

Webinar on Osteoporosis, Arthritis and Musculoskeletal Disorders

June 15, 2022 | Webinar

Scientific Tracks & Abstracts



Sessions

Musculoskeletal Disorder | Orthopaedic Trauma | Orthopedics Surgery

Session Introduction

Title: **Low back pain and sciatica in over 16s: Assessment and management (NG59)**

Adeel Nawab Ditta, Milton Keynes University Hospital, UK

Title: **Evaluation of a one-stop shoulder clinic**

Bhavika Patel, Airedale NHS Foundation Trust, UK

Title: **Evaluation of modern treatment methods of lateral ligaments of the ankle injuries**

Godsfavour Chukwemeka Maduka, Lister Hospital, East and North Hertfordshire NHS Trust, UK

Webinar on

OSTEOPOROSIS, ARTHRITIS AND MUSCULOSKELETAL DISORDERS

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Low back pain and sciatica in over 16s: Assessment and management (NG59)

Adeel Nawab Ditta

Milton Keynes University Hospital, UK

One of the greatest challenges with low back pain is identifying risk factors that may predict when a single back pain episode will become a long-term, persistent pain condition. When this happens, quality of life is often very low and healthcare resource use high. The health, social and economic burden of low back pain is well documented.

The audit had a distinctive objective to establish the extent to which our current practice complied with the validated NICE guidelines. Identifying risk factors that may predict when a single back pain episode will become a long term, persistent pain condition leading to quality of life often very low and healthcare resource use high

The data was collected through hospital records and E-care. The nature of the audit was a retrospective study. Patient data was further filtered based on the age group along with patients with clinical diagnosis of any acute spinal issues requiring treatment/management or back pain associated with any other ongoing medical/surgical issues. Different parameters of the current NICE guidelines for Low back pain and Sciatica in over 16s, Assessment and management were reviewed, and the extent of compliance evaluated with the current practice at MKUH.

NICE GUIDELINES	Results
1. Risk Stratification evaluated	0/42
2. Exercise program offered	10/42
3. Manual therapy offered	1/42
4. Psychological therapy offered	0/42
5. Facilitated/encouraged return to work or normal activities	1/42

There was a clear lack in compliance with the NICE guidelines. A lack of awareness regarding the NICE guidelines and the risk stratification tool was observed amongst the doctors. Based on the audit results several recommendations were made. Revision of Back pain leaflet and making sure leaflet is handed over on discharge. There was also a recommendation to develop a QR based format for the back pain leaflet. Involve Physiotherapy to facilitate the smooth running of the pathway with provision to referral to psychology and pain team as necessary. Working with GP's to create a multi team approach including coordination between GP, surgeries, hospital, physiotherapy & pain team.

Recent Publications:

1. Ali Amjad*, Ahmed Tarek Hafez, Adeel Nawab Ditta, and Waqar Jan. Synovial Pit of the femoral neck: a rare disease with rare presentations. Journal of Surgical Case Reports, 2020;6, 1–4
2. Butt A J, Zain-ur-Rehman M*, Tarek A, Ditta A N and Amjad A. Bariatric Orthopaedics: Impact of Obesity on Total Knee Replacement. EC Orthopaedics 11.10 (2020): 32-38
3. Maged Mohamed Mostafa. Locked Plating for Distal Femur Fractures, Is it a Good Option? Acta Scientific Orthopaedics 3.9 (2020): 10-17

Biography

Adeel is a gold medalist graduate with interest in Orthopedic Surgery along with medical education & International medicine. He is aspiring Orthopedic trainee with interest in sports medicine. He has been involved in multiple projects from days of medical school with a wide variety of projects from descriptive studies to national multi center-trials. Currently, he is leading quality improvement project in his trust aiming to conduct national levels multi center two arm trials to formulate standard guideline.

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Evaluation of a one-stop shoulder clinic

Bhavika Patel, Saadia Khan, Abhishek Das, David Bowe and James Tyler

Airedale NHS Foundation Trust, UK

Objectives: To evaluate the benefit of introducing a “one-stop” shoulder clinic involving orthopaedic, radiology and physiotherapy services, in terms of time and money saved.

Methods: A genuine one-stop service was introduced combining the services of two orthopaedic consultants, two orthopaedic middle grade doctors/advanced physiotherapy practitioner, one musculoskeletal radiology consultant, and two general physiotherapists. The service allows for clinical and radiological evaluation, ultrasound-guided procedures (including suprascapular nerve blocks), and specialist physiotherapy. It was provisioned in one large clinical area with multiple patient cubicles.

Patients were initially consulted by the orthopaedic team, and most received an ultrasound scan with or without an ultrasound-guided injection, performed by the radiology team. Patients were then consulted again by the orthopaedic team or advanced physiotherapy practitioner, and a rehabilitation programme was commenced as indicated.

Patient attendee numbers and hospital attendances saved were collected prospectively. Costs were calculated using figures generated from the hospital's finance department.

Results: Between October 2020 and October 2021, a total of 338 patients were seen. Compared to initial presentation, the EQ-5D Visual Analogue Scale (VAS) for pain improved on average by 12.1 points, and the EQ-5D VAS for general health improved by 4.8 points at one year. There was also an average improvement of the EQ-5D-5L health index by 0.08 after one year. Five hundred and nine future appointments were saved. An overall cost saving of £198.12 per patient was estimated, which includes cost of ultrasound scan of the shoulder, physiotherapy attendance and outpatient follow up. There was an average improvement of 8.9 points of the Oxford Shoulder Score after one year.

Conclusion: The one stop shoulder clinic has streamlined the elective shoulder service, reduced hospital attendances, and saved considerable costs during the COVID-19 pandemic.

Recent publications:

Patel B, Aqil A, Riaz O, Jeffers R, Dickson D. The 2nd metacarpal cortical index as a simple screening tool for osteopenia. *J Bone Metab.* 2020;27(4):261-266. doi:10.11005/JBM.2020.27.4.261

Biography

Bhavika is a Specialty Doctor working in Trauma and Orthopaedics in Airedale General Hospital, West Yorkshire, United Kingdom. She has a particular interest in upper limb surgery and is previously published in the *Journal of Bone Metabolism*. She has given podium presentations at conferences for the British Society of Surgery of the Hand (BSSH), International Federation of Societies for Surgery of the Hand (IFSSH) and British Orthopaedic Research Society (BORS). She has also delivered poster presentations at the Association of General Surgeons Great Britain (ASGBI), Association of Surgeons in Training (ASiT) and the Fitton Prize Meeting.

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Evaluation of modern treatment methods of lateral ligaments of the ankle injuries

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Background: Lateral ligaments of the ankle injuries (sprains/tears) are known to be among the most common sports-related injuries. These injuries account for a significant amount of all sports-related injuries with almost all injuries arising due to damage of the Anterior talofibular ligament (ATFL) or Calcaneofibular ligament (CFL). Although relatively benign injuries, inadequate treatment and rehabilitation can lead to residual symptoms in many patients after 6 weeks to 18 months.

Aims: To evaluate the methods and strategies currently in use to treat injuries to the lateral ligaments of the ankle by exploring their effectiveness and variations of treatment in connection with trauma mechanisms and injury severity.

Method: Analytical literature review study and researching a wide spectrum of internet databases, orthopaedic journals, articles, books, and e-books mainly from PubMed registry, NCBI and UpToDate which define, outline, evaluate and discuss the topic, facilitating the drawing of a well-reasoned conclusion about the methods in use to treat injuries of the lateral ligaments of the ankle complex.

Results: Early and efficient initial treatment with supportive pain control, limited immobilization, early return to weight bearing and range of motion, and directed physical therapy is most effective in treatment of minor grade sprains and for preventing recurrent injury. Surgical reconstruction of the lateral ligaments is most effective for patients with high grade sprains, continued instability, and dysfunction despite physical therapy. Athletes with a history of an ankle sprain should be prophylactically braced or taped to reduce risk of recurrent injury and improve performance and functionality.

Conclusion: The current methods of treatment all have merit as they all show positive post treatment results. The effectiveness and efficiency of treatment varies depending on the specific injury and the individual who sustained the injury, these must be considered when deciding on the treatment method.



Figure 2.5.1.8. Percutaneous anatomic reconstruction of the lateral ligaments of the ankle with a Tightrope system
<https://sogacot.org/a-new-minimally-invasive-method-for-anatomic-reconstruction-of-the-lateral-ankle-ligaments-with-a-tightrope-system/>

References

- 1.) Cottom JM, Baker, JS, Richardson PE. The “all inside” arthroscopic Broström procedure augmented with a proximal suture anchor augmentation: A prospective study of 45 consecutive patients. *J Foot Ankle Surg.* 2016; 55(6): 1223-1228
- 2.) A Closer Look at A Minimally Invasive Approach To Lateral Ankle Repair. June 19, 2017. Volume 30 - Issue 7 - July 2017. Pages: 60-64. James M.
- 3.) Kerkhoffs GM, Handoll HH, de Bie R, Rowe BH, Struijs PA. Surgical versus conservative treatment for acute injuries of the lateral ligament complex of the ankle in adults. *Cochrane Database Syst Rev.* 2007 Apr 18;(2):CD000380. doi: 10.1002/14651858.CD000380.pub2. PMID: 17443501.
- 4.) Porter M, Shadbolt B, Stuart R. Primary ankle ligament augmentation versus modified Brostrom-Gould procedure: a 2-year randomized controlled trial. *ANZ J Surg.* 2015; 85:44–8
- 5.) Cao, Y., Hong, Y., Xu, Y. et al. Surgical management of chronic lateral ankle instability: a meta-analysis. *J Orthop Surg Res* 13, 159 (2018)
- 6.) D’Hooghe, P., Cruz, F. & Alkhelaifi, K. Return to Play After a Lateral Ligament Ankle Sprain. *Curr Rev Musculoskelet Med* 13, 281–288 (2020).

Biography

Godsfavour Maduka MD is a graduate of the Riga Stradins University medical school where he received prizes for excellent academic progress. He has completed a 4-month internship in Trauma and orthopedics surgery at the National trauma and orthopedics hospital and an 8-month internship at the Paul Stradins clinical university hospital in both Anaesthesiology and Endocrinology. Over the past year Dr Maduka MD has completed a Clinical fellowship at The Lister hospital East and North Hertfordshire NHS Trust in General and Vascular surgery and is currently completing a 4-month clinical fellowship in Gastroenterology. He is actively involved in Surgical clinical Audits and quality improvement research projects to produce improvements in patient results and satisfaction. He has a keen interest in clinical education and teaching and has been heavily involved in developing and delivering teaching programmes for Physician associate students and medical students.

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Sessions

Orthopaedic Trauma | Orthopedics | Physiotherapy and Pain Management | COVID-19

Session Introduction

- Title:** **Triceps tendon avulsion: A case study to often missed and exceedingly rare diagnosis**
Kristo Qylafi, Guy's and St Thomas' Hospital NHS Foundation Trust, UK
- Title:** **Compliance of venous thromboembolism (VTE) prophylaxis in elective hip replacements and hip fractures**
Nitish Raj, Medway NHS Foundation Trust, UK
- Title:** **Ultrasonographic and electrophysiological outcomes of carpal tunnel syndrome treated with low-level laser therapy: A prospective randomized sham-controlled double-blind study**
Oya Umit Yemisci, Baskent University Faculty of Medicine, Turkey
- Title:** **Histopathological alterations of enterocytes in a patient co-infected with severe acute respiratory syndrome coronavirus 2 and mycobacterium tuberculosis. A case study**
Rana S AL-Zaidi, King Faisal Hospital, Makkah, Kingdom of Saudi Arabia
- Title:** **Addressing the gaps in bone health through a holistic approach**
Shunmukha Priya S, Institute of Nutrition and Fitness Sciences, India
- Title:** **Hidden hunger among women - A cause for osteoporosis**
Zainab Cutlerywala, Institute of Nutrition and Fitness Sciences, India
- Title:** **VDR gene and bone mass**
Massimo Piracci, Czech Rehabilitation Hospital Al Ain, UAE
- Title:** **Outcome of delayed internal fixation of distal radius fractures**
Rodolfo B Garcia III, Philippine Orthopedic Center, Philippines

Webinar on

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Triceps tendon avulsion: A case study to often missed and exceedingly rare diagnosis

Kristo Qylafi

Guy's and St Thomas' Hospital NHS Foundation Trust, UK

Triceps tendon rupture is a rare injury that accounts for fewer than 1% of all upper-extremity tendon injuries. Although ruptures at the musculotendinous junction have been observed, the osseo-tendinous insertion in the olecranon is the most prevalent site. Trauma is the most common cause of triceps tendon rupture; however, several systemic concomitant disorders such as Marfan syndrome, hyperparathyroidism, osteogenesis imperfecta, systemic lupus erythematosus, or individuals on steroids can also result in rupture owing to decreased tensile strength. This injury is most common in middle-aged males, but cases have been reported in people of all ages, including youngsters prior to epiphyseal fusion and the elderly. Because of their rarity, such injuries are commonly overlooked and should be considered as a differential diagnosis in all patients who report with pain and swelling at the back of the elbow following a traumatic event.

Method: A 31-year-old man arrived with pain and swelling in his left elbow after falling from a height of 2 metres and catching his elbow under his body while bouldering. The left elbow was tender on clinical examination, with minimal swelling at the triceps insertion and no discernible gap, and active flexion and extension of the afflicted elbow were painful. The characteristic flake sign on lateral elbow radiography indicated acute triceps tendon rupture. The location of rupture was exposed through a posterior midline incision, and the flake of bone with the triceps tendon was repaired using the Krakow procedure, which consisted of a 4-strand No.2 Ethibond suture achieving satisfactory result.

Conclusion & Significance: The summary emphasises the significance and necessity of a comprehensive evaluation because triceps rupture is an uncommon injury and classical clinical signs may not always be present. A strong index of suspicion, physical examination for a palpable gap, and lateral radiographs with a "flake" fracture will help in diagnosis. These injuries are usually overlooked in a typical accident and emergency scenario, and delayed surgical therapy results in long-term functional disability. Hence, a thorough radiological and repeat clinical examination is warranted in doubtful scenarios. Early identification of these injuries and prompt surgical intervention are the cornerstones of a successful functional outcome and good rehabilitation.



Recent Publications

1. Sharma, Pulak et al. "Triceps tendon avulsion: a rare injury." Ethiopian journal of health sciences vol. 24,1 (2014): 97-9.
2. Mirzayan R., Acevedo D.C., Sodl J.F. Operative management of acute triceps tendon ruptures: review of 184 cases. Am J Sports Med. 2018; 46:1451–1458.
3. Tagliafico A., Gandolfo N., Michaud J. Ultrasound demonstration of distal triceps tendon tears. Eur J Radiol. 2012; 81:1207–1210.
4. Meena U.K., Sharma A.K., Behera P. Triceps tendon avulsion in an army recruit: a case report. J Trauma Treat. 2015; 4:255.
5. Barco R., Sánchez P., Morrey M.E. The distal triceps tendon insertional anatomy-implications for surgery. JSES Open Access. 2017;1:98–103

Biography

Kristo Qylafi, graduated as MBBS from Athens Medical University in 2017. He served as a military physician for 1 year and afterwards he worked for 2 years in A&E department of numerous hospitals throughout the country's rural areas. He currently works as a SHO in the Orthopaedic department at Guy's and St Thomas' Hospital.

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Compliance of venous thromboembolism (VTE) prophylaxis in elective hip replacements and hip fractures

Nitish Raj

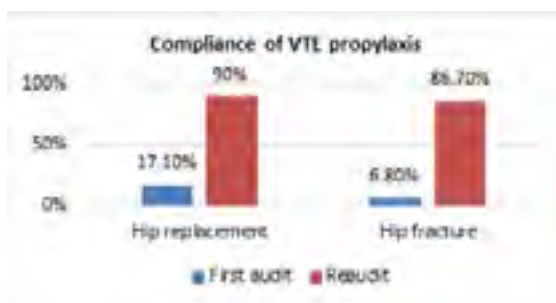
Medway NHS Foundation Trust, UK

Statement of the Problem: VTE is a common complication after orthopaedic surgery.[1] An estimated 25,000 people in the UK die every year from preventable hospital required VTE.[2] Without pharmacologic thromboprophylaxis the rates of Deep vein thrombosis detected with routine contrast venography were in order of 54% after total hip arthroplasty.[3] Symptomatic VTE incidence was found to be between 2-3% after total hip arthroplasty without pharmacologic prophylaxis in one study.[4] Hence, it is recommended by the NICE guidelines to offer chemical prophylaxis for elective hip replacement with 28-days Low Molecular Weight Heparin (LMWH) or 10-days LMWH with further 28-days of aspirin; and for fragility hip fractures with 1 month of LMWH or fondaparinux as per March 2018 update[2], the duration of which is less than previous 35-days protocol, which was being followed in Medway NHS Foundation Trust.

Methodology & Theoretical Orientation: Following a retrospective audit from January to March 2021 where patient's ≥ 18 years of age with fragility fractures of hip and elective hip replacements with risk of VTE outweighing risk of bleeding were taken into study, an intervention was made via presentation of findings in clinical governance meetings. Then a reaudit was done in first three months of 2022 to assess improvements.

Findings: All patients in the sample received the chemical thromboprophylaxis. Compliance of VTE chemical prophylaxis was only 6.8% in hip fractures which improved to 86.7% after intervention and was only 17.1% which improved to 90% after intervention.

Conclusion & Significance: Chemical thromboprophylaxis is essential as primary prevention to reduce the incidence of VTE.[5] Old guidelines were followed prior to intervention, with improvement adhering to the newer guidelines has shown to reduce the duration of chemical prophylaxis with potential to reduce cost, reduction in risk of excessive anticoagulation and efficient use of NHS staffing and resources



Recent Publications

- [1] J. Edelsberg, D. Ollendorf, and G. Oster, "Venous thromboembolism following major orthopedic surgery: Review of epidemiology and economics," *American Journal of Health-System Pharmacy*, vol. 58, no. suppl_2, pp. S4–S13, Nov. 2001, doi: 10.1093/ajhp/58.suppl_2.S4.
- [2] M. F. G. Greig, S. B. Rochow, M. A. Crilly, and A. A. Mangoni, "Routine pharmacological venous thromboembolism prophylaxis in frail older hospitalised patients: where is the evidence?," *Age and Ageing*, vol. 42, no. 4, pp. 428–434, Jul. 2013, doi: 10.1093/ageing/afp041.
- [3] W. H. Geerts et al., "Prevention of Venous Thromboembolism," *CHEST*, vol. 119, no. 1, pp. 132S–175S, Jan. 2001, doi: 10.1378/chest.119.1_suppl.132S.
- [4] Warwick D, Williams MH, Bannister GC. Death and thromboembolic disease after total hip replacement. A series of 1162 cases with no routine chemical prophylaxis. *J Bone Joint Surg Br.* 1995;77:6–10.
- [5] S. Granziera and A. T. Cohen, "VTE primary prevention, including hospitalised medical and orthopaedic surgical patients," *Thromb Haemost*, vol. 113, no. 06, pp. 1216–1223, Nov. 2015, doi: 10.1160/TH14-10-0823

Biography

Nitish Raj has completed his MBBS from Tribhuvan University from Nepal. He has been academically active since his medical school showing outstanding performance. He has been an integral part of organizing Basic Science Olympiad in Nepalese Army Institute of Health Sciences from 2012 to 2019 as Student Ambassador for Elsevier. After registration with the General Medical Council of the United Kingdom in 2019, he has served the prestigious NHS with clinical experience in Trauma and Orthopaedics as well as General Surgical Department. Having has a special interest to develop a career in Trauma radiology and Intervention Radiology.

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Ultrasonographic and electrophysiological outcomes of carpal tunnel syndrome treated with low-level laser therapy: A prospective randomized sham-controlled double-blind study

Oya Umit Yemisci

Baskent University Faculty of Medicine, Turkey

Objective: Low-level laser therapy (LLLT) is a physical therapy modality used in the conventional, non-surgical treatment of mild to moderate CTS and studies have both proven and disproven LLLT as an effective treatment modality. Purpose of this study was to investigate the therapeutic effects of LLLT on clinical, ultrasonographic and electrophysiological findings in CTS.

Materials and methods: Forty-two patients with mild to moderate CTS were randomly assigned to one of two groups; active LLLT (therapy group, n=22) 0.8 Joule/painful point and sham LLLT groups (n=20). Both groups wore neutral wrist orthoses. Patients were evaluated before and after 15 sessions of therapy (670nm, 4 Joule/session over the carpal tunnel). Follow-up parameters included the Boston Carpal Tunnel Syndrome Questionnaire Symptom Severity Scale (SSS), Functional Status Scale (FSS), nerve conduction studies and ultrasound (US) evaluation of the median nerve cross-sectional area (CSA), vascularisation (via power doppler), flattening ratio (FR) and palmar bowing of the flexor retinaculum.

Results: Night paresthesia improved in both groups however, pain and patients with a positive Phalen's test reduced only in the therapy group (p=0.031 and p=0.031 respectively). FSS and SSS scores also improved only in the therapy group (p<0.001). Electrophysiologically, median sensory nerve conduction velocities showed significant improvement only in the therapy group (p=0.008). Furthermore CSA, FR and vascularisation of the median nerve showed significant improvement in the therapy group alone (p<0.001, 0.048 and 0.021 respectively).

Conclusions: Improvements in the signs and symptoms of CTS as well as hand function, alongside improvements in sensory nerve conduction studies and reduction in median nerve CSA, FR and vascularity in the LLLT group, may be attributed to the anti-inflammatory and analgesic effects of LLLT. This study provides new ultrasonographic data demonstrating efficacy of LLLT together with clinical and electrophysiological improvement. LLLT may be considered as an easily applied, non-invasive treatment option.

Recent Publications

1. Werner RA, Andary M. Carpal tunnel syndrome: Pathophysiology and clinical neurophysiology. *Clin Neurophysiol* 2002;113:1373-81.
2. MacDermid JC, Wessel J. Clinical diagnosis of carpal tunnel syndrome: A systematic review. *J Hand Ther* 2004;17:309-19.
3. McDonagh C, Alexander M, Kane D. The role of ultrasound in the diagnosis and management of carpal tunnel syndrome: A new paradigm. *Rheumatology (Oxford)* 2015; 54:9-19.
4. Cartwright MS, Hobson-Webb LD, Boon AJ, Alter KE, Hunt CH, Flores VH, et al. Evidencebased guideline: Neuromuscular ultrasound for the diagnosis of carpal tunnel syndrome. *Muscle Nerve* 2012;46:287-93.

Biography

Oya Umit Yemisci, MD is a Professor of Physical Medicine and Rehabilitation, and is currently working at the Department of Physical Medicine and Rehabilitation, Baskent University Hospital, Ankara, Turkey. She is actively involved in education, residency training, research and clinical treatment at the inpatient rehabilitation hospital especially in the field of musculoskeletal disorders, arthritis, osteoporosis, rehabilitation medicine including cerebrovascular events and spinal cord injury. She is also currently performing electrodiagnosis and involved in research and residency training at the electroneuromyography (ENMG) laboratory.

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Histopathological alterations of enterocytes in a patient co-infected with severe acute respiratory syndrome coronavirus 2 and mycobacterium tuberculosis. A case study

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The ongoing novel coronavirus disease 2019 (COVID-19) is principally defined by its respiratory symptoms. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) can affect the gastrointestinal tract (GIT) and although the pathogenesis of COVID-19 is understood, the exact pathological alterations following infection require further investigation. Here, we report our histopathological findings from a right hemicolectomy specimen from a patient coinfecting with COVID-19 and Mycobacterium tuberculosis. Our observations showed that the novel SARS-CoV-2 can affect the GIT, causing epithelial injury and pathological alterations attributed to its ability to infect absorptive enterocytes by interacting with the angiotensin converting enzyme-2 (ACE2) receptor. These pathological findings are regarded as viral cytopathic changes and should be considered when evaluating gastrointestinal specimens from COVID-19-infected patients.

Recent Publications

- 1) Rana al Zaidi. (2022), Eccrine Angiomatous Hamartoma With Arteriovenous Malformation: A Rare Entity Re-Explored; Cureus 14(3).
- 2) Rana al Zaidi, et.al.(2022), Peculiar Histopathological Alterations of Enterocytes in a Patient Co-Infected with Severe Acute Respiratory Syndrome Coronavirus 2 and Mycobacterium Tuberculosis: A Case Study, Gastrointest Dig Sys; 11:10.
- 3) Rana al Zaidi, Khalid M Alqurashi, Rani Alsairafi, Fahad M Alkhuzaei, et.al.(2021), Panniculitis Ossificans in Posterior Knee: An Unusual Presentation, Cureus 13(11).

Biography

I'm a pathologist interested in bone and soft tissue pathology, GIT pathology, and hematopathology. I've published papers on topics related to GIT pathology, dermatopathology, soft tissue pathology, hematopathology, and neuropathology.

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Addressing the gaps in bone health through a holistic approach

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Statement of the Problem: People are getting health conscious, aiming to lose weight, manage NCDs, improve mass muscle and reduce fat and so on. Moreover, illness related to bone is drawing attention. There are incidences of fractures, osteoporosis, osteomalacia and the list is going on. Factors such as genetics, physiological, socioeconomic, nutritional, physical activity, physiological status, and environmental factors may affect bone health. At present, there is a gap in the management of bone health. The present study focuses on addressing the gaps in bone health through a holistic approach.

Methodology & Theoretical Orientation: The literature search was carried out using the keywords “bone health, osteoporosis, fractures, lifestyle approaches” among the databases such as PubMed, Medline, and Web of Science. Only human studies were considered for the present work. The theoretical orientation of the study is as follows:

- Global Prevalence of Bone diseases
- Causes of bone diseases
- Gaps in managing bone health
- The holistic approach to improve bone health

Findings: The prevalence of bone diseases increases significantly as the population ages. The reasons for bone diseases could be genetics, ageing, sex, ethnicity, lifestyle, medications, as well as infections. Most of the time as the signs of bone health is invisible, the condition remains unrecognized. Until there occurs a fracture or severe pain, the condition is overlooked. The management of bone health revolves around supplementation with calcium. As the causes of bone diseases are multifactorial, there is a need for a holistic approach to improving bone health.

Conclusion & Significance: According to studies, a holistic approach comprising of a balanced diet, physical activity, less beverage consumption, no smoking and supplements based on deficiency diseases would enhance bone health. Periodic health checkups will also delay the onset of bone diseases.

Recent Publications

1. Shunmukha Priya S., (2022) Quantified Nutrition – An approach towards healthy eating. Conference on Clinical Nutrition and Dietary Lifestyle" during May 20th and 21st, 2022 at Bangalore, India (Virtual presentation)
2. Shunmukha Priya S., (2021). “A review on Immune enhancers and weakeners” in the session of Immunity & Infection (Track-2) at the “4th International Conference on Food and Nutrition (ICFN)” held on 23rd and 24th September 2021 held at Malaysia (Virtual oral presentation) (Received 2nd Prize)
3. Shunmukha Priya S., (2021). An observational study among obese hypothyroid dyslipidemia clients following an integrated approach involving nutrition and lifestyle counseling. International Journal of Pharmacy And Biological Sciences, 11 (1) Pp.147-154. Online ISSN: 2230-7605. DOI: 10.21276/ijpbs.2021.11.1.20
4. Shunmukha Priya S., (2020). A review on the role of fiber and fiber supplements in health. International Journal of Food Science and Nutrition, 5 (6); Pp. 82-86. ISSN: 2455 – 4898
5. Shunmukha Priya, S. (2017). Invitro bioaccessibility of iron and zinc from millet based convenience foods; International Journal of Advance Engineering and Research Development 4(9): Pp 158-16

Biography

Shunmukha Priya. S, Research Supervisor and Faculty. Holds M.Phil and Ph.D in Food Science & Nutrition, and is also UGC NET qualified. Published in journals and presented papers in national and international conferences. Life member of Nutrition Society of India, currently serving as Research

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Hidden hunger among women - A cause for osteoporosis

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Statement of the Problem: Hidden hunger generally known as micronutrient malnutrition develops when there is a deficiency in the micronutrients such as vitamins and/or minerals. These deficiencies of micronutrients could be due to insufficient dietary intake or poor absorption. Though required in minute quantities, the deficiency would result in severe health issues. This hidden hunger is seen across the globe, among all age groups and different physiological statuses. Deficiencies of calcium, vitamin D, and phosphorus might lead to osteoporosis in later life. Restricted diet, anti-nutritional factors present in the food, higher micronutrient demands during specific phases such as pregnancy and breastfeeding, and health concerns such as illnesses, and infections, can lead to micronutrient deficiencies. The clinical signs of hidden hunger, like deterioration of bone health due to insufficient Vit D3 and calcium, are often seen at a very later stage. Most people have “invisible signs” or the less evident symptoms that lead the micronutrient deficiency to a hidden problem.

Methodology & Theoretical Orientation: Hidden hunger is a highly prevalent problem that still remains uncontrolled. For the present study, the keywords used were 'hidden hunger, micronutrients, malnutrition, osteoporosis, women's health'. Databases such as PubMed, Google Scholar, and Web of Science were searched for relevant material. The orientation of the study is as follows:

- Prevalence of osteoporosis among women
- Factors leading to osteoporosis
- Strategies to manage osteoporosis

Findings: It is estimated that two million people suffer from hidden hunger globally. The factors that lead to hidden hunger include genetics, socioeconomic, physiological, nutritional, and behavioral. The strategies to manage/prevent hidden hunger are - home gardening, dietary diversity, supplementation, medication, food processing, food fortification, and lifestyle modification.

Conclusion & Significance: Hidden hunger is a huge problem but is often overlooked. Osteoporosis, if left undiagnosed and untreated may result in serious health consequences to the women as well as the family.

Recent Publications

1. Ms. Zainab Cutlerywala. Effect of Physical activity on enhancing Bone health among women., on 15th International Conference on Orthopedics, Osteoporosis & Trauma from March 14-15, 2022 in London, UK (Virtual oral presentation)
2. Given talk on Nutrition and Fitness at a community gathering in Pune.

Biography

Zainab Cutlerywala., Asst. Faculty Institute of Nutrition and Fitness Sciences. An INFS Expert Certificate and ESS certification holder and has been training online in Fittr for two years She is an Asst. Faculty at INFS and handles various papers at INFS.

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Webinar on

OSTEOPOROSIS, ARTHRITIS AND MUSCULOSKELETAL DISORDERS

June 15, 2022 | Webinar

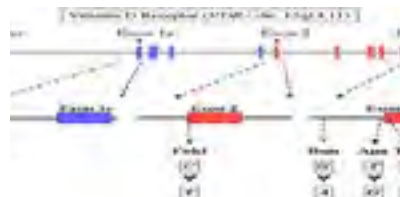
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VDR gene and bone mass

Massimo Piracci

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Background: In recent years, the relevance of vitamin D receptor (VDR) gene restriction fragment length polymorphisms and BMI has been investigated by a great number of studies. It has been hypothesized that VDR polymorphisms may influence the bone mass. However, studies investigating the associations between specific VDR polymorphisms and bone mass often show controversial results. We have now performed a systematic review of the literature to analyse the relevance of VDR polymorphisms for bone mass. **Materials and Methods:** An analysis of studies evaluating the association between vitamin D receptor gene polymorphisms Fok1, Bsm1, Taq1, Apa1, and Cdx2, poly (A) and Bgl1 as well as some haplotype combination has been performed. Data were extracted from PubMed using the key words VDR polymorphism in combination with bone mass. **Results:** This analysis was performed with the intent of giving an up-to-date overview of all data concerning the relevance of VDR polymorphisms for bone mass. Obviously, at present it is still not possible to make any definitive statements about the importance of the VDR genotype for bone mass. It seems probable that interactions with other factors such as calcium and vitamin D intake, 25(OH)D plasma levels and others gene play a decisive role in BMI occurrence and should not be underestimated. Other risk factors such as obesity, smoking status, alcohol and others are also frequently mentioned as being more or less important for BMI depending on the VDR genotype. **Conclusion:** The determination of the VDR is hardly usable test from the point of view of clinical practice. The association between VDR and bone mass is relatively small overall. To date, however, the role played by the VDR gene polymorphisms on bone mass has not been defined with precision and requires a further confirmation in larger population groups, better characterized and different from ethnic point of view. Probably other and environmental factors involved in determining bone mass have yet to be identify.



Recent Publications

1. Immunohistochemical evaluation of vitamin D receptor (VDR) expression in cutaneous melanoma tissues and four VDR gene polymorphisms

Francesco La Marra, Giuseppe Stinco, Cinzia Buligan, Giovanni Chiriaco, Diego Serraino, Carla Di Loreto, Sabina Cauci *Cancer Biol Med.* 2017 May; 14(2): 162–175. doi: 10.20892/j.issn.2095-3941.2017.0020PMCID: PMC5444928.

2. Vitamin D pathway-related gene polymorphisms and their association with metabolic diseases: A literature review

Buthaina E. Alathari, Aji A. Sabta, Chinnappan A. Kalpana, Karani Santhanakrishnan Vimalaswaran *J Diabetes Metab Disord.* 2020 Dec; 19(2): 1701–1729. Published online 2020 Jun 16. doi: 10.1007/s40200-020-00561-w PMCID: PMC7843833

3. Establishing a genetic link between FTO and VDR gene polymorphisms and obesity in the Emirati population Saad Mahmud Khan, Sarah El Hajj Chehadeh, Mehera Abdulrahman, Wael Osman, Habiba Al Safar BMC Med Genet. 2018; 19: 11. Published online 2018 Jan 17. doi: 10.1186/s12881-018-0522-z PMID: PMC5773046.

Biography

Massimo Piracci, is a practicing, board certified consultant Orthopedics and Sports Medicine and brings Italian expertise to Saudi German Hospital Dubai. On successful completion of his MBBS from Roma Tor Vergata, Italy in 1992, he subsequently received his MD in Orthopedic and Traumatology from the same University in 1999. Professor Piracci was trained in Orthopedic Surgery in Roma Saint Eugenio Hospital and in Latina Santa Maria Goretti Hospital. From the year 2003 he was HOD in Orthopedic and Traumatology Department in Roma Clinic Annunziatella where he performed more than 10.000 surgeries. Professor Piracci also maintained a 15-year career as a professional FIGC Series A, football referee, during which he also consulted as an external orthopedic physician for varying professional football teams. He received his PH.D in Health Science and Osteopathy on June 7, 2012 and Masters of Science in Sports Medicine on October 21, 2013 in Miami International University in US. In 2014 Professor Piracci was situated in the UAE at AL Salama Hospital and Universal Hospital, Abu Dhabi. Here he successfully treated the Al Jazeera Football Club, goal keeper with ACL reconstruction. He uses the most advanced technologies and biological implant (PRP, Stamina cells, Ozone Therapy) and mini invasive surgery of hip head. He treats the most of orthopedic pathology for children and adults, the most of minor and major trauma, and sport injury with advanced mini invasive technique. For low back pain he uses the treatment with Ozone therapy that resolve the pain giving back a normal life to the patient. He was the HOD of Orthopedic department in Czech Rehabilitaton Hospital in Al Ain and HOD of Regenerative and Sport Medice in Adam Vital Hospital in Dubai. Consultant Orthopedic Surgeon in Valiant Clinic in Dubai. Speaker last year at 2nd national congress SIMCRI giving own experience for a particular implant of biological screw in osteonecrosis.

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Outcome of delayed internal fixation of distal radius fractures

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Displaced unstable distal radius fractures are traditionally treated with early open reduction and internal fixation to achieve favorable outcomes. In contrary, there is still paucity of data regarding outcomes following delayed internal fixation for these types of fractures. The objective of the study was to determine the outcome after delayed internal fixation of distal radius fractures in the Philippine Orthopedic Center. Patients with nascent distal radius fracture (4 to 16 weeks) who met the inclusion criteria were enrolled in a consecutive case series study. The wrist range of motion, radiographic parameters, and DASH scores were measured pre-operatively, postoperatively at 2 weeks, 1 month, 2 months, 3 months, 6 months and 1 year. There were 40 patients in the study with a mean age of 36.1 years of age. Immediate post-operative radiographic measurements showed mean radial height of 11.7mm, mean radial inclination of 22.1 degrees, mean palmar tilt of 4.9 degrees, mean ulnar variance of -1.6mm, and AP diameter of 18.2mm. At 1 year of fracture healing, mean radial height was 11.6mm, mean radial inclination was 21.8 degrees, mean palmar tilt was 5.1 degrees, mean ulnar variance was -1.6mm, and AP diameter was 21.8mm. The average score in the Disabilities of the Arm, Shoulder and Hand (DASH) questionnaire was 6.24. and all patients achieved functional range of motion of the wrist. The results of the study suggest that internal fixation is a viable option for nascent distal radius fractures.

Recent Publications

1. Rozental TD, Makhni EC, Day CS, et al: Improving evaluation and treatment for osteoporosis following distal radial fractures. A prospective randomized intervention, J Bone Joint Surg Am 90:953-961, 2008
2. Rozental TD, Blazar PE. Functional outcome and complications after volar plating for dorsally displaced, unstable fractures of the distal radius. J Hand Surg Am. 2006; 31:359- 365.
3. Gluck JS, Chhabra AB. Loss of alignment after closed reduction of distal radius fractures. J Hand Surg Am. 2013;38(4):782-783.
4. Jupiter JB, Ring D. A comparison of early and late reconstruction of malunited fractures of the distal end of the radius. J Bone Joint Surg Am. 1996; 78:739-748.
5. Weil YA, Mosheiff R, Firman S, et al. Outcome of delayed primary internal fixation of distal radius fractures: a comparative study. Injury. 2014; 45:960-964

Biography

Rodolfo B. Garcia III is an Orthopedic Surgeon and had his training from the Philippine Orthopedic Center. Dr. Garcia conducted research on delayed internal fixation of distal radius fractures. In contrary to most studies where distal radius surgery was done immediately, the respondents in their study underwent open osteoclasis and internal fixation 4 to 16 weeks afterinjury.

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