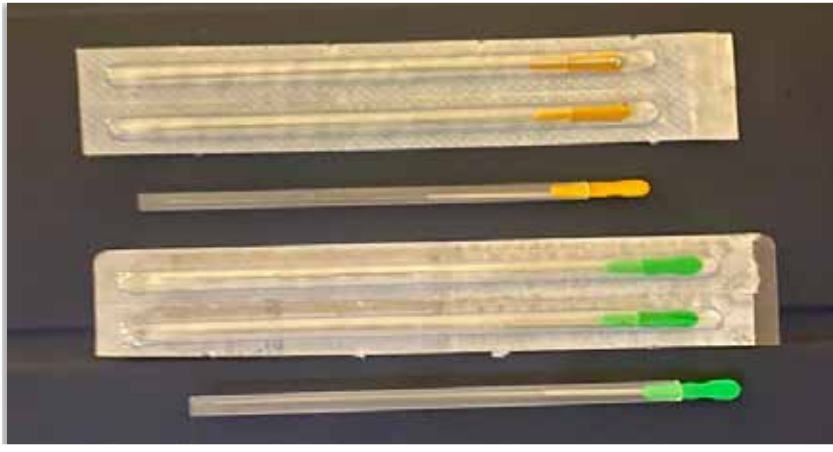
..... [continue on page 25](#)



Group picture with the participants and instructor during Functional Integrated Dry Needling (FIND) Course in Kuala Lumpur, April 2017



Dry needling demonstration for rotator cuff shoulder problem



Needles are individually sterile-packaged with various lengths and gauges.

to prioritize precision and safety in therapeutic procedures. Resembling acupuncture needles, they are thin and solid, much finer than those used for injections thus enabling accurate insertion into specific anatomical structures like trigger points or myofascial tissues. With various lengths and gauges available, practitioners can tailor their choice based on treatment goals and tissue depth. Designed for single-use to meet strict hygiene standards, these needles are individually sterile-packaged, minimizing the risk of cross-contamination. Overall, these needles showcase flexibility, springiness, and a sharp yet smooth tip, emphasizing the commitment to safety, efficacy, and patient comfort in the practice of dry needling.

The primary goal of dry needling is to stimulate the trigger points, causing a localized twitch response in the muscle. This twitch response is believed to lead to a cascade of biochemical and physiological changes, promoting muscles relaxation and improved blood flow. These responses contribute to the overall therapeutic effects of dry needling. However, the exact mechanism of action of dry needling in reducing musculoskeletal (MSK) pain remains a subject of ongoing investigation, and various theories have been proposed to

elucidate its effects. While more research is needed to establish definitive mechanisms, several hypotheses and observations have emerged based on existing studies and clinical experiences. One prominent theory suggests that the insertion of thin needles into trigger points or myofascial tissues may lead to the release of local biochemicals, such as endorphins and other neurotransmitters, which can contribute to pain modulation and the alleviation of discomfort. Additionally, the mechanical stimulation from the needle insertion may disrupt dysfunctional muscle fibres, promoting muscle relaxation and improved blood circulation. Another proposed mechanism involves the interruption of the pain cycle by affecting

nerve signals and reducing sensitization of peripheral nerves. Although these theories offer plausible explanations, the complex interplay of physiological responses to dry needling warrants further exploration. Advancements in research methodologies and continued clinical investigations are essential for gaining a more comprehensive understanding of how dry needling exerts its therapeutic effects on musculoskeletal pain.

In my clinical practice, incorporating dry needling as a therapeutic intervention for musculoskeletal patients has proven to be a transformative and highly effective approach. The precision and targeted nature of this technique has allowed for an understanding and treatment of muscular tension and dysfunction. One notable case involved a patient with chronic lower back pain, where traditional treatments yielded limited relief. Introducing dry needling into the treatment plan resulted in a remarkable reduction in pain and improved functional outcomes. Dry needling is often used as an adjunct therapy alongside other physical therapy modalities. It can be combined with techniques such as manual

..... [continue on page 26](#)



Dry needling for trigger points over the right shoulder following 1 year history of clavicle fracture.

↓ Clinical photos of a left knee with extension lag due to hamstring tightness.



Post dry needling clinical photos showing left knee able to achieve full extension. →

therapy, exercise, and stretching to provide a comprehensive approach to pain management and functional improvement. By addressing specific muscular and myofascial issues, dry needling can enhance the effectiveness of other therapies and help individuals achieve better outcomes. The indications for dry needling in musculoskeletal problems are diverse and encompass a broad spectrum of conditions marked by pain, dysfunction, and muscular imbalances. One prominent indication for the use of dry needling is in the management of myofascial pain syndrome. The technique aims to unravel the knots of tension, providing a pathway to alleviating pain and restoring optimal muscle function. In cases of shoulder issues, such as rotator cuff injuries or adhesive capsulitis, dry needling aims to target trigger points and release tension in the surrounding muscles, promoting improved range of motion and reducing pain. Joint pain and dysfunction, common facets of various musculoskeletal problems, also stand as arenas where dry needling can play a supportive role. By addressing the muscular components contributing to joint issues, the technique aims to enhance

joint mobility and alleviate pain, working synergistically with other interventions such as physical therapy.

Within the sphere of sports injuries and rehabilitation, dry needling can be integrated into a comprehensive rehabilitation plan. It aids in reducing pain, fostering tissue healing, and restoring functional movement, thereby proving its worth as a valuable tool in sports medicine. Neck and shoulder pain, stemming from factors such as poor posture, stress, or muscular imbalances, forms another landscape where dry needling can make an impact. The technique seeks to address trigger points in these areas, aiming to release tension and enhance overall comfort. In the realm of occupational or activity-related repetitive strain injuries, where muscular imbalances and trigger points often play a role, dry needling can be woven into a tailored rehabilitation plan. Its role here is to assist in addressing these imbalances and promoting recovery, contributing to a holistic approach to injury management. It is essential to recognize that while there is some positive evidence supporting the use of dry needling in chronic musculoskeletal pain, further

research is needed to establish its effectiveness consistently across different conditions. Additionally, individual responses to dry needling can vary, and the treatment may be more effective when combined with other therapeutic approaches.

The evidence supporting the use of dry needling in managing chronic musculoskeletal pain encompasses a range of conditions. Studies have specifically highlighted its efficacy in addressing trigger points associated with Myofascial Pain Syndrome, offering relief to individuals experiencing persistent muscle tightness and discomfort. Additionally, research indicates that dry needling may contribute to improved pain thresholds and reduced tender points in individuals diagnosed with fibromyalgia, presenting a potential adjunctive therapy for this complex condition. Clinical trials focusing on chronic lower back pain have shown promising results, with findings indicating significant reductions in pain intensity and disability levels following dry needling interventions. Although the evidence regarding

..... continue on page 27

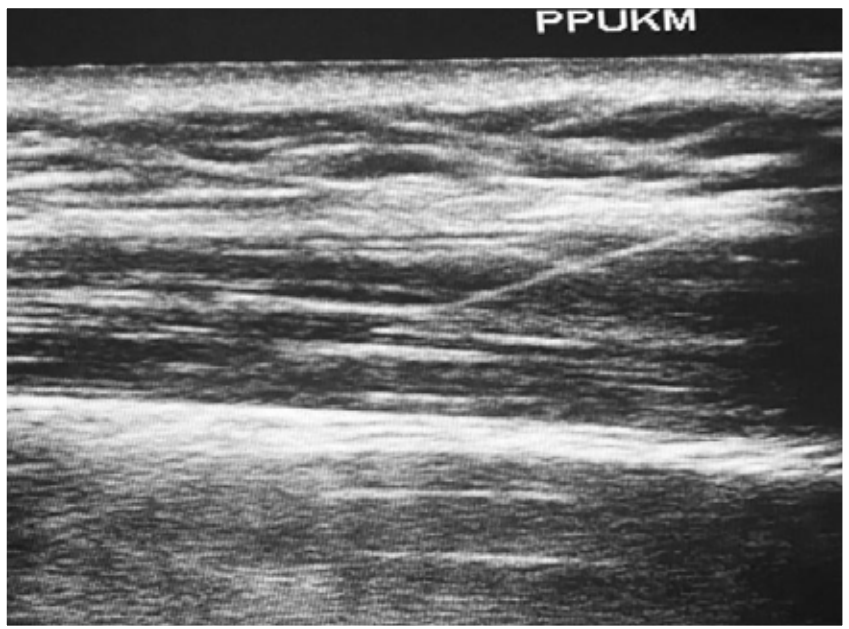
osteoarthritis is still evolving, some studies suggest that dry needling may positively impact pain and functional outcomes in individuals with osteoarthritis, particularly when integrated into a comprehensive treatment plan.

While dry needling is generally considered safe when performed by trained and qualified healthcare professionals, like any medical intervention, it may carry some risks and potential side effects. Reported adverse events and side effects associated with dry needling encompass a spectrum of temporary and generally mild reactions. One common occurrence is soreness at the needle insertion sites, which is transient and typically resolves without intervention. During the treatment itself, patients may experience discomfort or brief pain as needles are inserted into trigger points, although this sensation is usually short-lived and deemed tolerable by many individuals. Some patients may report feelings of fatigue or light-headedness post-dry needling, possibly linked to the body's response to the treatment. In such cases, patients are advised to rest and rehydrate to alleviate these symptoms. Another potential side effect is a temporary worsening of symptoms, often referred to as "post-treatment soreness," which tends to be short-lived about two to three days.

Ultrasound-guided dry needling represents an advanced and innovative approach that integrates the accuracy of ultrasound imaging with the therapeutic benefits of dry needling. This technique

enables healthcare providers to visually identify and precisely target specific muscles, nerves, or other anatomical structures in real-time. The use of ultrasound guidance enhances the accuracy and safety of the dry needling procedure, minimizing the risk of unintended needle insertion into critical and vital structures. By providing a dynamic and detailed view of the targeted area, healthcare practitioners can optimize needle placement, ensuring that the treatment is directed precisely at the intended trigger points or myofascial structures. This method is particularly beneficial in challenging or deep-seated anatomical regions where accuracy is paramount. The integration of ultrasound guidance into dry needling practices reflects a commitment to advancing the precision and efficacy of musculoskeletal interventions, offering a valuable tool for healthcare professionals in the pursuit of optimal patient outcomes.

In conclusion, incorporating dry needling into musculoskeletal pain management proves to be a valuable and evolving treatment option. With its roots in anatomical precision and therapeutic efficacy, dry needling, particularly when guided by ultrasound, offers a targeted approach to alleviate pain and enhance overall musculoskeletal function. Its integration into comprehensive treatment plans showcases a commitment to advancing patient care. While ongoing research is essential for a deeper understanding of its mechanisms, more current evidence required to support the benefits of dry needling as an effective tool in the hands of skilled healthcare practitioners. As part of a multifaceted treatment strategy, dry needling stands as a promising modality in the realm of musculoskeletal pain relief. 📌



Ultrasound-guided dry needling image of upper trapezius muscles in patient with trapezius strain and tightness

References

1. Dunning J, Butts R, Mourad F, Young I, Flannagan S, Perreault T. Dry needling: a literature review with implications for clinical practice guidelines. *Phys Ther Rev.* 2014;19(4):252-265. doi:10.1179/108331913X13844245102034
2. Kietrys DM, Palombaro KM, Azzaretto E, Hubler R, Schaller B, Schluskel JM, Tucker M. Effectiveness of dry needling for upper-quarter myofascial pain: a systematic review and meta-analysis. *J Orthop Sports Phys Ther.* 2013 Sep;43(9):620-34. doi: 10.2519/jospt.2013.4668. PMID: 23756457.
3. Gan YN, Junaidah S. Executive Summary: Dry Needling versus Acupuncture for the Management of Musculoskeletal Pain. Executive Summary. 2019 <http://www.moh.gov.my>

BECOME A MAS MEMBER



WHY?

- ✓ Discounted registration fees to the MAS Annual Scientific Meeting
- ✓ Subscription to the MAS Newsletter & E-News
- ✓ Opportunity to participate in MAS Approved Teaching Centers and Approved Courses
- ✓ Opportunity to serve as an MAS Committee Member
- ✓ Eligible for study, research and fellowship grants

MEMBERSHIP

Ordinary: Surgeons practicing in Malaysia who have an exclusive interest in arthroscopy and related surgery AND have obtained a post-graduate qualification in surgery and have undergone a training programme in orthopaedic surgery.

Associate: Medical graduates who are undergoing training programmes in orthopaedic surgery, surgeons or physicians who maintain a continuous interest in arthroscopy and related surgery while practising in a closely allied specialty and those practising other non-allied medical sciences but have a keen interest in arthroscopy and related surgery

MEMBERSHIP FEES

Ordinary RM100/year
Associate RM50/year
Life RM1,000

Entrance fee RM50/-

Website: https://www.my-arthroscopy.com/member_register.php

REGISTER NOW!



Contact Us



Malaysian Arthroscopy Society (MAS)



secretariat@my-arthroscopy.com



www.my-arthroscopy.com

Members are welcome to share ideas, suggestions and insights for our society via email to the secretariat.

