PAKISTAN SOCIETY FOR RHEUMATOLOGY

NEWSLETTER

Volume 4 July 2022

JUVENILE IDIOPATHIC ARTHRITIS
Important Updates Regarding Its Subtypes

Courtesy : Prof. M. Haroon

JIA is defined as chronic form of arthritis means persisting for at least 6 weeks and appears before the age of 16. JIA comprises a heterogeneous group of diseases characterized by arthritis of unknown origin. JIA is the most common chronic rheumatic disease in children and an important cause of disability; in high-income countries, the prevalence of JIA is estimated to be 16–150 per 100,000 in the population. There are seven different subtypes of JIA (as per ILAR), with distinct modes of presentation, clinical signs and symptoms, and genetic backgrounds. However, these 7 ILAR JIA categories have been proposed to be revised into 4 homogenous subtypes that have adult counterparts. Patients whose characteristics do not fit the criteria of the 4 subtypes are classed as "other JIA disorders". Patients who meet criteria for more than one of the defined subtypes are classed as undifferentiated JIA. Another subtype, RF negative polyarthritis, is pending further research due to its heterogeneity.

Compared to 5 subtypes of adult SpA, life is little easier when it comes to Juvenile SpA since there are only 2 subtypes – Enthesitis related arthritis and juvenile Psoriatic arthritis. Likes of all different forms of adult SpA can be found in children, with the major difference being the higher proportion of undifferentiated forms in children.

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MESSAGE FROM EDITOR-IN-CHIEF

It is an honor to present another volume of the PSR newsletter. This arduous task would not have been possible without unconditional support from my team.

DR. TAHIRA PERVEEN UMER
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Assistant Professor and Head-Department of Rheumatology,
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Courtesy : Dr. Hamza Alam

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MUSCULOSKELETAL ULTRASOUND (MSUS) - EMERGING IMAGING DYNAMICS IN RHEUMATOLOGY

Courtesy : Dr. Amir Saeed

INTRODUCTION:

In the past decade, musculoskeletal ultrasonography (MSUS) has been extensively used by an ever-growing number of rheumatologists in both research studies as well as in daily clinical practice. The need to monitor individual patients, along with the recognition that MSUS can depict subclinical synovitis and enthesitis, have been the main drivers behind the escalating utilization of MSUS [1]. In addition, MSUS has the potential to reliably guide treatment interventions (e.g., needle aspiration, intra-articular injections) [2] and was shown to have profound effects on disease classification and physician decision making [3].

Ultrasound is a noninvasive, cost-effective method that enables the evaluation of several joints at the same time, including functional assessments. It has been extensively used for research purposes, devising disease classification criteria, disease monitoring and treatment modifications. Over the years, MSUS has gained popularity to become a potent sub-specialty in Rheumatology. In the Western world it has been inducted in the formal Rheumatology specialist training in recent years.

Overall, MSUS has been used to evaluate four major aspects of rheumatic diseases for clinical and research purposes.

A. Joint pathologies (joint effusions, proliferative bone formation, osseous erosions, synovitis, crystal deposits etc.)

B. Muscle and tendon pathologies (like enthesitis, enthesopathy, tendinopathies, tendon tears, tenosynovitis, tendon ruptures etc.)

C. Nerve related problems (CTS, cubital tunnel syndrome etc.).

D. Vascular involvement in rheumatic diseases e.g. Giant Cell Arteritis.

In this article, we will cover most common MSUS related findings in daily practice (Synovitis, tenosynovitis, enthesitis and enthesopathy). Other common and uncommon findings will be discussed in the future. It is important to understand some basics of MSUS before we discuss imaging of various pathologies in detail.

BRIEF BASICS:

- Ultrasound can be used to scan and evaluate most of the musculoskeletal tissues.
- Articular and periarticular structures may only be visualised if they fall within an acoustic window.
- Transducers and settings should be chosen according to the presets, and settings should be selected according to the chosen joint component or tissue.
- Gray scale and power Doppler are two important components of MSUS.
- MSUS requires formally trained sonographer and interpreting physicians.

Limitations (inability to identify very deep located structures, false positive power Doppler signals or normal fluid accumulation in different joints mimicking as inflammatory) associated with ultrasound imaging should be considered for its use in the differentiation and diagnosis of inflammatory arthritides.

COMMON MSUS FINDINGS OF INFLAMMATORY ARTHRITIS:

A. **Synovitis:** synovitis is a key feature of arthritis and important in the diagnosis of any arthritic condition. Inflamed synovial lining can result in synovial hypertrophy, increased perfusion, and excess synovial fluid (joint effusion). Each joint should be evaluated for the presence or absence of synovial hypertrophy, effusions, erosions and Doppler signal (figure -1).

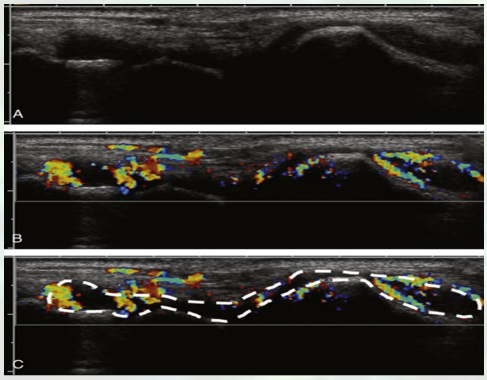

Figure 1.The hypertrophic synovium is identified (A), and the color Doppler image with maximum color activity is selected for analysis (B). The synovium inside the color box is traced, thereby outlining (dashed line) the region of interest (C). The amount of color pixels is expressed relative to the total amount of pixels in the marked region of interest; this is the color fraction.

B. Tenosynovitis: Inflammation of the synovial sheath of sliding tendons is similar to the ultrasound findings for anchor tendons. Acutely, the inflammation is characterized by a concentric halo around the tendon, consisting of anechoic or hypoechoic, compressible fluid. As the lesion progresses, sheath thickening becomes more evident. The later stages can manifest as chronic, focal or diffuse, noncompressible thickening of the synovial sheath, which may lead to injury and entrapment of the tendon (i.e. De Quervain's disease). The sheaths of some tendons (e.g. long head of the biceps tendon) communicate directly with the joint space, and tendon sheath distention may be associated with underlying articular disease.
Unsheathed tendons, such as rotator cuff tendons (between shoulder joint and subacromial bursa at the shoulder) (figure -2) and the Achilles tendon (adjacent to the retrocalcaneal bursa), often are involved in inflammatory processes.

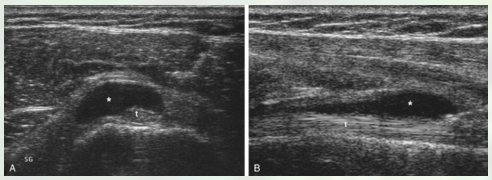

Figure 2. Scans show tenosynovitis (stars) of the long head of the biceps tendon (t) in transverse (A) and longitudinal (B) views.

Musculoskeletal ultrasound has become an important imaging technique for the diagnosis of tendon lesions. Clinical studies have shown that musculoskeletal ultrasound is more sensitive in the detection of inflammatory signs than the clinical examination of patients with inflammatory disorders. Colour and power Doppler can be used to differentiate inflammatory from noninflammatory tendon diseases, such as spondyloarthritis along with the Achilles tendon. For the best resolution, the highest ultrasound frequency should be used, and the penetration depth and frequency should be adapted.

ENTHESOPATHY AND ENTHESITIS:

According to the Outcome Measures in Rheumatoid Arthritis Clinical Trials (OM ERACT) definition, enthesopathy is an abnormal hypoechoic (i.e. loss of normal fibrillar architecture) and thickened tendon or ligament at its bony attachment; it sometimes contains hyperechoic foci consistent with calcification. It is viewed in two perpendicular planes, which may exhibit Power Doppler signals or other changes, including enthesophytes, erosions, or other irregularities (figure-3).

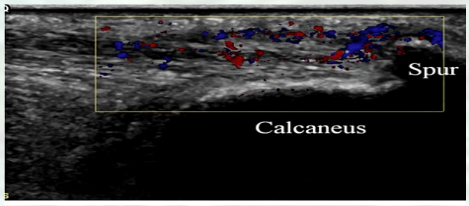

Figure -3. Mechanical Achilles tendon enthesopathy. Longitudinal section showing heterogeneous hypoechoic thickening of the posterior aspect of the enthesis with posterior spur and hyperaemia on colour Doppler examination.

Involvement of the enthesis in any pathologic process—metabolic, inflammatory, traumatic, or degenerative—is referred to as enthesopathy, and the term enthesitis is restricted to inflammatory enthesopathy, which appears to be a cardinal feature of spondyloarthritis (figure-4). Although Niepel and colleagues first used the term for describing inflammatory symptoms at insertional sites as an important feature of ankylosing spondylitis, enthesitis is a common characteristic feature of all spondylarthritis complexes; which include psoriatic arthritis, reactive arthritis, arthritis associated with inflammatory bowel disease, and the

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undifferentiated forms. In his "Heberden Oration," Ball suggested that ankylosing spondylitis and rheumatoid arthritis were different primarily in the organs they targeted. He suggested that inflammation at the enthesis is the distinctive pathologic feature of ankylosing spondylitis. In contrast, the characteristic feature of rheumatoid arthritis is a persistent inflammatory synovitis symmetrically involving mainly the peripheral joints.

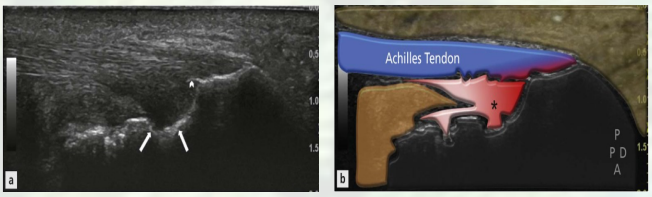

Figure - 4. Achilles tendon enthesitis. The distal Achilles tendon is thickened and hypoechoic (*). At the insertion there is erosion (arrows) and enthesophyte (arrowhead).

REFERENCES:

1. Brown ak, conaghan pg, karim z, quinn ma, ikeda k, peterfy cg, hensor e, wakefield rj, o'connor pj, emery p (2008) an explanation for the apparent dissociation between clinical remission and continued structural deterioration in rheumatoid arthritis. Arthritis rheum 58:2958–2967
2. Mandl p, naredo e, conaghan pg, d'agostino ma, wakefield rj, bachta a, backhaus m, hammer hb, bruyn ga, damjanov n, filippucci e, grassi w, iagnocco a, jousse-joulin s, kane d, koski jm, möller i, de miguel e, schmidt wa, swen wa, szkudlarek m, terslev l, ziswiler hr, ostergaard m, balint pv (2012) practice of ultrasound-guided arthrocentesis and joint injection, including training and implementation, in europe: results of a survey of experts and scientific societies. Rheumatology (oxford) 51:184–190
3. Wakefield rj, green mj, marzo-ortega h, conaghan pg, gibbon ww, mcgonagle d, proudman s, emery p (2004) should oligoarthritis be reclassified? Ultrasound reveals a high prevalence of subclinical disease. Ann rheum dis 63:382–385

WORLD ANKYLOSING SPONDYLITIS DAY AWARENESS PROGRAM

Courtesy: Dr. Tahira Perveen Umer

Low back pain is the second most common complaint after the common cold, with which the patients visit doctors. One of the reasons of low back pain is axial spondyloarthritis; a chronic, inflammatory rheumatic disease that affects the axial skeleton, causing severe pain, inflammation at sacroiliac joint, morning stiffness and irreversible fusion of joints.

Novartis in collaboration with rheumatologists: Prof. Samina Ghaznavi, (President PSR and Consultant rheumatologist at South City Hospital), Dr. Tahira Perveen Umer (Head of Rheumatology at Liaquat National Hospital & Medical College), Dr. Tabe Rasool (Assistant Professor at DUHS-Ojha campus) and Dr Lubna Abbasi (Consultant Rheumatologist at Indus Hospital) were among the expert panelists to address the public and general physicians on axial spondyloarthritis commonly known as ankylosing spondylitis (AS).

This awareness program was organized for world ankylosing spondylitis day on 27 April, 2022 at Pearl Continental hotel, Karachi. It aimed to disseminate awareness and knowledge about managing the low back pain among public and health care professionals. Express media group (Express Tribune & Roznama Express) was the media partner of the event.

RHEUMATOLOGISTS REPRESENTATION IN KARACHI CON,22

Courtesy : Dr. Tabe Rasool

Karachi Con 22 held on 4th and 5th June 2022, under Pakistan Islamic Medical Association (PIMA) at Pearl Continental Hotel, Karachi.

Although there was no dedicated Rheumatology session but in orthopedic and trauma session three Rheumatologists were invited for topic presentation. Professor Samina Ghaznavi delivered a talk on "management of osteoporosis", Dr. Syed Mahfooz Alam delivered talk on "common causes of joint pains: diagnosis, prevention and treatment" and Dr. Tabe Rasool talked about "rickets & osteomalacia; Diagnosis, prevention & treatment".

It was attended by a good number of general practitioners, trainees from medicine and orthopedics departments.

At the end of session, Dr Tabe Rasool emphasized on the need of having dedicated session for Rheumatology. It was reassuring that the organizing committee agreed with the idea.

LATEST EULAR HIGHLIGHTS 2022:

Courtesy : Prof. M. Haroon

Citation: volume 81, supplement 1, year 2022, page 132

1. FEW ABSTRACTS REGARDING ORAL SURVEILLANCE STUDY: CARDIOVASCULAR RISK OF TOFACITINIB VS. TNF INHIBITORS:

The Oral Surveillance trial has recently become "talk of the town" among rheumatologists. To summarise, it was an FDA-mandated, open-label, randomized controlled trial that had high cardiovascular (CV) risk patients with active RA, on the background stable dose methotrexate and were randomized to either a TNFi (etanercept in North America and adalimumab in rest of world) or Tofacitinib 5 mg twice a day (the approved dose) or 10 mg twice a day.

ORAL surveillance study had 2 primary endpoints: cardiovascular events (MACE) and malignancy. Included patients had to be 50 years or older. High CV risk included patients with at least one of the following: past coronary events, hypertension, diabetes, hyperlipidemia, cigarette smoking history, positive family history of early onset CV events and/or extra-articular RA such as nodules or interstitial lung disease.

Overall results showed that there were more MACE and malignancies reported in Tofacitinib arms compared to TNFi treatment.

At EULAR 2022, 4 important abstracts comparing CV risks and MACE events were presented. It is not unexpected that the highest chance of having a MACE event is a previous MACE event, or presence of various baseline cardiovascular risk factors.

Following is the summary of the four abstracts on this topic, presented at EULAR 22, which I have tried to very briefly summarise.

A. OP0264:

In this particular abstract, the authors investigated the impact of baseline cardiovascular risk on the incidence of major adverse cardiovascular events (MACE) among patients with RA in the Tofacitinib Clinical Programme. It was noted in this study that these major cardiovascular events are related directly with baseline cardiovascular risk factors in the overall cohort. This study emphasises the importance of assessing patients for cardiovascular risk factors, which is especially important when identifying patients for this particular targeted synthetic DMARD treatment.

B. POS0674:

In this post-hoc analysis of Oral Surveillance Study, authors have specifically looked at RA patients aged ≥50 years, having ≥1 additional cardiovascular risk factor. They looked at the incidence rates (IRs) of major adverse cardiovascular risk events (IRs: patients with first events/100 patient-years). It was concluded that the incidence rates of major cardiovascular events were higher in Tofacitinib group vs patients treated with TNF inhibitors.

C. OP0135:

This is the review of observational data from German RABBIT Register (real-world setting) and authors have looked at the risk of cardiovascular events in RA patients taking JAKi. Surprisingly, authors reported in that abstract that major cardiovascular events were lower than the incidence rates reported for tofacitinib in the oral Surveillance study. Authors concluded "We found no evidence of an increased risk of MACE with JAKi compared to TNFi, although patients in the JAKi group were older and had longer disease duration".

D. POS0237:

Another Post Hoc analysis of Oral Surveillance study, where incidence of Major Adverse Cardiovascular Events (MACE), malignancies and venous thromboembolism was analysed depending on patient's baseline cardiovascular risk.

In this study, it was noted that among patients with a history of coronary artery disease or high baseline cardiovascular risk score; incidence rates for MACE and malignancies were significantly increased with tofacitinib (both doses) compared to TNF inhibitors. Regarding the risk of venous thromboembolism, a similar finding was observed only in patients treated with higher dose of tofacitinib (10 mg BD).

In summary, these abstracts emphasise the importance of regularly assessing and addressing cardiovascular risk in RA patients. Additionally, it was obvious that presence of baseline risk factors can potentially help in identifying RA patients at highest risk of cardiac events, and can significantly aid clinicians to make important treatment decisions.

2. AXIAL SPONDYLOARTHRITIS:

This year at EULAR 2022, there were important and interesting topics in Axial Spondyloarthritis (AxSpA). Here are some picks from these abstracts.

A. OP0073—IMPORTANT GENDER DIFFERENCES IN MRI IMAGINGS OF AXIAL SPA:

Not only the gender seems to have an impact on treatment response, Ulas and colleagues have shown clinically important gender differences as regards MRI scans of patients with axial spondyloarthritis. In this study, gender-specific assessment of MRI imaging criteria in 684 patients was made. Authors observed a lower prevalence for ankylosis (7.4 vs. 24.3%) and fat metaplasia (42.6 vs. 58.8%) in females AxSpA patients; while sclerosis was more common (75.0 vs. 57.6%). They observed no particular difference for other parameters such as bone marrow oedema and erosions. Moreover, in male AxSpA, ankylosis showed the most significant difference in individual parameters with a diagnostic odd ratio (DOR) of 40 compared with females (DOR 4.7). The detection of other parameters such as erosions and fat metaplasia was also better in male AxSpA patients.

Female AxSpA patients have significantly lower diagnostic performance of established image markers on MRI. Further studies are needed to elude whether there is a rationale to revise the imaging criteria to include gender-specific differences to improve diagnostic accuracy for male/female AxSpA patients?

B. OP0020—GENDER DIFFERENCES REGARDING THERAPEUTIC RESPONSES :

Gender differences in terms of response to biologics in AxSpA is another topic that has gained increased attention in the last few years. Hellamand and colleagues presented a study where they assessed gender differences in effectiveness of TNFi in biologic-naive patients using data from fifteen countries in the EUROSPA research Collaboration network.

A total of 6,451 AxSpA patients were assessed for treatment response. The authors found that the probability for females to have a clinically important improvement was 15% lower than males (RR 0.85; 95CI

0.82-0.89). In addition, the retention rates of TNFi were significantly lower at 6, 12 and 24-months in females (81%/69%/58%) compared to males (89%/81%/72%). Females had lower CRP levels and higher PROs at baseline.

These results support the development of gender stratified therapeutic strategies.

C. OP0018—COMBINATION OF NSAIDS WITH BIOLOGICS: CONSUL STUDY:

NSAIDs are the standard treatment used in the management of AxSpA. However, it is unclear whether their efficacy differs when used alone or in combination with biologics. Proft et al presented the CONSUL study showing that there was no significant difference in Celecoxib+ Golimumab vs GOL alone. The mSASSS change was 1.1 vs 1.7, p=0.79 between the 2 groups. However, this combination may be clinically relevant in high-risk progressors as previous data have shown in people with raised inflammatory markers.

D. OP0149—PREDICTORS OF RADIOGRAPHIC PROGRESSION: PROOF STUDY:

On the topic of radiographic progression in AxSpA, the PROOF study showed the predictors of radiographic progression which included male gender, good response or poor response? fulfillment of the imaging arm and being HLA-B27+. Additionally, the rate of progression from non-radiographic to radiographic AxSpA was also presented. The PROOF study showed that only 16% of nr-AxSpA pts progressed to r-AxSpA within 5 years with a mean time to radiographic progression of 2.4 years.

E. OP0016—JAK INHIBITORS USE IN NON-RADIOGRAPHIC SPA:

In the area of new therapies, upadacitinib (UPA), a JAK inhibitor, has been used in the treatment of radiographic AxSpA, known as ankylosing spondylitis. However, its efficacy in non-radiographic AxSpA has been unknown. The use of UPA in patients with active non-radiographic AxSpA from a Phase 3 RCT (SELECT-AXIS 2) was presented. The ASAS-40 response rate for UPA was twice vs placebo (45% vs 23%). 12 out of 14 of the secondary endpoints were also met. In the area of biologic inadequate response in AS, UPA 15 mg od was significantly more effective than placebo over 14 weeks with ASAS40 UPA 45% vs PBO 18% and the onset of effect seen by week 4. No new safety risks identified in the SELECT-AXIS 2 study by Van de Heijde et al POS0306.

F. POS0304—IMPROVEMENT OF DEPRESSION SYMPTOMS WITH THE REDUCTION OF SPA DISEASE ACTIVITY BUT HAS DIFFERENTIAL THERAPEUTIC RESPONSE:

Depression is one of the important comorbidities in AxSpA. Treatment of active SpA improves depressive symptoms in SpA with study showing that Hospital Anxiety and Depression Score (HADS) reduce with the reduction of SpA related disease activity. This has been shown to be the greatest for TNFi followed by NSAIDs and csDMARDs. TNFi reduced the proportion of patients (48% to 29%) with depressive symptoms at follow-up. This study shows that active treatment not only improves joint symptoms but also comorbidities such as depression.

G. OP0153 & POS151—PREGNANCY & SPA:

The impact of AxSpA and its treatment on pregnancy was also covered in two abstracts. Hamroun S et al. OP0153 for the GR2 Cohort showed that older age and use of NSAIDs in the preconception period was associated with a longer time to conception in women with SpA. These results are of some concern for rheumatologists and further research is needed on continuous NSAID use in the preconception period.

Pregnancy outcomes in SpA (including PsA) were also presented and showed that 40% of patients experienced a flare during pregnancy and other 40% in the postpartum period. Flare was common in the 2nd trimester and in patients with axial involvement, with some requiring restart of TNFi treatment. Interestingly, having a flare in pregnancy was not associated with a postpartum flare.

3. ASAS/EULAR RECOMMENDATIONS FOR THE MANAGEMENT OF AXSPA:

Recommendations and guidelines are very helpful in our daily clinical practice. This year there were important updates of the ASAS/EULAR Recommendations on the management of AxSpA presented by Sofia Ramiro from Leiden.

Following is a brief summary of these recommendations:

- NSAIDs remain the first line pharmacologic treatment.
- ASDAS cut-off of 2.1 was recommended to start bDMARDs or tsDMARDs.
- ASDAS was considered a better choice than BASDAI.
- Any of the drug classes can be started as a first line therapy – TNFi, IL-17i or JAKi.
- Although, any of the drug classes can be started as a firstline therapy, but it was suggested to use TNFi and IL-17i as first line agent given the enormous data on their safety and clinical experience.
- Extra musculoskeletal manifestations were also considered. It was suggested that in the presence of uveitis, psoriasis and IBD; anti-TNF monoclonal antibodies be preferred. In the case of severe skin psoriasis, IL-17i should be preferred.
- Treatment failure was discussed in detail and it was suggested that it was suggested to first re-evaluate the diagnosis/ question the diagnosis and look for comorbidities which might be contributing to poor response to therapy.

4. FIRST EVIDENCE OF INTERVENING IN PRE-RHEUMATOID ARTHRITIS STAGE:

A randomized, double-blind, study which aimed to find out whether giving methotrexate in the pre-arthritis phase of arthralgia (with subclinical joint inflammation but no joint swelling) prevents the development of clinical arthritis or reduces the burden of disease. Current practice is not to initiate DMARDs therapy unless clinical arthritis is evident.

236 patients were included in this study. Treatment and placebo groups were matched. These participants had not yet developed clinical arthritis (normal physical joint examination), but they all had MRI proven subclinical joint-inflammation. Patients were randomized (1:1) to either a single intramuscular glucocorticoid injection (120 mg methylprednisolone and a 1-year course of oral methotrexate (up to 25 mg/week), or to placebo injection and placebo tablets, and were then followed for a further year without medications to see whether disease progressed.

Results showed that methotrexate in clinically suspected arthralgia delayed but did not prevent clinical arthritis development; however, it did lead to sustained reduction of disease burden and MRI-detected inflammation in all at-risk groups,

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shows the 2-year Treat Earlier study. The authors have claimed that their study has provided the first evidence for disease modification if intervened in 'pre-RA' or arthralgia stage (no overt arthritis). presented her study at the annual European Congress of Rheumatology.

4. OP0131:

Methotrexate use in Men who wish to become a Father : new evidence from the largest prospective study to date (iFAME-MTX).

In this prospective study, authors compared the semen parameters (sperm concentration, volume and progressive motility) between men diagnosed with immune mediated diseases, (pre and post exposure to MTX) and healthy controls. Patients were suffering from RA, SpA and Psoriasis. Patients were requested to produce 2 semen samples (a pre-exposure sample before initiating MTX therapy and a post-exposure sample 12 weeks after initiating MTX therapy). No cases of azoospermia were identified. It was noted that exposure to MTX did not result in statistically significant different semen parameters. Authors conclude that their findings suggest that MTX therapy can be continued in men who wish to become a father.

DEPARTMENT OF RHEUMATOLOGY AT FATIMA MEMORIAL HOSPITAL :

Department of Rheumatology at Fatima memorial Hospital had 2 presentations at this year's EULAR congress, and the abstracts are presented below. It is important that now we have large population-based cohort studies helping us to better understand our regional challenges as regards demographics, racial, socioeconomic and gender based disparities. _____

ABSTRACT-1 (POS0574)

Title: Stress at home is common and has significant association with marital status, higher disease activity, comorbidities, and worse quality of life among patients with rheumatoid arthritis: single centre results from the PRIME registry cohort

Muhammad Haroon, Sadia Asif, Saadat Ullah, Farzana Hashmi, Saba Javed

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Background:

In chronic inflammatory diseases like rheumatoid arthritis (RA), psychological stress is widely recognised as an important risk factor to negatively affect the disease course. Perceived stress can potentially induce the disease exacerbation, but on the other hand, the disease itself might produce significant stress to patients thus the vicious circle is formed and maintained.

Objectives:

We aimed to examine the prevalence of mental/emotional stress at home and its associations among patients with Rheumatoid arthritis. We addressed this question using real-world data from the PRIME registry.

Methods:

This was a cross-sectional study conducted using data collected at the time of patient enrolment in the PRIME registry. The PRIME Registry is a large, independent, prospective, observational cohort initiated in October 2019 that comprises patients diagnosed with RA, SLE, PsA or AS by a rheumatologist, and is being actively followed up. IRB approval and informed consent was obtained. We assessed the data for RA patients. The clinical variables studied were gender, age, smoking habits, body mass index, education status, marital status, disease duration, comorbidities (using Charlson Comorbidity Index).

Education status was stratified by whether participants completed secondary (high) school education. The SF-12 Physical Component Score (PCS-12) and Mental Component Score (MCS-12) was also measured. Evaluation of disease activity and severity was made as per internationally agreed definitions, such as: swollen joint counts, tender joint counts, deformed joint counts, and DAS-28. All participants were directly inquired at the interview during the time of patient enrolment about the presence or otherwise of mental/emotional stress at home, and to rate it from 1-3 (mild, moderate, severe). For better understanding and ease of statistical analysis, dichotomous variable was made with moderate-to-severe stress patients were categorised into one group and none-to-mild stress patients into second group.

Results:

The data from consecutive 1016 RA patients (mean age 40.8±13 years, 78.6% female, disease duration of 65±67 months) was reviewed. Forty-nine percent of patients accepted to have moderate-severe stress at home. Female gender (p=0.003), low education status (p=0.050), being unmarried (p=0.051), and MCS, PCS, CCI (p<0.001) were associated with moderate-severe stress.

However, no statistical association of age and disease duration was noted. On univariate analysis, significant association of moderate-severe stress at home was noted with deformed joint counts (p=0.003), higher DAS-28 scores (p<0.001), low education status (p=0.02) and being married (p<0.001). Weak statistical association of age (p=0.30), disease duration (p=0.12), low education status (p=0.14), female gender (p=0.24) was noted. On multiple logistic regression analysis, a significant association of moderate-severe stress at home was observed with higher DAS-28 scores (OR 2.38, CI 2.00- 2.84, p<0.001), MCS-12 (OR 0.65, CI 0.61-0.69, p<0.001), comorbidities-CCI (OR 1.41, CI 1.15-1.74, p=0.001) and being unmarried (OR 0.55, CI 0.36-0.83, p=0.005). The final regression model resulted in a statistically significant improved association/prediction of worse moderate-severe stress at home (R square=71%). Following variables were included in multiple stepwise regression analysis: age, disease duration, gender, education status, marital status, comorbidities index, major trauma/stress in last one year, DAS-28, MCS-12 and PCS-12 scores.

Conclusion:

Nearly half of the cohort was noted to have moderate-severe level of stress at home, and is associated with important adverse clinical outcomes. These findings demonstrate an important need for integration of rheumatologic, social workers and mental health services.

_____

ABSTRACT-2 (POS0574):

Title: Female Gender and Stress are main determinants of non-adherence and negative Illness Perception among patients with Rheumatoid Arthritis: single centre results from the PRIME registry cohort

Farzana Hashmi, Muhammad Haroon, Sadia Asif, Saadat Ullah, Saba Javed

Department of Rheumatology, Fatima Memorial Hospital & FMH College of Medicine and Dentistry, Lahore, Pakistan

Background:

Adherence to medications among patients with RA is traditionally considered to be low. Little is known about the indicators and the outcomes of patients having good adherence to medications among Pakistani RA patients.

Continued from page 06...

Objectives:

We aimed to assess the level of non-adherence and its associations with clinical indicators and outcomes using validated measures in a large consecutive Pakistani RA population. Moreover, we measured illness perception using additional validated tools to help us better understand this concept.

Methods:

This was a cross-sectional study conducted using data collected at the time of patient enrolment in the PRIME registry. IRB approval and informed consent was obtained. The clinical variables studied were gender, age, smoking habits, body mass index, education status, marital status, disease duration, Charlson Comorbidity Index. Education status was stratified by whether participants completed secondary (high) school education. Evaluation of disease activity and severity was made as per internationally agreed definitions. To measure adherence, the instrument used in the study was the Urdu version of the General Medication Adherence Scale (GMAS), which has been validated for RA patients. Brief Illness Perception Questionnaire (BIPQ) is the simplified version of the Illness Perception Questionnaire (IPQ). BIPQ is a nine-item scale designed to rapidly assess the cognitive and emotional representations of illness. To facilitate interpretation of results in daily clinical practice and to identify patients with the most negative illness perception, we dichotomized the BIPQ scores using the 75th interquartile range score as cutoff, as previously done.

Results:

The data of consecutive 320 RA patients enrolled in PRIME registry (mean age 37.4±13.4 years, 74% female, disease duration of 73±68 months, 30% rural residents, 32.5% had low education status of ≤primary school, and 35% of the cohort was employed) was reviewed. Thirty six percent of the cohort (n=116) was noted to have non adherence. On multiple logistic regression analysis, a significant association of moderate-severe stress (OR 1.85, CI 1.04-3.2, p=0.03), DAS-28 scores (OR 1.83, CI 1.52-2.21, p<0.001), HAQ scores (OR 1.77, CI 1.07-2.92, p=0.02), deformed joint counts (OR 1.30, CI 1.15-1.46, p<0.001). We further examined the concept of non-adherence among our cohort across three domains or components of GMAS questionnaire individually. Firstly, on multivariate regression analysis showed that non-adherence due to patient behavior had significant association with male gender (OR 0.48, p=0.01), unemployment (OR 1.82, p=0.02), stress (OR 2.17, p=0.001), DAS-28 (OR 1.15, p=0.050), worse HAQ scores (OR 1.83, p=0.005). Secondly, multivariate regression analysis showed that non-adherence due to comorbidity and pill burden was associated with age of onset of arthritis (OR 1.02, p=0.006), DAS-28 (OR 1.18, p=0.03), and HAQ (OR 1.81, p=0.008). Thirdly, multivariate regression analysis showed that cost-related non-adherence had no significant association with patient related demographics and traits, but was noted to have significant association with worse DAS-28 and HAQ scores. The mean total BIPQ score of the cohort was 62±8.8. Twenty six percent of the cohort (n=86) was noted to have the most negative illness perception (BIPQ score of >68). On multiple logistic regression analysis, a significant protective association of male gender (OR 0.24, CI 0.11-0.53, p<0.001) and age of onset of arthritis (OR 0.96, CI 0.94-0.99, p=0.01), along with significant association of worse HAQ scores (OR 3.7, CI 2.2-6.1, p<0.001) was noted with the most negative illness perception

Conclusion:

Non-adherence is common and its main determinants were female gender and stress, along with associated adverse clinical outcomes. Gender-based discrimination in low socioeconomic states along with associated stress is a plausible explanation.

AN UPDATE IN ANTIBODY TESTING TO AID IN ....DIAGNOSIS/PROGNOSIS OF SLE & SSC.

Courtesy : Dr. Tabe Rasool

FDA Clears Thermo Scientific EliA RNA Pol III and EliA Rib-P Tests for Use in U.S.

New blood tests aid in diagnosing systemic sclerosis and systemic lupus erythematosus

Thermo Scientific EliA RNA Pol III and EliA Rib-P tests have been cleared by the U.S. Food & Drug Administration (FDA) for aiding in the diagnosis of SSc/scleroderma and SLE.

With these new tests, the EliA portfolio provides a more robust clinical offering through a comprehensive menu of automated connective tissue disease tests.

"Autoimmune diseases can be a challenge to diagnose. Reliable and accurate laboratory tests that provide clinical clarity are essential tools for clinicians managing these patients," said Dr. Henry Homburger, Professor Emeritus of Laboratory Medicine at Mayo Clinic College of Medicine, and laboratory director, Thermo Fisher Phadia Immunology Reference Laboratory.

"The addition of RNA Polymerase III and Ribosomal P to the EliA connective tissue disease test menu will add considerable value to the diagnosis of SSc and SLE."

RNA Polymerase III is a criteria marker for SSc with both diagnostic and prognostic value.[1, 2] Additionally, in patients who are positive for RNA Polymerase III, up to 70% may have no other SSc associated antibodies present.[2] The EliA RNA Pol III test completes a criteria based EliA SSc panel and is the first fully automated RNA Polymerase test available in the U.S.

A subset of SLE patients present with monospecific Ribosomal P antibodies.[3]

Detection of these autoantibodies via indirect immunofluorescence has been shown to be an unreliable method, which if used solely, could result in delayed diagnosis and treatment.[4] The EliA Rib-P test is designed with optimal sensitivity and specificity and can be used to support the diagnosis of SLE, particularly in ANA negative patients. [3, 4]

"The availability of a strong CTD test menu on a fully automated instrument could improve the efficiency and productivity of diagnostic laboratories,"added Homburger. "The new EliA RNA Pol III and EliA Rib-P tests have been designed to improve the differentiation of SSc and SLE from other connective tissue diseases. Targeting existing diagnostic care gaps can potentially lead to earlier and more accurate diagnosis and ultimately improve clinical outcomes for patients."

Reference:

1. Van Den Hoogen, F., et al., 2013 Classification Criteria for Systemic Sclerosis: An American College of Rheumatology/ European League Against Rheumatism Collaborative Initiative. Arthritis & Rheumatism, 2013. 65(11): p. 2737-2747.

2. Wielosz, E., M. Dryglewska, and M. Majdan, Clinical consequences of the presence of anti-RNA Pol III antibodies in systemic sclerosis. Advances in Dermatology and Allergology, 2020. 37(6): p. 909-914.

3. Carmona-Fernandes, D., et al., Anti-ribosomal P protein IgG autoantibodies in patients with systemic lupus erythematosus: diagnostic performance and clinical profile. BMC Medicine, 2013. 11(1): p. 98.

4. Choi, M.Y., et al., A review and meta-analysis of anti-ribosomal P autoantibodies in systemic lupus erythematosus. Autoimmunity Reviews, 2020.19(3): p. 102463.

Continued from page: 01...

PAEDIATRIC RHEUMATOLOGY COURSE:

Department of Rheumatology Fatima Memorial Hospital organized first of its kind Paediatric Rheumatology course. Arthritis and rheumatic disease are potentially disabling and life threatening diseases, and its impact is significantly worse for Pakistani young kids, since there is not even a single trained Paediatric Rheumatologist in our entire country of 220 Million populations. By default, Paediatricians, primary care practitioners and adult rheumatologists are treating paediatric rheumatology patients with very little training to cater this challenge. Moreover, to date there has not been even a single such course arranged in Pakistan to help train our doctors. Hence, it was vital to have such course arranged.

This is an ongoing course, and is run by a world renowned Paediatric Rheumatologist, and we have designed this course to run over a duration of 6 months, with one weekend (2 half days) a month commitment. In spite of very limited advertisement, it was overwhelming to note that more than 270 doctors across the country (from all provinces) registered for this course.

Topics covered during this course are:

1. Why is Paediatric rheumatology a much needed area
2. Children, inflammation and jigsaw of unknown: a peculiar tale of paediatric rheumatology
3. JIA – a concept of past
4. Systemic onset JIA: Race against the time
5. Thieves market: 3 select cases from the participants with in depth discussion
6. Juvenile SpA – updates in its management
7. Imaging in Juvenile SpA
8. Mimicks of JIA
9. Juvenile SLE: Case study and review of its practice
10. Differences in the Pediatric & adult MSK imaging
11. JIA through the eyes of a Radiologist
12. JIA – stepwise management
13. Juvenile Dermatomyositis
14. Dermatologic manifestations of Rheumatologic conditions in children.

RHEUMATOLOGY FELLOWSHIP ACHIEVERS 2022

Courtesy : Dr. Hamza Alam

DR. SHAHZAD GUL

Supervisor: **Dr. Uzma Rasheed**
Institute: **Pakistan Institute of Medical Sciences -PIMS, Islamabad**
Year: **2022**

DR. SYED HASSAN MUSTAFA

Supervisor: **Dr. Suleman Khan**
Institute: **Lady Reading Hospital, Peshawar**
Year: **2022**

DR. SADAF ANDLEEB

Supervisor: **Prof. Tafazzul-e-Haq Mahmud**
Institute: **Shaikh Zayad Hospital, Lahore**
Year: **2022**

DR. SHAHIDA PERVEEN

Supervisor: **Dr. Babur Salim**
Institute: **Fauji Foundation Hospital, Rawalpindi**
Year: **2022**

QUIZ

Courtesy : Dr. Lubna Nazir

Q: 22 year old girl came to clinic with recent onset of polyarthralgias for few weeks mostly PIPS & MCPS. AM stiffness..2 hours.
What does the images show?

Image 1

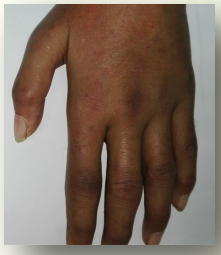


Image 2

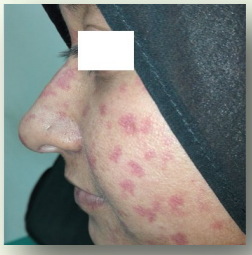


Image 3

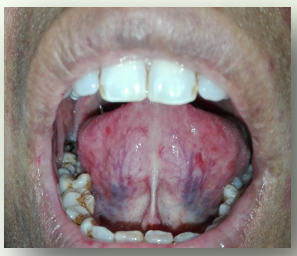
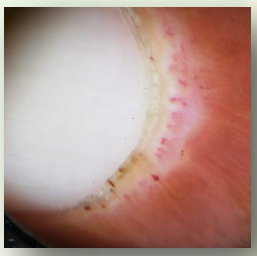


Image 4



Answer on last page

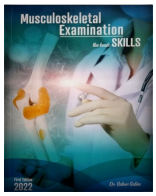
DEPARTMENTAL ACTIVITIES OF RHEUMATOLOGY DEPARTMENT

FAUJI FOUNDATION HOSPITAL, RAWALPINDI

Courtesy : Dr. Shahida Perveen

BOOK PUBLISHED BY DR BABUR SALIM

Examination skills are an important tool for clinicians to reach the accurate diagnosis. Dr Babur Salim (Associate Professor, Rheumatology department, Fauji Foundation hospital, Rwp), has recently published a book titled "Musculoskeletal examination; the basic skills". This book has a potential to be a cornerstone for improving the clinical skills and is helpful not only for medical students, but also for residents and clinicians from medical field. The book is free of cost for anyone who is interested to opt for the field of rheumatology.



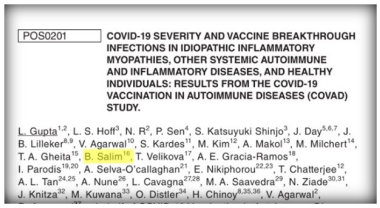
MOCK EXAMINATION

Clinical examination drills polish the necessary skills for not only the clinical practice, but are also fundamental for good performance in exams. In this regard, Rheumatology department of Fauji foundation hospital arranged a MOCK examination for FCPS trainees in Jan, 2022. Candidates joined from different institutes. External examiners from Shifa international hospital, PIMS and polyclinic were also invited for evaluation. Test assessed and guided the candidates in all formats of the CPSP exam; including written,

TOACs, short and long cases assessments. Numbers and grades were also assigned as per CPSP exam criteria. This effort was extremely helpful according to the candidates and was highly appreciated by the examiners.

ABSTRACT PUBLISHED

Vaccination has emerged as a powerful mode to curtail the rapidly spreading COVID-19 pandemic. Patients with autoimmune diseases are a special population, in whom there were a lot of reservations about the risk of vaccine adverse effects and its efficacy. An international study addressed this issue. The abstract of this work was published in "Annals of Rheumatic Disease" on 22nd May 2022. It is an honour that, from Pakistan Dr Babur Salim (Associate Professor, Department of Rheumatology) was one of the contributors to this immense work.



POS0201

COVID-19 SEVERITY AND VACCINE BREAKTHROUGH INFECTIONS IN IDIOPATHIC INFLAMMATORY MYOPATHIES, OTHER SYSTEMIC AUTOIMMUNE AND INFLAMMATORY DISEASES, AND HEALTHY INDIVIDUALS: RESULTS FROM THE COVID-19 VACCINATION IN AUTOIMMUNE DISEASES (COVAD) STUDY.

L. Gupta[1,2], L. S. Hoff[3], N. R[2], P. Sen[4], S. Katsuyuki Shinjo[3], J. Day[5,6,7], J. B. Lilleker[8,9], V. Agarwal[10], S. Kardes[11], M. Kim[12], A. Makol[13], M. Milchert[14], T. A. Gheita[15], B. Salim[16], T. Velikova[17], A. E. Gracia-Ramos[18], I. Parodis[19,20], A. Selva-O'callaghan[21], E. Nikiphorou[22,23], T. Chatterjee[12], A. L. Tan[24,25], A. Nune[26], L. Cavagna[27,28], M. A. Saavedra[29], N. Ziade[30,31], J. Knitza[32], M. Kuwana[33], O. Distler[34], H. Chinoy[8,35,36], V. Agarwal[2],

MUSCULOSKELETAL ULTRASOUND HANDS ON WORKSHOP

Physiotherapy department of fauji foundation hospital, Rawalpindi has started 'MS program in musculoskeletal physiotherapy' this year, in collaboration with rheumatology department. Hands on training and classes for musculoskeletal ultrasound are being provided to the participants by the consultant rheumatologists (Dr Babur Salim and Dr Saba Samreen).

PSR'S PRESENCE AT EULAR

PSR executive members attending

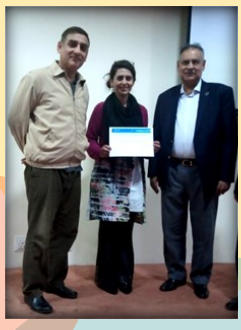
EULAR conference at Copenhagen (Denmark).

POSTER PRESENTATION AT EULAR

Dr Babur Salim (Associate professor, Fauji foundation hospital, Rwp) and his co authors presented poster at EULAR titled "COVID-19 severity and vaccine breakthrough infections in idiopathic inflammatory myopathies, other systemic autoimmune and inflammatory diseases and healthy individuals; Results from the COVID-19 vaccination in autoimmune diseases (COVAD) study."

PACES EXAM PARTICIPATION BY DR MARRIAM HUSSAIN (POSTGRADUATE RESIDENT IN RHEUMATOLOGY AT FFH, RWP)

Dr Marriam Hussain Awan, postgraduate resident in Rheumatology at Fauji Foundation Hospital, Rawalpindi has participated as a Registrar Coordinator at the 5th Membership of The Royal College of Physicians (MRCP, UK) PACES exam ,conducted by the Federation of Royal College of Physicians of the United Kingdom at Pak-Emirates Military Hospital Rawalpindi from 18th to 22nd May, 2022. She holds the distinction of being a member of the team at PEMH responsible for organizing the MRCP (UK) PACES exam since the first series of MOCK exams which have been followed by successful delivery of five official PACES exam.



PAKISTAN SOCIETY FOR RHEUMATOLOGY

PSR Silver Jubilee International Conference

SCAN ME

CONFERENCE HIGHLIGHTS

- Silver Jubilee Special State of the Art Lectures
- Scientific Symposia
- Poster Presentations
- Rheumatology Review Course

Untangling The Knots Of Rheumatology

PSR 25th

PSR ANNUAL INTERNATIONAL CONFERENCE

CONFERENCE HIGHLIGHTS

- Pre Conference Workshops
  - Pediatric Rheumatology
  - Musculoskeletal Radiology
  - Rheumatology for Family Physicians
- Rheumatology for the Specialists

21st-23rd October, 2022 | **PEARL CONTINENTAL HOTEL, LAHORE**

Abstract Submission Deadline **31st July, 2022**

Registration Deadline **1st Sep, 2022**

PATRON:
Prof. Nighat Mir Ahmad MD

CHAIR SCIENTIFIC COMMITTEE
Prof. Sumaira Farman Raja

CO-CHAIR SCIENTIFIC COMMITTEE
Prof. Muhammad Ahmed Saeed

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ASSESSMENT OF NEUROPATHIC PAIN IN PATIENTS WITH KNEE OSTEOARTHRITIS

Courtesy : Dr. Sarah Azam Shah

The topic for this article was conceptualized by Dr Taqdees Khaliq Head of Unit of Rheumatology Federal Government Polyclinic Hospital Islamabad and was conducted by her trainees i.e Dr Sarah Azam Shah and Dr Saad Saleem in the Rheumatology outpatient department in Federal Government Polyclinic Hospital. The aim was to look at the neuropathic component of pain in the patients of knee osteoarthritis which is the commonest cause of knee pain predominantly in the people above forty years age.

ABSTRACT:

OBJECTIVE:

Osteoarthritis in knee presents with pain which can have neuropathic component. **Douleur Neuropathique 4 Questions (DN4) questionnaire** was used to assess neuropathic component of pain.**Study design**: It was a cross sectional study design. **Place of study and duration**: Rheumatology clinic from July 2021 till December 2021.**Patients and Methods**: Conducted on 56 patients in the by using a consecutive non probability sampling technique. Fulfilment of American college of Rheumatology criteria for knee osteoarthritis was the inclusion criteria. Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) was used to assess pain, stiffness, and physical functional ability in the knees while the Douleur Neuropathique 4 (DN4) questionnaire was used to assess neuropathic pain. Kellgren-Lawrence (KL) grading system was used for radiological classification of knee osteoarthritis.

RESULTS:

Out of the 56 patients, female were 44(78.6%) and male were 12 (21.4%).The mean WOMAC total score in patients with neuropathy was 48.64±10.36. Neuropathic pain was found in 25(44.6%) of the study population. Their mean DN4 questionnaire neuropathy score was 4.64±0.81.A p value of 0.02, 0.004, 0.027, 0.003 and 0.01 on the spearman rho correlation was found between the total WOMAC score, radiographic grade, neuropathic pain, WOMAC functional score and WOMAC pain score respectively, showing a significant positive correlation. **CONCLUSION:** We conclude that in patients with osteoarthritis of the knees there was high percentage of patients having neuropathic pain and the DN4 questionnaire score correlated with the WOMAC total score and the functional and pain components.

KEY WORDS:

Douleur Neuropathique four questions (DN4), Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC), Kellgren and Lawrence grading (KL grading), Osteoarthritis

A NEW DIMENSION OF AN OLD AND ARDOUS CUSTOMER

Courtesy : Dr. Tabe Rasool

- Fibromyalgia is a common chronic syndrome that can cause widespread body pain, fatigue, and cognitive issues.
- The underlying cause has remained a mystery, although some research has hinted at the involvement of the immune system.

According to the CDC, close to 4 million adults in the United States have fibromyalgia, which equates to about 2% of the adult population. According to most estimates, 80% of people with the condition are female.

There is no cure and its management has been a difficult beast to tame for almost every rheumatologist, current treatment strategies revolve around relief of symptoms and include pain relief medication, antidepressants, and lifestyle changes, such as increasing physical activity levels and improving sleep habits.

Although researchers have not been sure exactly what causes fibromyalgia, there are some clues that the immune system might be responsible.

For example, people with lupus or rheumatoid arthritis, both of which are autoimmune disorders, are more likely than other people to develop the condition, but as yet there has been no direct evidence of autoimmunity in fibromyalgia.

A research team comprising scientists at King's College London and the University of Liverpool, both in the United Kingdom, and the Karolinska Institute in Stockholm, Sweden, now suggests that many fibromyalgia symptoms occur when the individual's antibodies increase the activity of pain-sensing nerves.

When the scientists injected antibodies from people with fibromyalgia into mice, the animals became more sensitive to unpleasant stimuli. They also became weaker and moved around less.(Fig:1)

In contrast, neither injections of antibodies from healthy controls nor serum from people with fibromyalgia with the antibodies removed had an effect on the mice.

The antibodies bound to cells in the dorsal root ganglia. These clusters of neurons relay sensory signals from the peripheral nervous system to the central nervous system(the brain and spinal cord).

"The implications of this study are profound," says David Andersson, Ph.D., who was the study's principal investigator at King's. He continues:

"Establishing that fibromyalgia is an autoimmune disorder will transform how we view the condition and should pave the way for more effective treatments for the millions of people affected."

Dr. Andreas Goebel, M.Sc., Ph.D., the study's principal investigator from the University of Liverpool, says that he expected some cases of fibromyalgia to be autoimmune when he initiated the study in the U.K.

"But David's team has discovered pain-causing antibodies in each recruited patient," he says. "The results offer amazing hope that the invisible, devastating symptoms of fibromyalgia will become treatable."

Antibodies from people with fibromyalgia appear to sensitize the nociceptors, which are nerves in the skin that send pain signals to the brain when they detect extremes of temperature and pressure or noxious chemicals.

The mice's symptoms resolved completely within 2–3 weeks of the animals clearing the human antibodies from their systems. This suggests that therapies that selectively reduce antibody levels in the bloodstream could be effective.

"The next step will be to identify what factors the symptom-inducing antibodies bind to," says Prof. Camilla Svensson, Ph.D., the study's principal investigator from the Karolinska Institute.

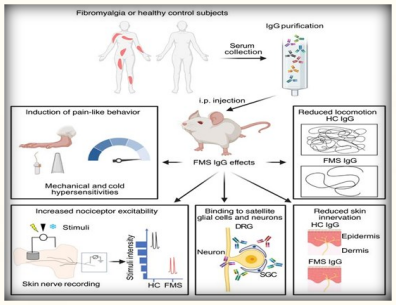
"This will help us not only in terms of developing novel treatment strategies for [fibromyalgia], but also of blood-based tests for diagnosis, which are missing today," she adds.

Therapeutic techniques already exist to reduce the overall level of antibodies in the bloodstream or to remove specific autoimmune antibodies. Alternatively, scientists could develop drugs that prevent these antibodies from binding to their targets.

Des Quinn, who chairs the charity Fibromyalgia Action UK, said that researchers had debated whether fibromyalgia is an autoimmune disorder for years.

He welcomed the new results but sounded a note of caution.
"If these results can be replicated and expanded upon, then the prospect of a biomarker or a new treatment for people with fibromyalgia would be extraordinary, "However, the results need further confirmation and investigation before the outcomes can be applied universally."

He noted that a diagnostic biomarker is desperately needed because some doctors still consider fibromyalgia a "**wastebasket diagnosis**" — the term for a vague, unproven diagnosis that has such a broad definition that it is scientifically meaningless.
"It would also be interesting to investigate how these findings relate to other symptoms of fibromyalgia — such as fatigue, sleep disturbance, and cognitive issues — as fibromyalgia impacts with more than just pain symptoms," he added.



(Fig:1) The Graphical Abstract (Sighted Above)

REFERENCES:

1.Passive transfer of fibromyalgia symptoms from patients to mice. The Journal of Clinical Investigation. Published July 1, 2021

DEPARTMENTAL ACTIVITIES OF RHEUMATOLOGY DEPARTMENT
LIAQUAT NATIONAL HOSPITAL & MEDICAL COLLEGE, KARACHI
Courtesy : Dr. Tahira Perveen Umer

The Department of Rheumatology at LNH is pleased to share with you all the activities held in the department.

TALK ON CONCEPTUALIZING THE AUTOIMMUNITY:

In May 2022 Dr. Lubna Nazir, presented a talk on "Conceptualize the Autoimmunity" at the Medicine and Allied ACCME of INDUS Hospital held on 21st May, 2022 at Indus Hospital, Korangi campus, Karachi. She highlighted the newer concepts of rheumatological conditions with special focus on difficult and unusual presentation of common autoimmune diseases.

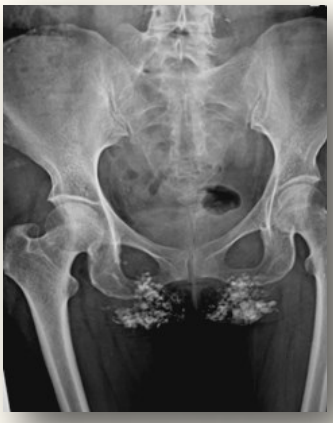
TALK ON ILIOFEMORAL DVT: INCIDENCE, RISK FACTORS & DIAGNOSTIC WORKUP:

Dr. Tahira Perveen Umer, presented a talk on "Incidence, Risk Factors & Diagnostic Workup for Iliofemoral DVT" at the Mini- Symposium on Iliofemoral DVT organized by Radiology Department of Liaquat National Hospital, held on 16th June, 2022 at Liaquat National Hospital, main branch, Karachi. During her presentation she emphasized on the need of early diagnostic workup in young patients with unprovoked DVT.

INTERESTING IMAGES
Courtesy : Fauji foundation hospital, Rawalpindi

CASE 1:

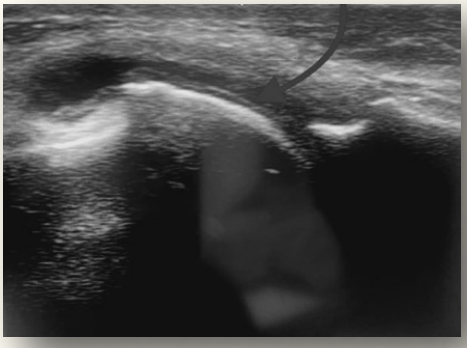
32 year old lady diagnosed as scleroderma for last 2.5 years, complained of pain in bilateral buttocks and difficulty sitting down due to it. Examination shower firm, well demarcated swelling without any signs of inflammation. What does the xray show?



Picture courtesy: Dr Haris Gul (Assist ant Professor, Rheumatology department, Fauji foundation hospital, Rawalpindi)

CASE 2:

30 years old male presented with acute onset of right first MTP joint pain with redness and swelling. Ultrasound image of the joint is shown. What is the sign depicted in the image called?



Picture courtesy: Dr Shahida Perveen (Registrar, Rheumatology department, Fauji Foundation hospital, Rawalpindi)

Answer on last page

LUPUS AWARENESS

Courtesy : Prof. Nighat Mir Ahmad

An awareness session to highlight and spread awareness on diagnosis and treatment of Lupus was organized by the Arthritis Care Foundation & Department of Medicine and Rheumatology, Fatima Jinnah Medical University/ Sir Ganga Ram Hospital, Lahore.

WARRIOR IN POOL

Courtesy : Prof. Nighat Mir Ahmad

Zayna Ahsan, a former patient and a friend of ACF wins national women(under 14)swimming championship.

Zayna Ahsan is a national age-group swimming champion who let no hurdle come between her and her dreams.

Despite being diagnosed with Juvenile Idiopathic Arthritis - an autoimmune disorder with no cure- at the age of two, this inspirational young girl remained steadfast in her pursuit to excel as an athlete.

During early misdiagnosis, Zayna developed a muscle contracture that resulted in leg discrepancy and a limp. If left untreated, the disease could cause permanent disability. This is when she started going to the pool for water therapy. What began with

learning how to float and basic swimming up until the age of ten, turned into an unswerving love for the sport. She underwent rigorous training and within two years, became an under-12 age-group champion in Punjab.

Zayna Ahsan has bravely faced physical challenges that most children her age don't even know about.

Her commendable determination and courage led her to achieve an exceptional feat and at MM Talks Junior, she shares this journey. She has set a great example for the youth; to overcome challenges in life with faith and never stop believing in yourself.

PAK-AMERICAN ARTHRITIS CENTRE—PAC

Courtesy : Dr. Saliha Ishaq

Arthritis is the problem of all ages. It can affect mainly joints but can also harm heart, eyes, lungs, kidneys and skin. Right diagnosis and timely treatment can prevent serious damages.

Ehad in collaboration with Dr. Saliha Ishaq - Project Director PAC (Consultant Rheumatologist at South City Hospital) along with group of rheumatologists from Karachi, took an initiative and started collaborative consultation clinics in all over Karachi. The eminent team members are as follows Dr. Tahira Perveen Umer (Assistant Professor and Head-Department of Rheumatology, Liaquat National Hospital), Dr. Tabe Rasool (Assistant Professor at DUHS-Ohja campus), Dr. Hamza Alam (Consultant Rheumatologist, Patel Hospital), Dr. Ashar Ekhlaq Ahmed (Consultant Rheumatologist at Ziauddin Hospital), Dr. Sumera Ghani (Consultant Rheumatologist at Ramedial Hospital) , Dr. Roshila Shamim (Consultant Rheumatologist) and Dr Ranjeet Kumar (Consultant Orthopaedic and trauma surgeon) are among the expert panelist.

This initiative was started to educate and spread the knowledge to normal public to reach out and understand rheumatological disorders and get specialized treatment..

NEXT ISSUE OF Newsletter

We are planning to publish the next issue in October 2022, In sha Allah Taala.

Please send us your departmental activities from June 2022 till September 2022, including titles of research papers published in National and International Journals.

The write-ups for the news and happenings in your Rheumatology department should be upto 100 words, each research highlight upto 200 words, summarized latest guidelines for any Rheumatic disease management upto 300 words and case report upto 400 words.

We would also appreciate receiving interesting quiz and images with two liner description.

Send your write-ups latest by **05 September, 2022** at the following addresses:

Tahira.Perveen@lnh.edu.pk
Humza.Masood@lnh.edu.pk
Drhamza84@gmail.com

Quiz Answer:

Answer: Scleroderma with

Image 1: Sclerodactyly

Image 2: Matted telangiectasia

Image 3: Telangiectasia under the tongue

Image 4: Nailfold capillary changes.

Interesting Images

Answer:

Case 1: Calcinosis cutis

Case 2: Double contour sign of gout

Thank You

In case of any query regarding the newsletter, please feel free to contact us at the below mentioned emails.

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