

**11<sup>th</sup> Annual Congress  
of Iranian Rheumatology Association**

**ABSTRACT BOOK**



**25<sup>th</sup>–27<sup>th</sup> October 2017  
Tehran, Iran**

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## WELCOME MESSAGE

### In The Name of Allah

It is my pleasure that our colleagues are all together in the 11<sup>th</sup> of Iranian Rheumatology Association (IRA) congress to have scientific discussions and visit each other. This causes more union and affinity among our members and under the protection of this union, today our patients have better chances of diagnosis and treatments. It is also my pleasure to apprise that the journal of IRA named “Rheumatology Research” is published regularly with high quality. Recently with have its 1st Issue of volume 3 (2018) online.

This achievement was not accessible without your valuable support and we need this support and cooperation in the continuation of our own journal.

Please allow me to express my hearty thanks to the editor manager, assistant editor, and valuable reviewers of the journal for their endless perseverance.

It is also my duty to thank the respectable secretary of IRA and scientific secretary of congress for their excellent engineering.

Welcome again to your own congress, wishing you all the best throughout your career.



### Best Regards

Professor Ahmadreza Jamshidi, M.D  
President of Iranian Rheumatology Association  
President of the 11<sup>th</sup> Annual Congress of  
Iranian Rheumatology Association

## WELCOME MESSAGE

Dear Colleague and friends

It is my honor to welcome all the speakers and participants to attend the 11<sup>th</sup> Iranian Rheumatology Association congress in Tehran.

The 11<sup>th</sup> Iranian Rheumatology association congress being organized to combine cutting-edge scientific program where developing trends complement existing scientific Data, both in basic and clinical science.

Our goal was presenting current advances and new challenges in most important diseases in our region. There are more than 57 speakers from all the state of Iran. You will satisfy during whole 3 days of Congress with the latest data and experiment in Rheumatology. The Congress has 15+6 scientific points for all participants.

I hope joining your friends and colleagues from around Iran is an academically stimulating and intellectually enriching event in this Congress. Indeed, we will open new windows for all patients who suffer from musculoskeletal pain.

Enjoy the fall weather of Tehran in the national library.



Dr. S. Soroosh  
Scientific Secretary of the 11<sup>th</sup> Iranian  
Rheumatology Association Congress

## Life History

**Gholam Ali Nasseh, M.D.**

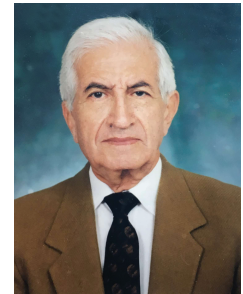
*Full Professor of Internal Medicine*

**Professor of Rheumatology and Pediatric Rheumatology**

**Professional experience highlights:**

Post-doctoral training

- Junior house office (resident)
  - Imam Reza teaching hospital 1960
  - Ham Green Hospital, Bristol England 1960
  - St Thomas Hospital, Akron Ohio 1961-1968
- Assistant professor in internal medicine
  - Mashad Medical School 1963
- Associate professor internal medicine 1967
- Secretary General, Mashad University 1967
- Editor in Chief, Mashad Journal
  - Mashad Medical school 1967
- Associate Professor of Internal Medicine 1967
- Rheumatology Specialist, Lausanne, Switzerland 1972
- Pediatric Rheumatology Training
  - Hammer Smith Hospital, Taflow MRC unit  
(Canadian Red Cross Hospital)  
Under Professor Eric Bywaters  
Dr. Barbara Ansell 1973-1974
- Elected Active member
  - New York Academy of Science 1973
- Delivered Several Lectures on Rheumatic Fever, notably in APLAR congress Baly Indonesia
- Author of two compendium on Rheumatic diseases 1967-2014
  - Dean of the school of medicine and vice chancellor of Medical Affairs  
Ferdowsi University, Mashad
- Vice chancellor of teaching and research affairs, ferdowsi University, mashad 1977-1978
- I.A. MAT coordinator in Iran  
(A section of the United Nation)



## COMMITTEES

**Congress President:** Ahmadreza Jamshidi, M.D (*Iran*) - *Rheumatology*

**Secretary:** Sousan Soroosh, M.D (*Iran*) - *Rheumatology*

## SCIENTIFIC COMMITTEE

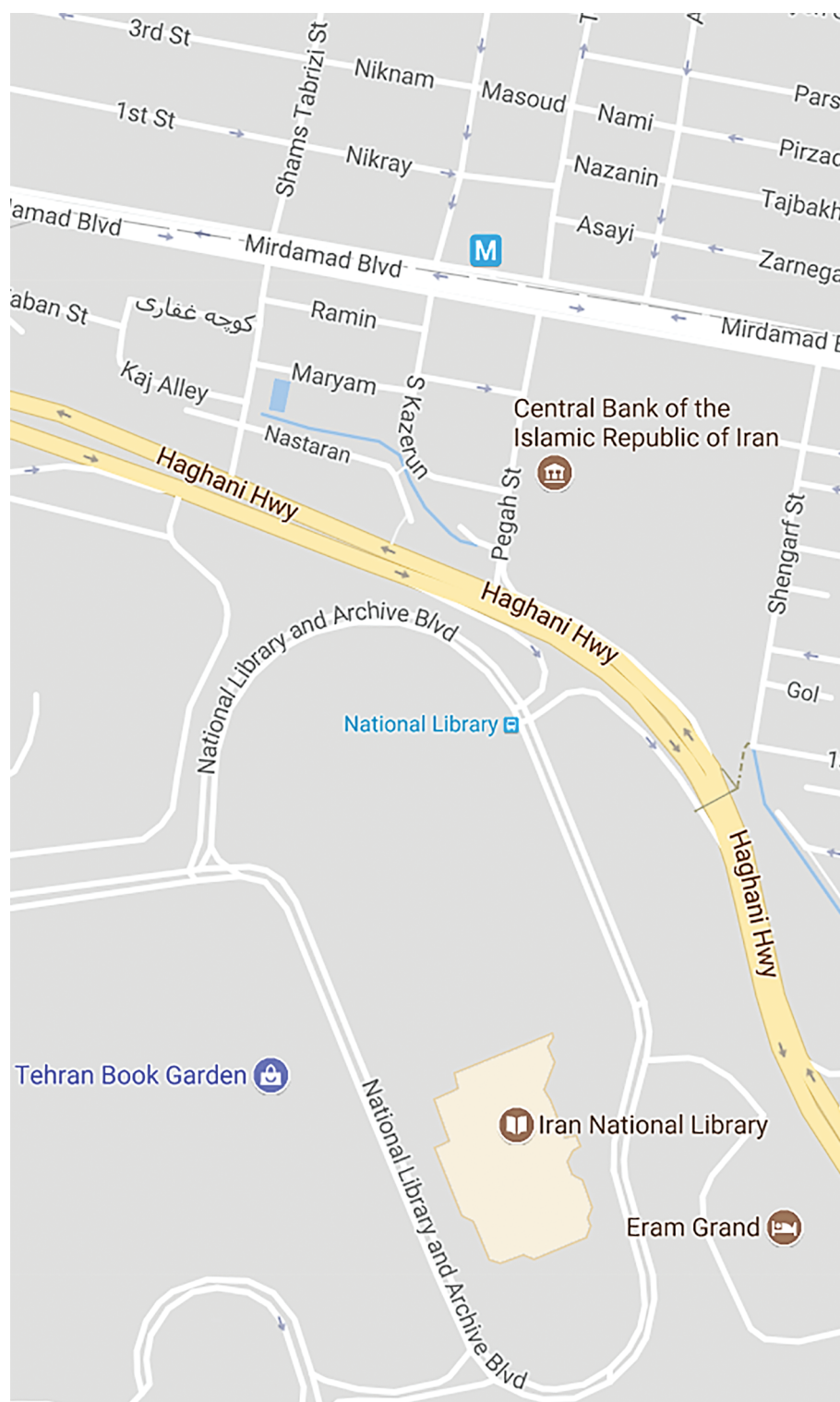
Nazanin Adib ( <i>Iran</i> ) - <i>Ophthalmology</i>	Gholamali Nasseh ( <i>Iran</i> ) - <i>Pediatric Rheumatology</i>
Yahya Aghighi ( <i>Iran</i> ) - <i>Pediatric Rheumatology</i>	Mohammad Bagher Owlia- ( <i>Iran</i> ) - <i>Rheumatology</i>
Mahmoud Akbarian ( <i>Iran</i> ) - <i>Rheumatology</i>	Mohammadhosein Pourgharib ( <i>Iran</i> ) - <i>Sport Medicine</i>
Ahad Azami ( <i>Iran</i> ) - <i>Rheumatology</i>	Hadi Pourmoghim ( <i>Iran</i> ) - <i>Rheumatology</i>
Fereydoun Davatchi ( <i>Iran</i> ) - <i>Rheumatology</i>	Reza Raees Karami ( <i>Iran</i> ) - <i>Pediatric Rheumatology</i>
Mohammad mahdi Emam ( <i>Iran</i> ) - <i>Rheumatology</i>	Alireza Rajaei ( <i>Iran</i> ) - <i>Rheumatology</i>
Alimohammad Fatemi ( <i>Iran</i> ) - <i>Rheumatology</i>	Zahra Rezaee Yazdi ( <i>Iran</i> ) - <i>Rheumatology</i>
Maryam Gharavi ( <i>Iran</i> ) - <i>Rheumatology</i>	Abdolrahman Rostamian ( <i>Iran</i> ) - <i>Rheumatology</i>
Mehrzad Hajaliloo ( <i>Iran</i> ) - <i>Rheumatology</i>	Alireza Sadeghi ( <i>Iran</i> ) - <i>Rheumatology</i>
Asghar Hajabbasi ( <i>Iran</i> ) - <i>Rheumatology</i>	Ahmad Saedi ( <i>Iran</i> ) - <i>Nutrition</i>
Anousheh Haghighi ( <i>Iran</i> ) - <i>Rheumatology</i>	Ahmad Salimzadeh ( <i>Iran</i> ) - <i>Rheumatology</i>
Amirpezhman Hashemi ( <i>Iran</i> ) - <i>Rheumatology</i>	Masoud Soheilian ( <i>Iran</i> ) - <i>Ophthalmology</i>
Ahadreza Jamshidi, ( <i>Iran</i> ) - <i>Rheumatology</i>	Farhad Shahram ( <i>Iran</i> ) - <i>Rheumatology</i>
Ali Javadzadeh ( <i>Iran</i> ) - <i>Rheumatology</i>	Hormoz Shams ( <i>Iran</i> ) - <i>Ophthalmology</i>
Hassan Jokar ( <i>Iran</i> ) - <i>Rheumatology</i>	Irandoht Shenavar ( <i>Iran</i> ) - <i>Rheumatology</i>
Mohammadreza Hatef ( <i>Iran</i> ) - <i>Rheumatology</i>	Saeedeh Shenavandeh ( <i>Iran</i> ) - <i>Rheumatology</i>
Hadi Karimzadeh ( <i>Iran</i> ) - <i>Rheumatology</i>	Reza Shiari ( <i>Iran</i> ) - <i>Pediatric Rheumatology</i>
Nahid Kianmehr ( <i>Iran</i> ) - <i>Rheumatology</i>	Fatemeh Shirani ( <i>Iran</i> ) - <i>Rheumatology</i>
Zahra Mirfeizi ( <i>Iran</i> ) - <i>Rheumatology</i>	Mohsen Soroush ( <i>Iran</i> ) - <i>Rheumatology</i>
Mohammad Moslemizadeh ( <i>Iran</i> ) - <i>Rheumatology</i>	Sousan G.soroush ( <i>Iran</i> ) - <i>Rheumatology</i>
Maryam Moghadasi, ( <i>Iran</i> ) - <i>Rheumatology</i>	Arash Tehrani ( <i>Iran</i> ) - <i>Epidemiology</i>
Karim Mowla ( <i>Iran</i> ) - <i>Rheumatology</i>	Mohammad Zarei ( <i>Iran</i> ) - <i>Ophthalmology</i>
Abdolhadi Nadji ( <i>Iran</i> ) - <i>Rheumatology</i>	Vahid Ziaei ( <i>Iran</i> ) - <i>Pediatric Rheumatology</i>
Mohammadali Nazarinia ( <i>Iran</i> ) - <i>Rheumatology</i>	Moghdeh Zabihi ( <i>Iran</i> ) - <i>Rheumatology</i>

## ORGANIZING COMMITTEE

Mohsen Soroush M.D.

Marjan Khademian

## ACCESS MAP





# TIME TABLE

	7:30	8:00	9:00	10:00	11:00	12:00	13:00	13:30	
October 25 (Weds.)	Scientific Program	Registration	Opening Ceremony	Special Lecture - Treatment of Oculobehcet's disease Chair: Dr. Farhad Shahram Lecturer: Dr. Fereydoun Davatchi Panel for Questions and Answers	Scientific Session 1- Oral Presentations Co-Chairs: Dr. Mohammadbagher Owlia, Dr. Arash Tehrani (6 presentations - each presentation 10 minutes)	Poster Presentation	Coffee Break	Scientific Session 2 -Challenges of Eye Problems and Rheumatology Chair: Dr. Fereydoun Davatchi, Dr. Hormoz Shams, Dr. Farhad Shahram, Dr. Masoud Soheilian, Dr. Nazanin Adib, Dr. Mohammad Zarei S2-1: Antimalarials and eye - Dr. Hormoz Shams S2-2: Eye Inflammations as the First Manifestation of Rheumatic Disorders - Dr. Masoud Soheilian S2-3: Eye Treatment Protocols - Dr. Nazanin Adib S2-4: What is the Process When Refer for Screening Eye Involvement - Dr. Mohammad Zarei Panel for Questions and Answers	Prayers and Lunch Break
	Place	Registration Pavilion (Ground Floor)	Ghalam Hall (Ground Floor)	Ghalam Hall (Ground Floor)	Ghalam Hall (Ground Floor)	Ground Floor	Break Room (Ground Floor)	Ghalam Hall (Ground Floor)	Ziafat Hall (Underground Floor)
October 26 (Thurs.)	Scientific Program		Scientific Session 5 - Undifferentiated Connective Tissue Diseases: (MCTD and Overlap Syndromes) Co-Chairs: Dr. Zahra Rezaee Yazdi, Dr. Mohammadreza Hatef, Dr. Hadi Poormoghim, Dr. Ali Mohammad Fatemi, Dr. Zahra Mirfeizi, Dr. Hassan Jokar, Dr. Alireza Sadeghi S5-1: Classification and Criteria- Dr. Alireza Sadeghi S5-2: Clinical Approach and Diagnostic Tests- Dr. Alimohammad Fatemi	Annual Meeting of Iranian Rheumatology Association <div>S5-3: Management &amp; Treatment- Dr. Zahra Mirfeizi Panel for Questions and Answers</div>	Poster Presentation	Coffee Break	Scientific Session 4- Osteoporosis Chair: Dr. Mohammadmahdi Emam, Dr. Mohammad Moslemizadeh, Dr. Hadi Karimzadeh, Dr. Alireza Rajaei, Dr. Anahita Amirpour, Dr. Arman Ahmadzadeh S4-1: Role of TBS in Diagnosis and Treatment- Dr. Alireza Rajaei S4-2: Treatment of Osteoporosis in certain situations- Dr. Mohammadmahdi Emam S4-3: Treatment of Resistant Osteoporosis- Dr. Anahita Amirpour S4-4: Novel Treatments of Osteoporosis - Dr. Arman Ahmadzadeh		
	Place		Ghalam Hall (Ground Floor)	Ghalam Hall (Ground Floor)	Ground Floor	Break Room (Ground Floor)	Ghalam Hall (Ground Floor)		
October 27 (Fri.)	Scientific Program		Scientific Session 7- Low Back Pain Co-Chairs: Dr. Asghar Hajabbasi, Dr. Abdolhadi Nadji, Dr. Ahad Azami, Dr. Karim Mowla, Dr. Mohammadali Nazarinia, Dr. Irandokht Shenavar S7-1: Epidemiology and classification of Low back pain- Dr. Asghar Hajabbasi S7-2: Diagnostic Approach to low back pain- Dr. Karim Mowla S7-3: Non-medical Treatment - Dr. Mohammadali Nazarinia S7-4: Drug Treatment- Dr. Irandokht Shenavar Panel for Questions and Answers	Poster Presentation	Coffee Break	Scientific Session 8 - Vasculitis Mimickers Co-Chairs: Dr. Mahmoud Akbarian, Dr. Fatemeh Shirani, Dr. Mehrzad Hajaliloo, Dr. Ali Javadzadeh, Dr. Nahid Kianmehr, Dr. Mozhdeh Zabihyeganeh S8-1: Vasculitis & Malignancies- Dr. Ali Javadzadeh S8-2: Vessel Wall abnormalities & Vasculitis- Dr. Fatemeh Shirani S8-3: Infection Induced Vasculitis- Dr. Nahid Kianmehr S8-4: Drug induced Vasculitis- Dr. Mozhdeh Zabihyeganeh Panel for Questions and Answers	Closing Ceremony	Prayers and Lunch Break	
	Place		Ghalam Hall (Ground Floor)	Ground Floor	Break Room (Ground Floor)	Ghalam Hall (Ground Floor)	Ghalam Hall (Ground Floor)	Ziafat Hall (Underground Floor)	

13:30	14:00	15:00	16:00	17:00	18:00
Ziafat Hall (Underground Floor)	Prayers and Lunch Break	<b>Scientific Session 3- Diagnosis of Ankylosing Spondylitis</b> <b>Co-Chairs:</b> Dr. Ahmadrza Jamshidi, Dr. Maryam Moghaddasi, Dr. Anousheh Haghighi, Dr. Ahmad Salimzadeh, Dr. Amirpezhman Hashemi, Dr. Soosan Soroosh <b>S3-1: Symptoms &amp; Lab Tests -</b> Dr. Ahmad Salimzadeh <b>S3-2: Radiology -</b> Dr. Amirpezhman Hashemi <b>S3-3: Diagnostic Criteria -</b> Dr. Soosan Soroosh <b>Panel for Questions and Answers</b>	<b>Workshop 2 - Capplaroscopy</b> Dr. Saeedeh Shenavandeh	Classroom (Ground Floor)	
Ziafat Hall (Underground Floor)	Prayers and Lunch Break	<b>Scientific Session 6 - Pediatric Rheumatology Symposium: Non inflammatory Musculoskeletal pain</b> <b>Co-Chairs:</b> Dr. Yahya Aghighi, Dr. Gholamali Naseh, Dr. Vadud Javadi, Dr. Reza Raees Karami, Dr. Vahid Ziaei, Dr. Reza Shiari <b>S6-1: Benign Hypermobility Syndrome-</b> Dr. Vadud Javadi <b>S6-2: Common Overuse Injuries-</b> Dr. Reza Raees Karami <b>S6-3: Back Pain in Children-</b> Dr. Vahid Ziaei	<b>Workshop3: Bone Densitometry</b> Dr. Alireza Rajaei  <b>Patients Education Session - Osteoporosis</b> <b>Chair:</b> Dr. Mohsen Soroush, Dr. Abdolrahman Rostamian <b>E1-1: Diet and Osteoporosis -</b> Dr. Ahmad Saedi <b>E1-2: Excercise and Osteoporosis -</b> Dr. Mohammadhosein Pourgharib <b>E1-3: Diagnosis and Medical Treatment -</b> Dr. Maryam Gharavi <b>Panel for Questions and Answers</b>	Classroom (Ground Floor)	<b>S6-4: Limping in Children -</b> Dr. Reza Shiari <b>Panel for Questions and Answers</b>
Ziafat Hall (Underground Floor)	Prayers and Lunch Break	Criminals and Physician's Responsibilities			
Ziafat Hall (Underground Floor)		(First Floor)			

## SCIENTIFIC PROGRAM

**Wednesday, October 25**7:30-8:00 **Registration**8:00-8:30 **Opening Ceremony**8:30-9:30 **Special Lecture – Treatment of Oculobehcet's disease****Chair:** Farhad Shahram, M.D.*Professor of Rheumatology, Rheumatology Research Center, Tehran University of Medical Science, Iran***Lecturer:** Fereydoun Davatchi, M.D.*Professor of Rheumatology, Rheumatology Research Center, Tehran University of Medical Science, Iran***Panel for Questions and Answers**9:30-10:30 **Scientific Session 1-Oral Presentations****Co-Chairs:** Mohammadbagher Owlia M.D. Arash Tehrani, M.D, PHD**Mohammadbagher Owlia, M.D***Professor of Rheumatology, Yazd University of Medical Science, Iran***Arash Tehrani, M.D, PHD***Assistant Professor of Epidemiology Iran University of Medical Science, Iran***S1-1 Adjusting FRAX® on TBS for Identification of Subjects at High Risk of Fractures****Mozhdeh Zabihyeganeh, M.D.***Bone and Joint Reconstruction Research Center, Shafa Orthopedic Hospital, Iran University of Medical Sciences, Tehran, Iran***S1-2 Our Requests' Imaging for Low Back Pain; Are They Reasonable?***Our requests' imaging for low back pain; are they reasonable?***Mohsen G. Soroush, M.D.***Rheumatologist, rheumatology unit, AJA University of medical sciences, Tehran, Iran***S1-3 Childhood Primary Arteritis of CNS, Ten Years Experience in a Pediatric Rheumatology Clinic****Farhad Salehzadeh M.D.***Professor in Pediatric Rheumatology, Pediatric, Department Ardabil University of Medical Sciences (ARUMS)***S1-4 Beneficial Effect of Serum Ferritin on Postmenopausal Bone Mass****Dr Mansour Babaei, M.D.***Department of Internal medicine, Division of Rheumatology, Mobility impairment research center, Babol University of Medical Sciences, Babol, Iran.***S1-5 Super Antigen Tracking in Blood and Synovial Fluid of Rheumatoid arthritis Patients: A Comparative Study****Ramezanali Ali Ataee, M.D.***Professor in Department of Medical Microbiology, Faculty of Medicine, Baqiyatallah University of Medical Sciences, Tehran, I.R. Iran***S1-6 Efficacy of Knee Muscles Strengthening Exercises on Clinical Responses and Outcomes in Patients with Knee Osteoarthritis****Alireza Sadeghi, M.D.***Department of Internal Medicine, Zanjan University of Medical Sciences, Zanjan, Iran*



10:30-11:00 **Poster presentation and Coffee Break**

11:00-13:00 **Scientific Session 2 –Challenges of Eye Problems and Rheumatology**

**Chair:** Fereydoun Davatchi, M.D. Hormoz Shams, M.D. Farhad Shahram, M.D.

**Fereydoun Davatchi, M.D.**

*Professor of Rheumatology, Rheumatology Research Center, Tehran University of Medical Science, Iran*

**Farhad Shahram, M.D.**

*Professor of Rheumatology, Rheumatology Research Center, Tehran University of Medical Science, Iran*

**S2-1 Antimalarials and eye**

**Hormoz Shams, M.D.**

*Professor of Ophthalmology Member of the Board at Iranian Society of Ophthalmology, Professor, Tehran Medicine Sciences University, Iran.*

**S2-2 Eye Inflammations as the First Manifestation of Rheumatic Disorders**

**Masoud Soheilian, M.D.**

*Professor of Ophthalmology, Shahid Beheshti University of Medical Sciences, Tehrān, Iran*

**S2-3 Eye Treatment Protocols**

**Nazanin Adib, M.D.**

*Ophthalmologist, Tehran university of medical sciences, Iran.*

**S2-4 What is the Process When Refer for Screening Eye Involvement**

**Mohammad Zarei, M.D.**

*Assistant Professor of Ophthalmology, Eye Research Center, Tehran University of Medical Sciences, Iran.*

**Panel for Questions and Answers**

13:00-14:00 **Prayers and Lunch Break**

14:00-16:00 **Scientific Session 3- Diagnosis of Ankylosing Spondylitis**

**Co-Chairs:** Ahmadreza Jamshidi, M.D. Maryam Moghaddasi, M.D. Anousheh Haghighi, M.D.

**Ahadreza Jamshidi, M.D.**

*Professor of Rheumatology, Rheumatology Research Center, Tehran University of Medical Science, Iran*

**Maryam Moghaddasi, M.D.**

*Associate Professor of Rheumatology, Tehran University of Medical Science, Iran*

**Anousheh Haghighi, M.D.**

*Associate Professor of Rheumatology, Iran University of Medical Science, Iran*

**S3-1 Symptoms & Lab Tests**

**Ahmad Salimzadeh, M.D.**

*Associate Professor of Rheumatology, Tehran University of Medical Science, Iran*

**S3-2 Radiology**

**Amirpezhman Hashemi, M.D.**

*Assistant Professor of Radiology, Tehran University of Medical Sciences, Tehran, Iran*

**S3-3 Diagnostic Criteria**

**Soosan Soroosh, M.D.**

*Associate Professor of Rheumatology, Aja University of Medical Sciences, Tehran, Iran*

**Panel for Questions and Answers**

**16:00-18:00 Workshop 1 – Capillaroscopy****Saeedeh Shenavandeh, M.D.***Department of Internal Medicine, Division of Rheumatology, Shiraz University of Medical Sciences, Shiraz, Iran***Thursday, October 26****8:00-9:30 Scientific Session 4– Undifferentiated Connective Tissue Diseases: (MCTD and Overlap Syndromes)****Co-Chairs:** Zahra Rezaee Yazdi, M.D. Mohammadreza Hatef, M.D. Hadi Poormoghim M.D.**Zahra Rezaee Yazdi, M.D.***Professor of Rheumatology, Mashahd University of Medical Science, Iran***Mohammadreza Hatef, M.D.***Professor of Rheumatology, Mashahd University of Medical Science, Iran***Hadi Poormoghim, M.D.***Professor of Rheumatology, Isfahan University of Medical Science, Iran***Hassan Jokar, M.D.***Rheumatologist, Mashahd University of Medical Sciences, Iran***S4-1 Classification and Criteria****Alireza Sadeghi, M.D.***Rheumatologist Department of Internal Medicine, Zanjan University of Medical Sciences, Zanjan, Iran***S4-2 Clinical Approach and Diagnostic Tests****Alimohammad Fatemi, M.D.***Assistant of Rheumatology, Isfahan University of Medical Science, Iran***S4-3 Management & Treatment****Zahra Mirfeizi, M.D.***Rheumatic Diseases Research Center, School of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran***Panel for Questions and Answers****9:30-11:00 Annual Meeting of Iranian Rheumatology Association****11:00-11:30 Poster presentation and Coffee Break****11:30-13:30 Scientific Session 5– Osteoporosis****Chair:** Mohammadmahdi Emam, M.D. Mohammad Moslemizadeh, M.D. Hadi Karimzadeh, M.D.**Mohammadmahdi Emam, M.D.***Assistant Professor of Rheumatology, Shahid Beheshti University of Medical Sciences, Iran***Mohammad Moslemizadeh, M.D.***Assistant Professor of Rheumatology, Shahid Beheshti University of Medical Sciences, Iran***Hadi Karimzadeh, M.D.***Associate Professor of Rheumatology, Isfahan University of Medical Sciences, Iran***S5-1 Role of TBS in Diagnosis and Treatment****Alireza Rajaei, M.D.***Associate Professor of Rheumatology, Shahid Beheshti University of Medical Sciences, Iran***S5-2 Treatment of Osteoporosis in certain situations****Mohammadmahdi Emam, M.D.***Assistant Professor of Rheumatology, Shahid Beheshti University of Medical Sciences, Iran***S5-3 Treatment of Resistant Osteoporosis****Anahita Amirpour, M.D.***Assistant Professor of Rheumatology, Shahid Beheshti University of Medical Sciences, Iran*

- S5-4 Novel Treatments of Osteoporosis**  
**Arman Ahmadzadeh, M.D.**  
*Associate Professor of Rheumatology, Shahid Beheshti University of Medical Sciences, Iran*  
**Panel for Questions and Answers**
- 13:30-14:30 **Prayers and Lunch Break**
- 14:30-16:00 **Scientific Session 6 –Pediatric Rheumatology Symposium: Non inflammatory Musculoskeletal pain**  
**Co-Chairs: Yahya Aghighi, M.D. Gholamali Naseh, M.D.**  
**Gholamali Naseh, M.D.**  
*Professor Of Pediatrics, Mashahd University Medical Sciences, Iran*  
**Yahya Aghighi, MD**  
*Professor Of Pediatrics, Tehran University Medical Sciences, Iran*
- S6-1 Benign Hypermobility Syndrome**  
**Vadud Javadi, M.D.**  
*Pediatric Rheumatology, Shahid Beheshti University of Medical Sciences, Iran*
- S6-2 Common Overuse Injuries**  
**Reza Raees Karami, M.D.**  
*Assistant Professor of Pediatric Rheumatology, Tehran University of Medical Sciences, Iran*
- S6-3 Back Pain in Children**  
**Vahid Ziaei, M.D.**  
*Assistant Professor of Pediatric Rheumatology, Tehran University of Medical Sciences, Iran*
- S6-4 Limping in Children**  
**Reza Shiari, M.D.**  
*Associate Professor of Pediatric Rheumatology, Shahid Beheshti University of Medical Sciences, Iran*  
**Panel for Questions and Answers**
- 16:00-18:00 **Workshop2: Bone Densitometry**  
**Alireza Rajaei, M.D.**  
*Associate Professor of Rheumatology, Shahid Beheshti University of Medical Sciences, Iran*
- 16:00-18:00 **Patients Education Session – Osteoporosis**  
**Chair: Mohsen Soroush, M.D. Abdolrahman Rostamian, M.D.**  
**Mohsen Soroush, M.D.**  
*Associate Professor of Rheumatology, Aja University of Medical Sciences, Tehran, Iran*  
**Abdolrahman Rostamian, M.D.**  
*Associate Professor of Rheumatology, Tehran University of Medical Sciences, Tehran, Iran*
- E1-1 Diet and Osteoporosis**  
**Ahmad Saedi, M.D.**  
*Associate Professor of Nutrition, Tehran University of Medical Sciences, Iran*
- E1-2 Exercise and Osteoporosis**  
**Mohammadhosein Pourgharib, M.D.**  
*Assistant Professor of Sports and Exercise, Tehran University of Medical Sciences, Iran*
- E1-3 Diagnosis and Medical Treatment**  
**Maryam Gharavi, M.D.**  
*Assistant Professor of Rheumatology, Aja University of Medical Sciences, Tehran, Iran*  
**Panel for Questions and Answers**

**Friday, October 27****8:00-10:00 Scientific Session 7- Low Back Pain****Co-Chairs:** Asghar Hajabbasi, M.D. Abdolhadi Nadji, M.D. Ahad Azami, M.D.**Abdolhadi Nadji, M.D.***Professor of Rheumatology, Tehran University of Medical Science, Iran***Ahad Azami, M.D.***Associate Professor of Rheumatology, Tabriz University of Medical Sciences, Iran***S7-1 Epidemiology and classification of Low back pain****Asghar Hajabbasi, M.D.***Professor of Rheumatology, Gilan University of Medical Science, Iran***S7-2 Diagnostic Approach to low back pain****Karim Mowla, M.D.***Associate Professor of Rheumatology, Ahvaz University of Medical Sciences, Iran***S7-3 Non-medical Treatment****Mohammadali Nazarinia, M.D.***Associate Professor of Rheumatology, Shiraz University of Medical Sciences, Iran***S7-4 Drug Treatment – Irandokht Shenavar M.D.***Associate Professor of Rheumatology, Gilan University of Medical Sciences, Iran***Panel for Questions and Answers****10:00-10:30 Coffee Break and poster presentation****10:30-12:30 Scientific Session 8-Vasculitis Mimickers****Co-Chairs:** Mahmoud Akbarian M.D. Fatemeh Shirani M.D. Mehrzad Hajaliloo M.D.**Mahmoud Akbarian, M.D.***Professor of Rheumatology, Tehran University of Medical Science, Iran***Mehrzad Hajaliloo, M.D.***Associate Professor of Rheumatology, Tabriz University of Medical Sciences, Iran***S8-1 Vasculitis & Malignancies****Ali Javadzadeh, M.D.***Professor of Rheumatology, Iran University of Medical Science, Iran***S8-2 Vessel Wall abnormalities & Vasculitis****Fatemeh Shirani, M.D.***Associate Professor of Rheumatology, Iran University of Medical Sciences, Iran***S8-3 Infection Induced Vasculitis****Nahid Kianmehr, M.D.***Associate Professor of Rheumatology, Iran University of Medical Sciences, Iran***S8-4 Drug induced Vasculitis****Moghdeh Zabihi, M.D.***Assistant Professor of Rheumatology, Iran University of Medical Sciences, Tehran, Iran***Panel for Questions and Answers**

## POSTER PRESENTATIONS

### Wednesday, October 25

**P1-1 The Simplified Easy-to-use Fibromyalgia Diagnostic Model: Analytical and Clinical Validation**

Banafsheh Ghavidel-Parsa<sup>1</sup>, Ali Bidari<sup>2</sup>, Amir Hassankhani<sup>3</sup>, Asghar Hajiabbasi<sup>1</sup>, Sajjad Hosseini<sup>3</sup>, Babak Ghalehbaghi<sup>4</sup>, Omid Sanaei<sup>5</sup>

<sup>1</sup> Rheumatology Research Center, Razi Hospital, School of Medicine, Guilan University of Medical Sciences, Rasht, Iran

<sup>2</sup> Department of Rheumatology, Iran University of Medical Sciences, Tehran, Iran

<sup>3</sup> Medical student, Student Research Center, Guilan University of Medical Sciences, Rasht, Iran

<sup>4</sup> Allergist and clinical immunologist, Otolaryngology and Head and Neck Surgery Research Center, Iran University of Medical Sciences, Tehran, Iran

<sup>5</sup> Division of Gastroenterology and Hepatology, Johns Hopkins Medical Institutions, Baltimore, MD, USA

**P1-2 Correlation of Systemic Lupus Erythematosus Disease Activity (SLEDAL) with Serum Level of Albumin in Lupus Patients**

Maryam Masinaei<sup>1</sup>, Mitra Najarzadeh Shahri<sup>1</sup>, Abbas Ali Zeraati<sup>2</sup>, Bahare Asgharzadeh<sup>1</sup>, Zhaleh Shariati Sarabi<sup>\*1</sup>

<sup>1</sup> Rheumatic Diseases Research Center, Mashhad University Of Medical Sciences, Mashhad, Iran

<sup>2</sup> Internal Department, Emam Reza Hospital, Mashhad University Of Medical Sciences, Mashhad, Iran

**P1-3 Evaluating Effect of Helicobacter Pylori Eradication on Activity of Rheumatoid Arthritis**

Saeed Dolatshahi<sup>1</sup>, Bahareh Asgharzadeh<sup>1</sup>, Mohammadreza Sheikhiyan<sup>2</sup>, Mitra Najarzadeh Shahri<sup>1</sup>, Zhaleh Shariati Sarabi<sup>\*1</sup>

<sup>1</sup> Rheumatic Diseases Research Center, Mashhad University Of Medical Sciences, Mashhad, Iran

<sup>2</sup> Internal Department, Emam Reza Hospital, Mashhad University Of Medical Sciences, Mashhad, Iran

**P1-4 Correlation of ESR, CRP, and the Iran Behcet's Disease Dynamic Activity Measure (IBDDAM) in the Major Manifestations of Behcet's Disease**

Maryam Masoumi<sup>1, 2</sup>, Fereydoun Davatchi<sup>2, 3</sup>, Cheyda Chams-Davatchi<sup>2</sup>, Hormoz Shams<sup>2</sup>, Farhad Shahram<sup>2</sup>, Abdolhadi Nadji<sup>2</sup>, Massoomeh Akhlaghi<sup>2</sup>, Tahereh Faezi<sup>2</sup>, Zahra Ghodsi<sup>2</sup>, Bahar Sadeghi Abdollahi<sup>2</sup>, Farimah Ashofteh<sup>2</sup>, Negin Mohtasham<sup>2</sup>, Hoda Kavosi<sup>2</sup>

<sup>1</sup> Qom University of Medical Sciences.

<sup>2</sup> Behcet's Disease Unit, Rheumatology Research Center, Tehran University of Medical Sciences

<sup>3</sup> Chair Behcet's Disease, Iran National Elite Foundation

**P1-5 The Relationship Between Vitamin D Level in Serum and Disease Activity of Rheumatoid Arthritis**

Masoumi M., Alibeyk P., Parham M.

Qom University of Medical Sciences

**P1-6 Scleromyxedema Associated with Ankylosing Spondylitis Treated Successfully with Cyclosporine and High Dose Corticosteroids; a case report**

Ali Javinani<sup>1</sup>, Farhad Gharibdoost<sup>1</sup>, Ahmad Reza Jamshidi<sup>1</sup>, Hoda Kavosi<sup>2</sup>

<sup>1</sup> Rheumatology Research Center, Tehran University of Medical Sciences, Tehran, Iran

<sup>2</sup> Assistant Professor of Rheumatology Research Center, Tehran University of Medical Sciences, Tehran, Iran

**P1-7 Conduction Abnormalities and Fragmented QRS Complex in Patients with Systemic Sclerosis**

Ali Javinani<sup>1</sup>, Zahra Javady Nejad<sup>1</sup>, Farhad Gharibdoost<sup>1</sup>, Ahmad Reza Jamshidi<sup>1</sup>, Saba Alvand<sup>1</sup>, Vahide Imeni<sup>1</sup>, Reza Atef Yekta<sup>2</sup>, Seyed Naser Hashemi<sup>1</sup>, Hoda Kavosi<sup>3</sup>

<sup>1</sup> Rheumatology Research Center, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran

<sup>2</sup> Anesthesiology Department, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran

<sup>3</sup> Assistant Professor of Rheumatology Department, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran

**P1-8 The Relationship Between Serum Level of Vitamin D3 and the Severity of New Onset Rheumatoid Arthritis Activity**

Elham Rajaei<sup>1</sup>, Ali Ghorbani<sup>2</sup>, Karim Mowla<sup>1</sup>, Mehrnoosh Zakerkish<sup>3</sup>, Maryam Mohebi<sup>4</sup>, Mehrdad Dargahi-MalAmir<sup>4</sup>

<sup>1</sup> Faculty, Department of Rheumatology, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran.

<sup>2</sup> Faculty, Department of Nephrology, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran.

<sup>3</sup> Faculty, Department of Endocrinology, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran.

<sup>4</sup> Faculty, Department of Internal Medicine, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

**P1-9 Study the Effects of Anti-Inflammatory Curcumer Capsules Containing Three Plants (Ginger, Curcumin and Black Pepper) in Patients with Active Rheumatoid Arthritis**

Ali Asghar Hemmati<sup>1</sup>, Elham Rajaei<sup>2</sup>, Gholamreza Houshmand<sup>3</sup>, Mahak Ahmad Fakhroddin<sup>4</sup>, Mehrdad Dargahi- MalAmir<sup>5</sup>, Saeed Hesam<sup>6</sup>, Nader Shakiba Maram<sup>7</sup>

<sup>1</sup> Department of pharmacology, School of Pharmacy, Ahvaz Jundishapur University of Medical Sciences (AJUMS), Ahvaz, Iran

<sup>2</sup> Assistant professor, Department of Rheumatology, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

<sup>3</sup> Department of pharmacology, School of Pharmacy, Ahvaz Jundishapur University of Medical Sciences (AJUMS), Ahvaz, Iran

<sup>4</sup> Pharmacy student of Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

<sup>5</sup> Assistant professor, Department of internal medicine, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

<sup>6</sup> PhD Candidate in biostatistics, Department of Epidemiology and Biostatistics, School of Public Health, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

<sup>7</sup> Department of pharmacology, School of Pharmacy, Ahvaz Jundishapur University of Medical Sciences (AJUMS), Ahvaz, Iran

**P1-10 Determination of Sensitivity and Specificity of Cardio-Goniometry in Detection of Coronary Artery Disease in Patients with Osteoporosis and Rheumatoid Arthritis**

Farzaneh Ahmadi<sup>1</sup>, Seyed Masoud Seyedian<sup>1</sup>, Bitra Abdipour<sup>2</sup>, Elham Rajaei<sup>3</sup>, Mehrdad Dargahi-MalAmir<sup>4</sup>

<sup>1</sup> Department of Cardiology, Atherosclerosis Research Center (Cardiovascular Disease Center), Faculty of Cardiology, Jundishapur University of Medical Sciences, Ahvaz, IR Iran

<sup>2</sup> Medical Student, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

<sup>3</sup> Faculty, Department of Rheumatology, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

<sup>4</sup> Faculty, Department of Internal Medicine, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran.

**Thursday, October 26****P2-1 The Effects of Different Conservative Therapeutic Methods in Patients with Knee Osteoarthritis: A Review on Literature**

Vahid Mazloun<sup>1</sup>, Mansour Sahebozamani<sup>2</sup>

<sup>1</sup> Department of Sports Injuries and Corrective Exercises, Islamic Azad University of Karaj, Karaj, Iran.



<sup>2</sup> Department of Sports Injuries and Corrective Exercises, Shahid Bahonar University of Kerman, Kerman, Iran.

**P2-2 Neutrophil Degranulation and IFN $\alpha$ / $\beta$  Signaling Pathways in Sle Pathogenesis**

Fateme Shaabanpour Aghamaleki<sup>1</sup>, Shirin Farivar<sup>2</sup>

<sup>1</sup> Department of Cellular and Molecular Biology, Faculty of Life Sciences and Biotechnology, Shahid Beheshti University G.C. Tehran, Iran

<sup>2</sup> Department of Cellular and Molecular Biology, Faculty of Life Sciences and Biotechnology, Shahid Beheshti University G.C. Tehran, Iran

**P2-3 Low Detection of Hepatitis B and Occult Hepatitis B Infection in Patients with Rheumatic Diseases**

Behnam Azizolahi<sup>1,2</sup>, Elham Rajaei<sup>3</sup>, Reza Taherkhani<sup>4,5</sup>, Fatemeh Farshadpour<sup>4,5</sup>, Manoochehr Makvandi<sup>\*1,2</sup>

<sup>1</sup> Infectious and Tropical Disease Research Center, Health Research Institute, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, IR Iran

<sup>2</sup> Medical Virology Department, School of Medicine, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, IR Iran

<sup>3</sup> Rheumatology Department, Golestan Hospital, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, IR Iran

<sup>4</sup> Microbiology and Parasitology Department, School of Medicine, Bushehr University of Medical Sciences, Bushehr, IR Iran

<sup>5</sup> Tropical Medicine Research Center, Bushehr University of Medical Sciences, Bushehr, IR Iran

**P2-4 Bone Mineral Density in Rural and Urban Female of North Eastern Iran**

Nayyereh Saadati<sup>\*1</sup>, Elaham Adibi<sup>2</sup>

<sup>1</sup> Department of Rheumatology, Ghaem Medical Centre, School of Medicine, Mashhad University of Medical Sciences (MUMS), Mashhad, Iran

<sup>2</sup> Intern, Ghaem Medical Centre, School of Medicine, Mashhad University of Medical (MUMS), Mashhad, Iran

**P2-5 Osteomalacia with Looser Zone Caused by Celiac Disease**

Nayyereh Saadati<sup>\*1</sup>, Mandana Khodashahi<sup>1</sup>, Bahram Naghibzadeh<sup>2</sup>, Elaham Adibi<sup>3</sup>

<sup>1</sup> Department of Internal Medicine, Ghaem Medical Centre, School of Medicine, Mashhad University of Medical Sciences (MUMS), Mashhad, Iran

<sup>2</sup> Rheumatic Disease Research Center (RDRC), Ghaem Medical Center (MUMS), Mashhad, Iran

<sup>3</sup> Intern, Ghaem Medical Centre, School of Medicine, Mashhad University of Medical (MUMS), Mashhad, Iran

**P2-6 Acquired Hemophilia as Initial Presentation in a Patient with Systemic Lupus Erythematosus**

Zohre Khodamoradi<sup>1</sup>, Mohammad Ali Nazarinia<sup>2</sup>, Somaye Bazdar<sup>1</sup>

<sup>1</sup> Student Research Committee, Shiraz University of Medical Sciences, Shiraz, Iran

<sup>2</sup> Shiraz Geriatric Research Center, Shiraz University of Medical Sciences, Shiraz, Iran

**P2-7 Severe Thrombocytopenia and Bleeding, the Only and the Initial Presenting Feature of Systemic Lupus Erythematosus: A case-report**

Mansour Babaei<sup>\*1,2</sup>, Behzad Heidari<sup>3</sup>

<sup>1</sup> Mobility Impairment Research Center, Assistant Professor of Department of Internal Medicine, Division of Rheumatology, Babol University of Medical Sciences, Babol, Iran

<sup>2</sup> Rouhani Hospital, Clinical Research Development Unit of Rouhani Hospital, Babol University of Medical Sciences, Babol, Iran

<sup>3</sup> Mobility Impairment Research Center, Full Professor of Department of Internal Medicine, Babol University of Medical Sciences, Babol, Iran

**P2-8 Association Between Physical Activity and Quadriceps Muscle Strength with Bone Mineral Density in the Elderly Men**Mansour Babaei<sup>1</sup>, Alijan Ahmadi Ahangar<sup>2</sup>, Ali Bijani<sup>3</sup>, Seyed Reza Hosseini<sup>3</sup>, Behzad Haidari\*<sup>2</sup><sup>1</sup> Department of Internal Medicine, Division of Rheumatology, Clinical Research Development Unit of Rouhani Hospital, Babol University of Medical Sciences, Babol, Iran<sup>2</sup> Department of Internal Medicine, Mobility Impairment Research Center, Babol University of Medical Sciences, Babol, Iran<sup>3</sup> Social Determinants of Health Research Center, Health Research Institute, Babol University of Medical Sciences, Babol, Iran**P2-9 Character and Type of Diseases of Elderly Patients Lead to Hospital Admission in Rheumatology Wards of Shiraz/Iran over Period of 2008-2013**Saeedeh Shenavandeh<sup>1</sup>, Elham Sadeghi<sup>2</sup><sup>1</sup> Department of Internal Medicine, Division of Rheumatology, Shiraz University of Medical Sciences, Shiraz, Iran<sup>2</sup> School of medicine, Shiraz University of Medical Sciences, Shiraz, Iran**P2-10 The Effect of Aquatic Exercise on Disease Activity Score in Women with Rheumatoid Arthritis**Said Mostafa Saidmardani\*<sup>1</sup>, Miramir Aghdashi<sup>1</sup>, Fatemeh Asghari<sup>2</sup>, Golshan Kamali Zonouz<sup>3</sup>, Parastoo Alizade<sup>4</sup><sup>1</sup> Department of Internal Medicine, assistant professor of Internal Medicine, Urmia university of medical sciences, Urmia, Iran<sup>2</sup> Department of Physiology, MSc in Sport Physiology, Urmia university, Urmia, Iran<sup>3</sup> Department of Emergency Medicine, assistant professor of Emergency Medicine, Urmia university of medical sciences, Urmia, Iran<sup>4</sup> Medical Doctor, Urmia university of medical sciences, Urmia, Iran**Friday, October 27****P3.1 Long-term Outcome of Treatment with Disease-Modifying Antirheumatic Drugs in Patients with Palindromic Rheumatism**Alireza Khabbazi<sup>1</sup>, Mohammad Goli<sup>2</sup><sup>1</sup> Connective Tissue Diseases Research Center, Associated Professor, Internal Medicine Department, Tabriz University of Medical Sciences, Tabriz, Iran<sup>2</sup> Connective Tissue Diseases Research Center, Internist, Tabriz University of Medical Sciences, Tabriz, Iran**P3-2 Is Smoking a Risk Factor for Behcet's Disease?**Alireza Khabbazi<sup>1</sup>, Aida Malekmahdavi<sup>2</sup>, Barmak Yaaghoobian<sup>2</sup><sup>1</sup> Connective Tissue Diseases Research Center, Associated Professor, Internal Medicine Department, Tabriz University of Medical Sciences, Tabriz, Iran<sup>2</sup> Connective Tissue Diseases Research Center, PhD, Tabriz University of Medical Sciences, Tabriz, Iran**P3-3 Occupational Therapy in Children with Epidermolysis Bullosa**

Ghodsiye Joveini, Mahnaz Hejazi shirmard\*

PhD Candidate of Occupational Therapy, Iran University of Medical Sciences, Faculty of Rehabilitation, Occupational Therapy Department

**P3-4 Association of Knee Osteoarthritis and Memory Impairment**Sasan Fallahi\*<sup>1</sup>, Farhad Afsari<sup>2</sup>, Nima Pakaghideh<sup>3</sup>, Ali Reza Rezaei<sup>3</sup><sup>1</sup> Assistant professor of rheumatology, Internal Medicine Division, Baharloo Hospital, Tehran University of Medical Sciences, Tehran, Iran<sup>2</sup> Assistant professor of neurology, Internal Medicine Division, Baharloo Hospital, Tehran University of Medical Sciences, Tehran, Iran



<sup>3</sup> General practitioner, Internal Medicine Division, Baharloo Hospital, Tehran University of Medical Sciences, Tehran, Iran

**P3-5 ISG & ICBD Criteria in Azeri Population**

Alireza Khabbazi, Leila Delnabi, Aliasgar Ebrahimi, Behnaz Ghamari, Farid Karkon Shayan\*  
Connective Tissue Diseases Research Center, Tabriz University of Medical Sciences, Tabriz Iran

**P3-6 Is There a Correlation Between the Clinical, Radiological and Ultra-Sonographic Findings of Osteoarthritis of the Knee?**

Anousheh Haghighi<sup>1</sup>, Nahid Dehghani Arani<sup>2</sup>, Nahid Kianmehr\*<sup>3</sup>, Mani Mofidi<sup>4</sup>,  
Mahgol Farjadnia<sup>5</sup>, Elham Rajae<sup>6</sup>, Mehrdad Dargahi MalAmir<sup>7</sup>

<sup>1</sup> Rasoul Akram Hospital, Department of Internal Medicine, Iran University of Medical Sciences, Iran, Tehran

<sup>2</sup> Rasoul Akram Hospital, Iran University of Medical Sciences, Iran, Tehran.

<sup>3</sup> Nahid Kianmehr, Associate Professor of Rheumatology, Department of Internal Medicine, Iran University of Medical Sciences, Iran, Tehran, (corresponding author).

<sup>4</sup> Akram Hospital, Emergency Management Research Center, Iran University of Medical Sciences, Iran, Tehran

<sup>5</sup> Rasoul-Akram Hospital, Iran University of Medical Sciences, Iran, Tehran

<sup>6</sup> Department of Rheumatology, Ahvaz Jundishapur University of Medical Science, Iran, Tehran

<sup>7</sup> Department of Internal Medicine, Ahvaz Jundishapur University of Medical Science, Iran, Ahvaz

**P3-7 A Case of Rheumatoid Arthritis Complicated with Chronic Myeloid Leukemia and Intracranial Epidermoid**

Parviz Ghezelbash, Aida Karami, Zahra Ghezelbash, Parisa Karami\*  
Zanjan university of medical science, radiology department, zanjan MRI center

**P3-8 Comparison of Prevalence of Metabolic Syndrome in Male and Female Rheumatoid Arthritis Patients**

Maryam Mobini\*  
Rheumatologist, Associate professor, Department of Internal Medicine, Diabetes Research Center, Faculty of Medicine, Mazandaran University of Medical Sciences, Sari, Iran

**P3-9 Prevalence of Inflammatory Rheumatic Diseases in a Rheumatologic Outpatient Clinic: Analysis of 12626 Cases**

Mohammad Hassan Jokar  
Internal Medicine Department, Emam Reza Hospital, Mashhad University of Medical Sciences, Mashhad, Iran



# ORAL PRESENTATIONS



S1-1

## Adjusting FRAX<sup>®</sup> on TBS for Identification of Subjects at High Risk of Fractures

**Mozhdeh Zabihyeganeh<sup>1</sup>, Alireza Mirzaei<sup>1</sup>, Marzieh Nojomi<sup>2</sup>, Alireza Rajaei<sup>3</sup>, Seyed Adel Jahed<sup>4</sup>**

<sup>1</sup> Bone and Joint Reconstruction Research Center, Shafa Orthopedic Hospital, Iran University of Medical Sciences, Tehran, Iran.

<sup>2</sup> Preventive Medicine & Public Health Research Center, Department of Community Medicine, School of Medicine, Iran University of Medical Sciences, Tehran, Iran.

<sup>3</sup> Department of Rheumatology, Loghman Hospital, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

<sup>4</sup> Scientific Committee of the Gabric Diabetes Education Association, Tehran, Iran.

**Background:** Trabecular Bone Score (TBS) is an index of bone microarchitecture that provides additional skeletal information to areal Bone Mineral Density (aBMD). Recently TBS data has been used to optimize the Fracture Risk Assessment Tool (FRAX) predictive value. The aim of this study was to evaluate the clinical value of TBS on FRAX algorithm.

**Methods:** Among total of 358 postmenopausal Iranian women (mean age 61.3±9.5 years) tested for aBMD and TBS, 184 osteopenic women were identified. Thoraco-lumbar spine X-ray done in all participants revealed twenty-one vertebral fractures. For the osteopenic group, FRAX and TBS adjusted FRAX (FRAX-TBS) were calculated and compared.

**Results:** Mean TBS of the patients was 1.31 (±0.11). A significant correlation was found between TBS and spine aBMD ( $r=0.50$ ,  $p<0.001$ ) and TBS and femoral neck aBMD ( $r=0.37$ ,  $p<0.0001$ ). A strong positive correlation was observed between aBMD adjusted FRAX and FRAX-TBS in predicting the risk of major osteoporotic fracture ( $r=0.90$ ,  $p<0.0001$ ), and hip fracture ( $r=0.97$ ,  $p<0.0001$ ). According to the area under the receiver operating characteristics curve, the predictive value of the three different models using aBMD, TBS, and combination of aBMD and TBS were similar (0.765, 0.776, and 0.781, respectively;  $p=0.19$ ). The proportion of the women needed treatment remained unchanged using FRAX or FRAX-TBS.

**Conclusion:** This study showed no clinical benefit for TBS in postmenopausal women. Adding TBS data to aBMD or FRAX neither improved aBMD predictive value for vertebral fracture nor changed the decision on treatment based on FRAX.

S1-2**Our Requests' Imaging for Low Back Pain; Are They Reasonable?****Mohsen G. Soroush<sup>1</sup>, Mehdi Anari<sup>2</sup>**<sup>1</sup> Rheumatologist, rheumatology unit, AJA University of medical sciences, Tehran, Iran<sup>2</sup> Internist, internal medicine section, AJA University of medical sciences, Tehran, Iran

**Introduction:** There are various reports on the increasing use and costs of diagnostic imaging for low back pain (LBP) in different sites. We know that this routine imaging is not associated with benefits and it exposes patients to unnecessary harms, and increases costs. The rate of lumbar spine imaging is growing at an alarming rate in all countries including Iran, despite evidence that it is not accompanied by improved patient outcomes. Overutilization of lumbar imaging in individuals with low back pain correlates with manifold increase in surgical rates in patients with problem. There are some guidelines and some red flags for the evaluation of imaging modalities for the lumbar spine in patients with LBP. The clinician must pay attention to the clinical indicators or “red flags” that suggest the presence of systemic illness or neurologic compromise.

**Object:** The primary purpose of this study is to evaluate the use of guidelines or red flags in patients with LBP by our referring clinicians. We also would like to know about the specialty of referring clinicians and rate of imaging request by each of them.

**Material and methods:** This was a prospective study of lumbar imaging referrals to MRI (Magnetic Resonance Imaging) center at the Imam Reza hospital, Tehran between January 2016 and January 2017. During this time we randomly selected 710 people that referred to this MRI center for lumbar spine MRI. History and physical exam was taken for all of selected patients before doing MRI and also we requested their contact number to follow up with them after one month. A checklist of accepted red flags for LBP was designed and filled during history taking and physical examination by rheumatologist and internal medicine assistant that educated about this study.

**Results:** Total number of referred patients that visited in MRI center was 710. Sex difference in these patients was 200 male (28.2%) and 510 female (71.8%). Mean age of referred patients was 41.2 years (18 - 90 yr). Mean duration of pain in these patients was 475 days and 115 of them had history of previous low back MRI. Base on history taking about 135 patients had red flags and risk factors in their medical history that indicated for imaging. During physical examination about 108 patients had at least one risk factor indicating for imaging. Overall base on history and physical examination 180 patients had at least one risk factor that needs more evaluation by imaging. Patients in this study were referred from different physician, most of them from neurosurgeon (479 refer -67.5 %) and orthopedics (101 refer -14.2 %).

**Conclusion:** This study shows that about 80 Percent of cases referred for MRI doesn't have academic indication for imaging. Apart from results of any low back MRI that might be different from clinical process and cause wrong management, their cost and benefits are very important factor for decision making.

**Keywords:** Low back pain; diagnostic imaging; red flags

S1.3

## Childhood Primary Angiitis of CNS, Ten Years Experience in a Pediatric Rheumatology Clinic

**Farhad Salehzadeh<sup>1</sup>, Farzad Ahmadabadi<sup>2</sup>, Manuchehr Barak<sup>3</sup>**

*<sup>1</sup> Professor in Pediatric Rheumatology, Pediatric Department*

*<sup>2</sup> Associate Professor in Pediatric Neurology, Pediatric Department*

*<sup>3</sup> Associate Professor in Pediatric Infectious disease, Pediatric Department*

**Background:** CNS vasculitis in children as a primary vascular inflammatory process is considered a novel clinical problem in pediatric rheumatology clinics.

**Methods:** From 1996 to 2016 at pediatric rheumatology clinic, patients <18 years of age were included to this study as having childhood primary angiitis of CNS (cPACNS). Including criteria were:

a clinical diagnosis of primary CNS vasculitis, and MRA findings demonstrating arterial stenosis and or aneurism not attributable to other causes.

**Results:** 22 patients were enrolled with mean age 10 years, (54%) were female. Headache (88%) then seizure and mental disorder in (45%) were the most common neurologic symptoms. The mean delayed to diagnosis was 4 years. Fever was in (54%) and ANA in (31%) was positive. 63 % had abnormality in both MCA and ACA (14 patients), whereas PCA showed abnormality in 36% (8 patients). 86 % had normal EEG results. 22% had severe and permanent neurological sequel.

**Conclusion:** Since cPACNS is unfamiliar disorder, we recommend that in any patient with unexplained neurologic findings such as headache, seizure and mental disorder CNS vasculitis should be considered.

**Keywords:** CNS Vasculitis, CNS Angiitis, Brain MRI, Brain MRA

**S1.4****Beneficial Effect of Serum Ferritin on Postmenopausal Bone Mass****Mansour Babaei<sup>1</sup>, Ali Bijani<sup>2</sup>, Reza Hosseini<sup>2</sup>, Behzad Heidari<sup>\*3</sup>**

<sup>1</sup> Department of Internal Medicine, Division of Rheumatology, Clinical Research Development Unit of Rouhani Hospital, Babol University of Medical Sciences, Babol, Iran

<sup>2</sup> Social Determinants of Health Research Center, Health Research Institute, Babol University of Medical Sciences, Babol, Iran

<sup>3</sup> Department of Internal Medicine, Mobility Impairment Research Center, Babol University of Medical Sciences, Babol, Iran

**Background:** Serum ferritin (SF) is a marker of iron stores as well as a measure of inflammation. Identification of factors affecting BMD in postmenopausal women is important. The present case- control study was performed to determine the association between SF and BMD in postmenopausal women.

**Methods:** All female participants of the Amirkola cohort aged  $\geq 60$  years entered the study. BMD at femoral neck (FN) and lumbar spine (LS) was determined by dual energy x-ray absorptiometry (DXA) method. In statistical analysis the patients were classified as high and normal SF ( $<100$  ng/ml) and the two groups were compared according to prevalence of osteoporosis defined as BMD T-score  $< -2.5$  at either FN or LS. Multiple logistic regression analysis with simultaneous adjustment for all clinical, demographic and biochemical variables with calculation of odds ratio (OR) was performed to determine independent association between SF and osteoporosis.

**Results:** 537 women with mean age of  $67.9 \pm 6.7$  years, mean menopausal duration (MD) of  $15.8 \pm 5.1$  years were studied. Mean SF was  $102 \pm 118$  ng/dl and 318 (59.2%) patients had  $SF \geq 100$  ng/dl. Osteoporosis at either FN or LS was observed in 308 (57.4%) patients. Osteoporosis was positively associated with MD, parity, and history of fracture but negatively with BMI, diabetes, MetS, physical activity and SF. After adjustment for all covariates, compared with normal levels of SF, in subjects with  $SF > 100$  ng/dl the risk of osteoporosis was significantly lower at FN by  $OR=0.61$  (95%CI, 0.29-0.97) as well as at LS by  $OR=0.49$  (95% CI, 0.32-0.76).

**Conclusion:** These findings indicate a positive association between SF and BMD in postmenopausal women and significantly lower risk of osteoporosis in subjects with high SF.

**Keywords:** Bone mineral density, postmenopausal women, Serum ferritin, Association



**S1-5****Super Antigen Tracking in Blood and Synovial Fluid of Rheumatoid Arthritis Patients: A Comparative Study****Gholam Hosein Alishiri<sup>1</sup>, Ramezan Ali Ataee\*<sup>2</sup>**

<sup>1</sup> Professor in Department of Rheumatology, Faculty of Medicine, Baqiyatallah University of Medical Sciences, Tehran, I.R. Iran

<sup>2</sup> Professor in Department of Medical Microbiology, Faculty of Medicine, Baqiyatallah University of Medical Sciences, Tehran, I.R. Iran

**Aim:** In previous investigations, some of the common super antigens in synovial fluid of patients were identified. This study aimed was to tract and comparative of staphylococcal enterotoxin C segments gene in synovial fluid and Blood of RA patients concurrently.

**Methods:** In this study, one hundred synovial fluid and Blood samples of the RA patients were assayed simultaneously. The pair's primers for amplification of the 81, 110 and 616bp fragments of the SEC gene were used. The amplified amplicons were sequenced and multiple alignments with reference gene were carried out. The obtained data for assay of blood and synovial fluid of patients was subjected to descriptive analysis.

**Results:** The results showed that the pair primers amplified the related fragments amplicons of ent C gene in synovial fluid with frequency in totally 36 (36%) with element analysis in 6 cases for 616bp, 15 cases for 110bp and 11 cases for 81bp amplicons. The results of blood assay indicate 48 (48%) for ent C with element analysis in 8 cases for 616bp, 21 cases for 110bp and 19 cases for 81bp respectively.

**Conclusion:** The results showed the existent of the different fragments' staphylococcal enterotoxin C gene (one of the classical superantigens) in synovial fluids and also in blood of RA patient's whit high frequency. Hence, further studies with large sample size are needed. These finding may help to design a new model for the molecular pathogenesis of rheumatoid arthritis diseases.

**Keywords:** Synovial fluid, Serum, Staphylococcal enterotoxin C, PCR, Rheumatoid arthritis.

**S1-6****Effect of Knee Muscles Strengthening Exercises on Clinical Responses and Outcomes in Patients with Knee Osteoarthritis****Alireza Sadeghi<sup>1</sup>, Zakie Khanlari\*<sup>2</sup>, Nooshin Jalili<sup>3</sup>, Ramezan Fallah<sup>4</sup>**<sup>1</sup> Department of Internal Medicine, Zanjan University of Medical Sciences, Zanjan, Iran<sup>2</sup> General Practitioner Graduated from Zanjan University of Medical Sciences, Zanjan, Iran<sup>3</sup> Department of Internal Medicine, Zanjan University of Medical Sciences, Zanjan, Iran<sup>4</sup> Department of Statistics and Epidemiology, Zanjan University of Medical Sciences, Zanjan, Iran

**Aim:** Knee osteoarthritis is one of the most important causes of dysfunction reducing quality of life. This study aimed at exploring the effectiveness of exercises that strengthen the muscles around the knee joint on responses and outcomes in patients with knee osteoarthritis.

**Methods:** This clinical trial was carried out on ninety six 40 to 70-year-old patients with mild to moderate knee osteoarthritis (stages 1-3 based on the Kellegren Lawrence grading scale) for eight weeks. The patients were divided into four groups. The first group did strengthening exercises of the quadriceps, the second one strengthening exercises of the hamstring, the third one both hamstring and quadriceps strengthening and the last one as the control group did not receive any exercises during the study. The patients were assessed on pain, physical function and morning stiffness using two questionnaires of VAS and WOMAC.

**Results:** Comparison of clinical consequences in each of the four groups, at the beginning and the end of the study indicated a significant decrease in pain scores and physical function of all groups ( $p < 0.05$ ). A significant decrease in VAS scores in groups 1 and 3 and an increase in those of the control group ( $p < 0.05$ ) and a decrease in morning stiffness scores in groups 1 and 3 ( $p < 0.05$ ) were observed. Positive and significant effects of exercises on pain ( $p = 0.003$ ) and morning stiffness ( $p = 0.0005$ ) and VAS scores ( $p = 0.0005$ ) were also observed compared to the control group. We found that positive and significant effects of exercises on pain relief and VAS scores in group 2 compared to the control group and on pain, morning stiffness and VAS scores in group 3 compared to the control group.

**Conclusion:** The combination of strengthening exercises of quadriceps and hamstring muscles significantly improved pain relief, physical function and morning stiffness of the patients more than those of other groups on all clinical consequences. Thus, strengthening exercises as a part of treatment of patients with knee osteoarthritis are highly recommended.

**Keywords:** Osteoarthritis, Clinical consequence, WOMAC, VAS, Strengthening exercises

## POSTER PRESENTATIONS



**P1-1**

## **The Simplified Easy-to-use Fibromyalgia Diagnostic Model: Analytical and Clinical Validation**

**Banafsheh Ghavidel-Parsa<sup>1</sup>, Ali Bidari<sup>2</sup>, Amir Hassankhani<sup>3</sup>, Asghar Hajiabbasi<sup>1</sup>, Sajjad Hosseini<sup>3</sup>,  
Babak Ghalehbaghi<sup>4</sup>, Omid Sanaei<sup>5</sup>**

<sup>1</sup> Rheumatology Research Center, Razi Hospital, School of Medicine, Guilan University of Medical Sciences, Rasht, Iran

<sup>2</sup> Department of Rheumatology, Iran University of Medical Sciences, Tehran, Iran

<sup>3</sup> Medical student, Student Research Center, Guilan University of Medical Sciences, Rasht, Iran

<sup>4</sup> Allergist and clinical immunologist, Otolaryngology and Head and Neck Surgery Research Center, Iran University of Medical Sciences, Tehran, Iran

<sup>5</sup> Division of Gastroenterology and Hepatology, Johns Hopkins Medical Institutions, Baltimore, MD, USA

**Objectives:** To explore the ACR 1990 and 2011 (FM) classification criteria's items and the components of FIQ to identify features best discriminating FM (FM's key features). To develop a FM diagnostic model using the FM's key features to separate FM from non-FM chronic pain disorders patients.

**Methods:** The means and frequency comparing FM, non-FM patients (osteoarthritis (OA) and non-OA pain groups) on TPs (tender points), ACR 2011 components (pain locations and FM major symptoms) and FIQ items were calculated. Then, two steps multiple regression analysis was performed to order these variables according to their maximal statistical contribution in predicting group membership. Partial correlations assessed their unique contribution, and two-group discriminant analysis provided a classification table. Using receiver operator characteristic analyses and area under the curve, we determined sensitivity and specificity of final model.

**Results:** A total of 172 patients with FM, 75 with OA and 21 with periarthritis or regional pain syndromes were enrolled. Two steps multiple regression analysis identified 8 key features of FM which accounted for approximately 65% of variance associated with FM group membership: lateral epicondyle TP (variance percentages: 36.9%), neck pain (14.5%), fatigue (4.7%), insomnia (3%), high back pain (2.2%), shoulder pain (1.5%) and gluteal TP (1.2%), FIQ fatigue (0.9%). The FM diagnostic model demonstrated 91.4% correct classification rate, 91.9% sensitivity and 91.7% specificity.

**Conclusion:** The FM diagnostic model is a simple and practical tool for differentiating FM from chronic pain disorders. We suggest the fewer but most discriminative TPs' examination as a forgotten feature in FM diagnosis

**Keywords:** Fibromyalgia; Diagnosis; Criteria

**P1-2****Correlation of Systemic Lupus Erythematosus Disease Activity (SLEDAL) with Serum Level of Albumin in Lupus Patients**

Maryam Masinaei<sup>1</sup>, Mitra Najarzadeh Shahri<sup>1</sup>, Abbas Ali Zeraati<sup>2</sup>, Bahare Asgharzadeh<sup>1</sup>,  
Zhaleh Shariati Sarabi\*<sup>1</sup>

<sup>1</sup> Rheumatic Diseases Research Center, Mashhad University Of Medical Sciences, Mashhad, Iran

<sup>2</sup> Internal Department, Emam Reza Hospital, Mashhad University Of Medical Sciences, Mashhad, Iran

**Introduction:** Systemic lupus erythematosus (SLE) is a common type of rheumatologic disease. currently there is no universally accepted “ gold satandard “to measure disease activity, an in expensive and clinically reliable serological marker for disease activity would therefore be usefull to guide therapy and gauge response to treatment; however such a marker remains elusive.the aim of this study is to investigate the correlation of systemic lupus erythematosus disease activity index (SLEDAL) with serum level of albumin in lupus patients.

**Methods:** Sixty new lupus patients who referred to Emam Reza hospital. SLEDAL obtained by reviewing clinical recods and serum albumin was measured by standard method.clinical characteristics of the patient were obtained by medical bivatiatie relationship between serum albumin and SLEDAL was investigated in an explorative analysis using pearson’s correlation coefficient rank.

**Results:** In this study sixty patients (55 female and 5 males) age  $31.2 \pm 7.50$  yr, were studied. The disease duration was  $51.38 \pm 29.13$  yr. Serum albumin was inversely correlated with SLEDAL ( $r=-.38$ ,  $p=.004$ ), however there was no significant correlation between serum albumin and anti dsDNA ( $r=-0.07$ ,  $p=0.6$ )

**Conclusion:** In our study we found significant inverse corrllation of serum albumin with SLEDAL and lower serum albumin levels associated with higher levels of SLE disease activity. However future studies are needed to assess the clinical utility of serum albumin as a marker for SLE disease activity.

**Keywords:** Systemic Lupus Erythematosus, albumin, SLEDAL

**P1-3**

## **Evaluating Effect of Helicobacter Pylori Eradication on Activity of Rheumatoid Arthritis**

**Saeed Dolatshahi<sup>1</sup>, Bahareh Asgharzadeh<sup>1</sup>, Mohammadreza Sheikhiyan<sup>2</sup>, Mitra Najarzadeh Shahri<sup>1</sup>, Zhaleh Shariati Sarabi<sup>\*1</sup>**

<sup>1</sup> *Rheumatic Diseases Research Center, Mashhahd University Of Medical Sciences, Mashhad, Iran*

<sup>2</sup> *Internal Department, Emam Reza Hospital, Mashhahd University Of Medical Sciences, Mashhad, Iran*

**Background:** Rheumatoid arthritis is a chronic disease which is recognized by symmetric inflammation of joints. Many factors have been proposed as its etiology and in fact a combination of genetic; immunologic; neuroendocrine and environmental and psycho-social factors is considered effective in its etiology. Microbial infections are also proposed as etiological factors especially attention has been paid to H. pylori recently.

**Method:** We recruited patients with RA who referred to Rheumatology Clinic of Imam Reza Hospital; 20 H. pylori positive; and 20 H. pylori negative; were selected and entered the study. Patients in H. pylori positive group had received standard treatment for H. pylori for 10 days. Patients' clinical findings and laboratory tests were evaluated in 5 phases; at the beginning of study and every 3 months until one year. Infection with H. pylori and its eradication after treatment were evaluated by rapid detection of H. pylori Ag stool exam.

**Results:** Patients in H. pylori positive group had the higher number of joints with inflammation and tenderness during 5 phases of evaluation and the difference between two groups was significant. The other evaluated clinical and laboratory tests did not differ significantly between these. H. pylori eradication did not improve clinical course of disease and laboratory tests.

**Conclusion:** Regarding the results of this study although having H. pylori infection in RA patients was accompanied with higher number of inflamed and tender joints; but H. pylori eradication did not improve patients' clinical symptoms and laboratory tests. The etiological relation between H. pylori and RA does not seem a strong relation between H. pylori and disease activity; if does exist at all.

**Keywords:** Rheumatoid arthritis, H. pylori, inflammatory joints

P1-4

## Correlation of ESR, CRP, and the Iran Behcet's Disease Dynamic Activity Measure (IBDDAM) in the Major Manifestations of Behcet's Disease

Maryam Masoumi<sup>1,2</sup>, Fereydoun Davatchi<sup>2,3</sup>, Cheyda Chams-Davatchi<sup>2</sup>, Hormoz Shams<sup>2</sup>, Farhad Shahram<sup>2</sup>, Abdolhadi Nadji<sup>2</sup>, Massomeh Akhlaghi<sup>2</sup>, Tahereh Faezi<sup>2</sup>, Zahra Ghodsi<sup>2</sup>, Bahar Sadeghi Abdollahi<sup>2</sup>, Farimah Ashofteh<sup>2</sup>, Negin Mohtasham<sup>2</sup>, Hoda Kavosi<sup>2</sup>

<sup>1</sup> Qom University of Medical Sciences.

<sup>2</sup> Behcet's Disease Unit, Rheumatology Research Center, Tehran University of Medical Sciences

<sup>3</sup> Chair Behcet's Disease, Iran National Elite Foundation

**Background:** There is a correlation of ESR, CRP, and BDCAF (one of the Disease Activity Measures of Behcet's Disease), as shown by Melikoglu and TopKarci in Turkish patients. The aim of this study is to look for the same in Iranian patients, but with the IBDDAM instead of BDCAF.

**Materials and Methods:** Patients (135) were selected as consecutive patients, seen at the Behcet's Unit of the Rheumatology Research Center, Tehran University of Medical Sciences (TUMS), Tehran, Iran. ESR, CRP, and IBDDAM were checked in patients having an active manifestation of the BD and compared with other patients having that symptom in the past but not at the day of examination.

**Results:** Oral aphthosis (OA), genital aphthosis (GA), anterior uveitis (AU), and retinal vasculitis (RV) were correlated with CRP with P values of 0.03, 0.009, <0.0001, and 0.05. GA, AU, posterior uveitis (PU), RV, vascular manifestations (VM), and Joint manifestations (JM), were correlated with ESR with p values of 0.02, <0.0001, <0.0001, <0.0001, 0.05, and 0.001. GA, eye involvement (EI), AU, and PU, were correlated with IBDDAM with p values of 0.001, <0.0001, <0.0001, and <0.0001.

**Conclusion:** ESR and/or CRP were significantly higher in active cases of OA, GA, AU, PU, RV, VM, JM, and NM. IBDDAM was higher in OA, GA, EI, AU, PU, and RV.

**Keywords:** Behcet's Disease, ESR, CRP, Iran Behcet's Disease Dynamic Activity Measure, IBDDAM, Behcet's Disease Activity Measure



**P1-5**

## **The Relationship Between Vitamin D Level in Serum and Disease Activity of Rheumatoid Arthritis**

**Masoumi M., Alibeyk P., Parham M.**

*Qom University of Medical Sciences*

**Introduction:** Vitamin “D” plays a prominent role in bone metabolism. It is considered as a regulating agent of immunity system.

**Aim:** the present study was carried out to check the potential relationship between serum levels of vitamin D and RA severity.

**Materials and Methods:** This research is a retrospective cross-sectional study on 216 patients with RA presenting to Rheumatology clinics in the city of Qom. Patients with active disease were subdivided into three categories; those with highly active Disease (DAS28 exceeding 5.1), those carrying mildly active disease (DAS28 ranging from 3.2 to 5.1) and those suffering from low active disease (DAS28 below 3.2). Vitamin “D” levels were determined within each group and the serum level below 20 nanograms/milliliter was taken as deficiency.

**Results:** The results of the present study indicated that 118 patients (54.6%, 95%CI=48.0-61.1) had DAS28 exceeding 5.1 with 70 (59.3%, 95%CI=50.3-67.7) patients from among them having Vit-D<20 ng/ml, 33 patients (15.3%, 95%CI=6.3-31.5) had DAS28=3.2-5.1 with 10 (30.3%, 95%CI=22.0-38.5) patients having vit-D<20 ng/ml, and 65 patients (30.1%, 95%CI=21.6-38.5) had DAS28 below 3.2 with 1 (1.5%, 95%CI=0.2-2.7) patient having vit-D<20 ng/ml.; The results indicated that there was a significant difference between the three groups of patients in terms of disease severity, (P-value<.0001).

**Conclusion:** There was a significant reverse relationship between the serum level of vitamin D and RA severity based on DAS 28.

**Keywords:** Rheumatoid arthritis, Disease activity, Vitamin D Deficiency, DAS28

P1-6

## **Scleromyxedema Associated with Ankylosing Spondylitis Treated Successfully with Cyclosporine and High Dose Corticosteroids; a case report**

**Ali Javinani<sup>1</sup>, Farhad Gharibdoost<sup>1</sup>, Ahmad Reza Jamshidi<sup>1</sup>, Hoda Kavosi<sup>2</sup>**

<sup>1</sup> Rheumatology Research Center, Tehran University of Medical Sciences, Tehran, Iran

<sup>2</sup> Assistant Professor of Rheumatology Research Center, Tehran University of Medical Sciences, Tehran, Iran

**Introduction:** Scleromyxedema (SM) is a rare disorder which initially presents with waxy skin stiffness and maculopapular lesions. It also has non-dermatologic manifestations such as serum paraproteinemia and myopathies, and is sometimes associated with other autoimmune disorders.

**Case Presentation:** A 52 year old man was referred, due to his torso-dominant skin stiffness. He also had a neglected history of bilateral inflammatory back pain and chronic *Helicobacter pylori* negative gastritis. Skin histopathology confirmed a diagnosis of SM. A grade 4 bilateral sacroilitis and a positive *human leukocyte antigen B27* led to the patient also being diagnosed with ankylosing spondylitis (AS). Upon further analysis, monoclonal gammopathy of immunoglobulin (Ig) G/kappa (lower than 3 g/dl) and normal percentage of plasma cells in his bone marrow aspiration sample were discovered. Due to the patient's IgA deficiency, intravenous immunoglobulin (IVIG) could not be used to treat his SM, and also, due to his positive tuberculin skin test (25 mm) and history of gastritis, anti-tumor necrosis factor alpha and non-steroid anti-inflammatory drugs were also refrained from. The patient received a drug regimen of cyclosporine (3mg/kg/day) and high-dose prednisolone (0.5mg/kg/day) which successfully controlled both his SM and AS disorders.

**Conclusion:** In this study we report a case of SM associated gammopathy and AS, which has not previously been reported. In addition, we also show the efficacy of cyclosporine and high dose prednisolone in the treatment of both of these conditions.

**Keyword:** Scleromyxedema; Ankylosing Spondylitis; Cyclosporine; Prednisolone

**P1-7**

## **Conduction Abnormalities and Fragmented QRS Complex in Patients with Systemic Sclerosis**

**Ali Javinani<sup>1</sup>, Zahra Javady Nejad<sup>1</sup>, Farhad Gharibdoost<sup>1</sup>, Ahmad Reza Jamshidi<sup>1</sup>, Saba Alvand<sup>1</sup>,  
Vahide Imeni<sup>1</sup>, Reza Atef Yekta<sup>2</sup>, Seyed Naser Hashemi<sup>1</sup>, Hoda Kavosi<sup>3</sup>**

<sup>1</sup> *Rheumatology Research Center, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran*

<sup>2</sup> *Anesthesiology Department, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran*

<sup>3</sup> *Assistant Professor of Rheumatology Department, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran*

**Aim:** Cardiac involvement is one of the main life-threatening manifestations of systemic sclerosis (SSc). It is caused mainly due to collagen fiber deposition in the heart structures, which can lead to conduction abnormalities. These conduction defects can present themselves in the form of bundle branch blocks (BBB) or the new cardiologic phenomenon of fragmented QRS complex (fQRS).

**Methods:** In this study, 41 Iranian patients were enrolled and a 12 leads ECG was obtained. The Framingham risk score was calculated to estimate the risk of heart attack in 10 years. The Medsger's severity scale (MSS) of skin, lung and vascular were also recorded. The P-values of the analyses were adjusted by the Benjamini and Hochberg method (BHM).

**Results:** BBB were found in 11 cases with the prevalence of 26.8 percent. fQRS was detected in 36.6% of the patients and it was present predominantly in the inferior leads (II, III and aVF). Nor BBB neither fQRS were associated with demographic features, Framingham risk score and MSS of skin, lung and vascular.

**Conclusion:** It seems that BBB and fQRS are more prevalent in SSc patients and they are not associated with clinical manifestations. These findings may show the probable independent pathophysiology of cardiac abnormalities in SSc.

**Keywords:** Systemic sclerosis, fragmented QRS complex, bundle branch blocks

**P1-8****The Relationship Between Serum Level of Vitamin D3 and the Severity of New Onset Rheumatoid Arthritis Activity**

**Elham Rajaei<sup>1</sup>, Ali Ghorbani<sup>2</sup>, Karim Mowla<sup>1</sup>, Mehrnoosh Zakerkish<sup>3</sup>,  
Maryam Mohebi<sup>4</sup>, Mehrdad Dargahi-MalAmir<sup>4</sup>**

<sup>1</sup> Faculty, Department of Rheumatology, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran.

<sup>2</sup> Faculty, Department of Nephrology, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran.

<sup>3</sup> Faculty, Department of Endocrinology, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran.

<sup>4</sup> Faculty, Department of Internal Medicine, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

**Background and objective:** Rheumatoid arthritis (RA) is a systemic inflammatory disease which typically involves wrists, ankles, and finally every joint. Some of studies have reported a reverse relationship between the level of vitamin D and RA severity. The present study was carried out in order to check the potential relationship between the level of vitamin D and RA severity and introduce this vitamin to help with treatment of patients and the control and prevention of disease severity in case of any significant relationship between the two.

**Materials and methods:** Ninety-three patients with RA with onset in recent 3 months (new onset RA), and 31 patients with neurologic disease were chosen as the control group. The patients all aged under 75 years and were diagnosed by a rheumatologist. The control group was selected from among patients with neurologic disease who had referred to the same medical center. The serum level of vitamin D was measured through blood test by chemiluminescence method by taking a blood sample of 5 cc. The relationship between the average level of vitamin D and disease severity was analyzed based on scoring scale of DAS28 in different groups with RA. The significant level of the abovementioned tests was set at 0.05>. Data analysis was carried out using SPSS 20.

**Results:** The results of the present study indicated that there was no significant relationship between the two groups in terms of the serum level of vitamin D. Since the subgroups of the patients are not homogenous in terms of age and based on disease severity, ANOVA and chi-square were run to modify this heterogeneity and compare vitamin D levels in patients based on disease severity. The results indicated that there was a significant difference between the three groups of patients in terms of disease severity, such that disease severity rose with a decrease in the serum level of vitamin D. (P value<0.0001)

**Conclusion:** According to our findings, there seems to be a significant reverse relationship between the serum level of vitamin D and RA severity based on DAS SCORE 28, such that the activity of RA will increase with a decrease in the level of vitamin D. Therefore, it is recommended that if there is a lack of or insufficient amounts of this vitamin in the body, vitamin D supply needs to be optimized along with other standard medications in order to reduce the RA severity.

**Keywords:** vitamin D; rheumatoid arthritis (RA) ; disease severity

**P1-9**

# **Study the Effects of Anti-Inflammatory Curcumex Capsules Containing Three Plants (Ginger, Curcumin and Black Pepper) in Patients with Active Rheumatoid Arthritis**

**Ali Asghar Hemmati<sup>1</sup>, Elham Rajaei<sup>2</sup>, Gholamreza Houshmand<sup>3</sup>, Mahak Ahmad Fakhroddin<sup>4</sup>,  
Mehrdad Dargahi- MalAmir<sup>5</sup>, Saeed Hesam<sup>6</sup>, Nader Shakiba Maram<sup>7</sup>**

<sup>1</sup> Department of pharmacology, School of Pharmacy, Ahvaz Jundishapur University of Medical Sciences (AJUMS), Ahvaz, Iran

<sup>2</sup> Assistant professor, Department of Rheumatology, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

<sup>3</sup> Department of pharmacology, School of Pharmacy, Ahvaz Jundishapur University of Medical Sciences (AJUMS), Ahvaz, Iran

<sup>4</sup> Pharmacy student of Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

<sup>5</sup> Assistant professor, Department of internal medicine, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

<sup>6</sup> PhD Candidate in biostatistics, Department of Epidemiology and Biostatistics, School of Public Health, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

<sup>7</sup> Department of pharmacology, School of Pharmacy, Ahvaz Jundishapur University of Medical Sciences (AJUMS), Ahvaz, Iran

**Background:** RA is an autoimmune disease that presented with chronic inflammation due to synovial hyperplasia, this disease progress through joint destruction. DMARD s is the most usual drug for treating this disease that accompanies with various adverse effects and complications. Aim of this study is to evaluate anti-inflammatory effect of a compound herbaceous drug consist of (ginger, Curcumin and black pepper) in rheumatoid patients so that decreasing dosage of DMARD s.

**Method:** 60 patients with Rheumatoid Arthritis upon ACR2010 criteria, enrolled study and divided to two groups consist of 30 patients. Both group received routine treatment of anti-rheumatoid agent consist of Methotrexate as DMARD, prednisolone and Hydroxychloroquine (HCQ), one group received compound herbal drug named Curcumex consist of (ginger, Curcumin and black pepper) and control group received placebo as a same dose. Before and after 8 weeks DAS 28 score, TJC, SJC, ESR and CRP was calculated and compared in two groups.

**Result:** Curcumex reduces TJC AND SJC significantly rather than placebo in patients with rheumatoid arthritis. Also DAS Score 28 decreased in Curcumex group rather than placebo (p-value<0.001). Laboratory markers such as ESR decreased in patients group, but there were no differences between two groups in CRP scales. (Value=0.322)

**Keywords:** ginger, Curcumin, black pepper, Rheumatoid Arthritis, DAS28, Curcumex

**P1-10****Determination of Sensitivity and Specificity of Cardio-Goniometry in Detection of Coronary Artery Disease in Patients with Osteoporosis and Rheumatoid Arthritis****Farzaneh Ahmadi<sup>1</sup>, Seyed Masoud Seyedian<sup>1</sup>, Bitra Abdipour<sup>2</sup>, Elham Rajaei<sup>3</sup>, Mehrdad Dargahi-MalAmir<sup>4</sup>**<sup>1</sup> *Department of Cardiology, Atherosclerosis Research Center (Cardiovascular Disease Center), Faculty of Cardiology, Jundishapur University of Medical Sciences, Ahvaz, IR Iran*<sup>2</sup> *Medical Student, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran*<sup>3</sup> *Faculty, Department of Rheumatology, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran*<sup>4</sup> *Faculty, Department of Internal Medicine, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran.*

**Background:** This study aimed to determine the sensitivity and specificity of cardio-goniometry (CGM) in detection of coronary artery disease in patients with osteoporosis and rheumatoid arthritis that have symptoms of chest pain through angiography or radionuclide myocardial perfusion imaging (MPI).

**Study Methods and design:** 100 patients with osteoarthritis and rheumatoid arthritis, according to WHO criteria suspected to have ischemic heart disease enrolled in study. The patients were studied by cardio-goniometry and then the results were compared with angiography or MPI of the same patient (selected as standard diagnosis method). then sensitivity and specificity of cardio-goniometry were calculated.

**Results:** 71 patients underwent to angiography and in 29 patients MPI was done. In first a group 42 patients had Coronary artery disease (CAD). In MPI group 18 patients had CAD in CGM. Seventy-one of these patients underwent angiography for diagnose of ischemic heart disease. 29 of them diagnosed as healthy. Of the 100 patients, 29 patients were evaluated previously using MPI to determine ischemic heart disease. 11 patients diagnosed as healthy. All 100 patients were examined by cardio-goniometry among which 47 subjects were healthy and the rest subjects had significant and non-significant ischemia. Statistical analyses didn't show significant difference between the results of cardio-goniometry with angiography and myocardial perfusion ( $p$  Value  $>0.05$ ). The results showed the sensitivity and specificity of cardio-goniometry compared rather than angiography and cardiac scan was equal to 0.86 and 0.63.

**Conclusion:** CGM can be suitable for screening of ischemic heart disease in patients with Rheumatoid arthritis and osteoporosis (who cannot do exercise test).

**Keywords:** osteoporosis, Rheumatoid Arthritis, cardio-goniometry, sensitivity, specificity

**P2-1**

# **The Effects of Different Conservative Therapeutic Methods in Patients with Knee Osteoarthritis: A Review on Literature**

**Vahid Mazloum<sup>1</sup>, Mansour Sahebozamani<sup>2</sup>**

<sup>1</sup> *Department of Sports Injuries and Corrective Exercises, Islamic Azad University of Karaj, Karaj, Iran.*

<sup>2</sup> *Department of Sports Injuries and Corrective Exercises, Shahid Bahonar University of Kerman, Kerman, Iran.*

**Background:** High prevalence of knee osteoarthritis (KOA) in our country and the subsequent disability has resulted in introducing multifarious non-aggressive interventions with distinct influences on this disease. The purpose of this study was to review previous domestic studies about the effects of conservative therapeutic options on patients with KOA.

**Materials and Methods:** Using motor engines involving IrMedex, MedLib, ISC, Google Scholar, Magiran, SID, and rehabilitation and medical journals based on defined keywords, 53 articles were found and 20 studies finally included in our study after applying the exclusion criteria. Type of study, the pattern of choosing subjects, patients' information, the measurements, interventions, and the results were exploited from each article and the PEDro scale was administrated to evaluate the studies.

**Results:** Based on analysis of PEDro scale results (Mean±SD for articles score: 5.55±1.23), the quality of most articles were as fair and good. The focus of conservative treatments was on exercise therapy methods, using assistive devices, and physical therapy management. From a clinical perspective, the evidence indicates the appropriate effects of such treatment choices on alleviating pain, enhancing function, and improving quality of life in individuals with KOA.

**Conclusion:** Most conservative methods can reduce pain and improve quality of life and physical function in patients with KOA. It's suggested to use combination treatment methods on other complications of such patients such as proprioception and muscle strength.

**Keywords:** Knee Osteoarthritis, Non-aggressive Treatment, Exercise Therapy, Physical Therapy, Pain, Function

**P2-2****Neutrophil Degranulation and IFN $\alpha$ / $\beta$  Signaling Pathways in SLE Pathogenesis****Fateme Shaabanpour Aghamaleki<sup>1</sup>, Shirin Farivar<sup>2</sup>**<sup>1</sup> *Department of Cellular and Molecular Biology, Faculty of Life Sciences and Biotechnology, Shahid Beheshti University G.C. Tehran, Iran*<sup>2</sup> *Department of Cellular and Molecular Biology, Faculty of Life Sciences and Biotechnology, Shahid Beheshti University G.C. Tehran, Iran*

**Aim:** Systemic Lupus Erythematosus (SLE) is a systemic autoimmune disease characterized by a breakdown of tolerance to nuclear antigens and the development of immune complexes. Genomic approaches have shown that human SLE leukocytes homogeneously express type I Interferon (IFN) and Neutrophil-related transcripts. Although neutrophils have long been shown to be associated with lupus, their potential role in disease pathogenesis remains elusive. Neutrophil-specific genes are abundant in PBMC microarrays from lupus patients because of the presence of low-density granulocytes (LDGs) in mononuclear cell fractions. LDGs have capacities to generation of reactive oxygen species, activation status, inflammatory cytokine like type I IFN expression and signatures so LDGs are proinflammatory and display pathogenic features for disease like SLE.

**Methods:** Gene expression profiling by array of 68 SLE pediatrics patients whole blood samples and 41 healthy controls was extracted from GEO Datasets. Expression of genes between two groups were compared with logfc and sorted by their p-value. Also the most related pathway of these genes were identified with reactome database. The most related molecules that play roles in these pathway were discovered.

**Results:** Neutrophil degranulation and IFN $\alpha$ / $\beta$  signaling pathways are the most related pathway for genes with hyperexpression in SLE patients according to reactome database analysis. These two pathway associate with each other in SLE pathogenesis. RSAD2 or radical S-adenosyl methionine domain containing 2 genes and IFI44 or interferon induced protein 44 gene have hyperexpression in SLE patients. EIF3L (eukaryotic translation initiation factor 3 subunit L) and TXNDC12 (thioredoxin domain containing 12) genes have hypoexpression in SLE patients.

**Conclusion:** Neutrophil degranulation and IFN $\alpha$ / $\beta$  signaling play critical roles in SLE pathogenesis. Identifying these important pathway and critical genes in SLE patients can be an effective target for SLE therapy and they can be used as therapeutic target for drug designing and various methods of therapy.

**Keywords:** SLE, Neutrophil degranulation, IFN $\alpha$ / $\beta$  signaling pathway



## P2-3

# Low Detection of Hepatitis B and Occult Hepatitis B Infection in Patients with Rheumatic Diseases

Behnam Azizolahi<sup>1,2</sup>, Elham Rajaei<sup>3</sup>, Reza Taherkhani<sup>4,5</sup>, Fatemeh Farshadpour<sup>4,5</sup>, Manoochehr Makvandi<sup>\*1,2</sup>

<sup>1</sup> Infectious and Tropical Disease Research Center, Health Research Institute, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, IR Iran

<sup>2</sup> Medical Virology Department, School of Medicine, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, IR Iran

<sup>3</sup> Rheumatology Department, Golestan Hospital, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, IR Iran

<sup>4</sup> Microbiology and Parasitology Department, School of Medicine, Bushehr University of Medical Sciences, Bushehr, IR Iran

<sup>5</sup> Tropical Medicine Research Center, Bushehr University of Medical Sciences, Bushehr, IR Iran

**Aim:** A new form of hepatitis B virus (HBV) infection, occult hepatitis B infection (OBI), has been identified as the presence of HBV DNA without detectable HB surface antigen (HBsAg) and with or without HB core antibody (HBcAb) /HBsAb. OBI has been reported among patients with rheumatic diseases. Reactivation of HBV has been described in OBI positive patients with rheumatic diseases who receive treatment with immunosuppressive medication. The aim of this study was to determine the incidence of HBV infection and OBI in patients with rheumatic diseases referred to major hospitals in the city of Ahvaz in Iran.

**Methods:** In a cross-sectional study, sera samples were collected from 136 patients with rheumatic diseases referred to the rheumatology clinics, Ahvaz Jundishapur University of Medical Sciences, during March to December 2015. Medical records of the patients included the diagnoses of rheumatoid arthritis (RA), systemic lupus erythematosus (SLE) and ankylosing spondylitis (AS) as well as undifferentiated connective tissue disease (UCTD). Serological assays for HBV markers (HBsAg, HBcAb and HBsAb) were performed by enzyme-linked immunosorbent assay. All the sera were tested for HBV DNA using nested PCR and real-time PCR. All samples were negative for anti-HCV and anti-HIV antibodies as selection criteria for the research.

**Results:** The mean age of the patients was 43.5±12.02 years with a F:M 2.24:1. 2 (1.47%) cases with undifferentiated connective tissue disease tested positive for both HBsAg and HBV DNA. Quantitative HBV real-time PCR was carried out for the 134 negative HBsAg samples and only one case (0.74%), a 38-year-old man who had RA, indicated a positive reaction for OBI with viral load HBV DNA 1922 IU/ml. The patient was positive for HBcAb and negative for HBsAb. 14/136 (10.3%) patients showed positive for HBcAb but 12 of them were negative for HBsAg. The results of sequencing and alignment showed that the detected HBV DNAs belonged to the D genotype, ayw2 subtype. The nucleic acid sequence of OBI case revealed substitution changes in amino acids in the positions of the 171-4 of HBsAg gene.

**Conclusion:** A moderate rate of HBV infection and low detection of OBI is found in patients with rheumatic diseases in southwest Iran. The amino acid substitutions and mutation have been observed at the position of 171-4 in the S gene region of HBV DNA which may affect the detection of HBsAg by commercial immunoassay methods. To prevent the reactivation of HBV infection and improve the treatment and management of rheumatic diseases, HBV serological examinations as well as HBV DNA viral load by highly sensitive molecular approaches such real-time PCR should be recommended for all patients with rheumatic diseases before and during immunosuppressive therapy.

**Keywords:** HBV, occult hepatitis B infection (OBI), rheumatic diseases, PCR, Ahvaz

**P2-4****Bone Mineral Density in Rural and Urban Female of North Eastern Iran****Nayyereh Saadati\*<sup>1</sup>, Elaham Adibi<sup>2</sup>**

<sup>1</sup> *Department of Rheumatology, Ghaem Medical Centre, School of Medicine, Mashhad University of Medical Sciences (MUMS), Mashhad, Iran*

<sup>2</sup> *Intern, Ghaem Medical Centre, School of Medicine, Mashhad University of Medical (MUMS), Mashhad, Iran*

**Aim:** Osteoporosis, also known as the silent disease, is considered a major health problem in Iran. The aim of this study was to evaluate Bone Mineral Density (BMD) and to assess the incidence of osteoporosis among women living in urban citizens in Mashhad and rural people in the areas of Mashhad.

**Methods:** A consecutive series of 239 women aged 26-86 (mean 46.3 years) all of which living in Mashhad and farmers of the areas in the region of Mashhad were admitted over a 3 years period to the Rheumatology Unit of Ghaem Medical Center, Mashhad University of Medical Sciences, were screened for BMD. The prevalence rates of osteopenia and osteoporosis were considered according to WHO criteria and local reference values. Analyzed population was divided into two subgroups: Rural (n=129, 55.2%) and Urban (n=111, 44.1%). Bone mineral density using dual energy X-ray absorptiometry (DEXA) Lunar DPX-L (Lunar Corporation, Madison, WI) measurements scanning included two lumbar spine (L2-L4) and femur regions from June 2013 - February 2016.

**Results:** Mean lumbar BMD was lower in the rural populations comparing with the urban people in Mashhad, North Eastern Iran.

**Conclusion:** In this study, lower lumbar BMD, in the way of osteoporosis and osteopenia, was found in rural people, compared with urban population of North Eastern, Iran. The causes for the lower rate of bone loss in rural residents in this research is unknown, but low dietary calcium and vit-D3 takings could be a causal factor.

**Keywords:** Osteoporosis, Osteopenia, Osteoporosis in Urban and Rural, Low dietary calcium

**P2-5**

# **Osteomalacia with Looser Zone Caused by Celiac Disease**

**Nayyereh Saadati\*<sup>1</sup>, Mandana Khodashahi<sup>1</sup>, Bahram Naghibzadeh<sup>2</sup>, Elaham Adibi<sup>3</sup>**

<sup>1</sup> *Department of Internal Medicine, Ghaem Medical Centre, School of Medicine, Mashhad University of Medical Sciences (MUMS), Mashhad, Iran*

<sup>2</sup> *Rheumatic Disease Research Center (RDRC), Ghaem Medical Center (MUMS), Mashhad, Iran*

<sup>3</sup> *Intern, Ghaem Medical Centre, School of Medicine, Mashhad University of Medical (MUMS), Mashhad, Iran*

**Aim:** Celiac disease is considered to be a malabsorption syndrome and it is characterized by chronic small intestinal disease caused by hypersensitivity to the gliadin fraction of gluten. Celiac disease comes with diarrhea, occasional steatorrhea, weight loss, and complications which is caused by anemia. The aim of this report is to present a case of Celiac disease with Looser zone of a young woman.

**Methods:** In this paper, we report a case of a 39-year-old woman presented with Celiac disease referred to the Rheumatology Clinic in Ghaem Medical Centre, Mashhad, Iran. Celiac disease is known to be associated with an increased occurrences of osteoporosis. In this report, we will discuss a patient referred to our hospital with low bone mineral density due to osteomalacia with Looser zone and longstanding celiac disease. There are a few reports of osteomalacia with Looser zone as the presenting symptom of celiac disease. In imaging studies, there was Looser zone in left hip.

**Results:** This case report shows that osteomalacia must be considered in the evaluation of low back pain of patients with Celiac disease.

**Conclusion:** To conclude, in celiac disease, due to risk of osteomalacia, treatment should be started to prevent bone loss complications.

**Keywords:** Celiac disease, osteomalacia, Looser zone, bone loss

**P2-6****Acquired Hemophilia as Initial Presentation in a Patient with Systemic Lupus Erythematosus****Zohre Khodamoradi<sup>1</sup>, Mohammad Ali Nazarinia<sup>2</sup>, Somaye Bazdar<sup>1</sup>**<sup>1</sup> *Student Research Committee, Shiraz University of Medical Sciences, Shiraz, Iran*<sup>2</sup> *Shiraz Geriatric Research Center, Shiraz University of Medical Sciences, Shiraz, Iran*

**Background:** Acquired hemophilia is a rare bleeding disease but may be associated with some autoimmune diseases. Acquired hemophilia may be the result of autoantibodies against factor VIII.

**Case Presentation:** In this study, we describe a 55 year old patient who developed hematoma and hematuria due to acquired hemophilia secondary to systemic lupus erythematosus (SLE). Then, she developed arthritis and thrombosis after some evaluation. Laboratory data showed prolonged aPTT, normal PT and platelet, low FVIII, high FVIII inhibitor, ANA, anti-ds-DNA and anti-cardiolipin. This patient was treated with corticosteroids, FEIBA and rituximab, so she recovered and was discharged about seven days later.

**Conclusion:** We should consider lupus erythematosus in patients with acquired hemophilia. Some cases of acquired hemophilia may be an SLE manifestation, so we should consider this situation to diagnose the disease properly.

**Keywords:** Hemophilia; systemic lupus erythematosus; factor VIII; hematoma; Rituximab

**P2-7**

# **Severe Thrombocytopenia and Bleeding, the Only and the Initial Presenting Feature of Systemic Lupus Erythematosus: A case-report**

**Mansour Babaei<sup>1,2</sup>, Behzad Heidari<sup>3</sup>**

<sup>1</sup> *Mobility Impairment Research Center, Assistant Professor of Department of Internal Medicine, Division of Rheumatology, Babol University of Medical Sciences, Babol, Iran*

<sup>2</sup> *Rouhani Hospital, Clinical Research Development Unit of Rouhani Hospital, Babol University of Medical Sciences, Babol, Iran*

<sup>3</sup> *Mobility Impairment Research Center, Full Professor of Department of Internal Medicine, Babol University of Medical Sciences, Babol, Iran*

**Background:** Systemic lupus erythematosus (SLE) presents with different clinical or laboratory manifestations including musculoskeletal, renal, hematological symptoms and signs. Leukopenia, thrombocytopenia are the most clinical presentation of hematologic system. However, initial presentation of SLE with massive bleeding due to severe thrombocytopenia as the only clinical feature of SLE is rare. We present a case of SLE presented with severe bleeding and platelet count of 1000 /mm<sup>3</sup>, and immunological abnormalities compatible with SLE who rapidly responded to intravenous immunoglobulin.

**Case presentation:** A 20 years old girl presented with severe epistaxis, gums bleeding and multiple ecchymotic lesions over both limbs which started since 2 days prior to admission to hematology ward. The patient had no history of hematologic or musculoskeletal disorders and no history of drugs usage. With the initial impression of coagulative disorders PT, PPT tests were normal but platelet count was 10,000 mm<sup>3</sup> at admission which decreased to 1000 mm<sup>3</sup> on second day, the white blood cell count was 3800 mm<sup>3</sup>, hemoglobin 11 gr/dl. With initial impression of idiopathic thrombocytopenia (ITP) intravenous immunoglobulin was administered and rheumatologic consultation was requested. A complete rheumatologic examination revealed no musculoskeletal, mucocutaneous, renal or pulmonary manifestations. The laboratory tests showed high levels of ANA, Anti-dsDNA, low serum level of C3 and C4, but level of Anti-cardiolipin antibodies, lupus anticoagulant, B2 GPI, were within normal limits. A diagnosis of SLE was confirmed according to the Systemic Lupus International Collaborating Clinical Criteria for Classification of Systemic Lupus Erythematosus. There was a rapid response to IVIG and corticotherapy, and the patient was discharged after 5 days with platelet=54000, WBC=5700, Neutrophil 82%, Lymphocyte 18% of hospitalization.

**Conclusion:** Although SLE usually presents with mild thrombocytopenia, but diagnosis of SLE should be considered in any patient's particularly young girl who presents with initial diagnosis of ITP.

**Keywords:** Severe thrombocytopenia, Systemic Lupus, erythematosus, Young girl, ant-dsDNA

**P2-8****Association Between Physical Activity and Quadriceps Muscle Strength with Bone Mineral Density in the Elderly Men****Mansour Babaei<sup>1</sup>, Alijan Ahmadi Ahangar<sup>2</sup>, Ali Bijani<sup>3</sup>, Seyed Reza Hosseini<sup>3</sup>, Behzad Haidari<sup>\*2</sup>**<sup>1</sup> *Department of Internal Medicine, Division of Rheumatology, Clinical Research Development Unit of Rouhani Hospital, Babol University of Medical Sciences, Babol, Iran*<sup>2</sup> *Department of Internal Medicine, Mobility Impairment Research Center, Babol University of Medical Sciences, Babol, Iran*<sup>3</sup> *Social Determinants of Health Research Center, Health Research Institute, Babol University of Medical Sciences, Babol, Iran*

**Background:** A positive association between physical activity (PA) and bone mineral density (BMD) has been shown and its effect is thought to be mediated by increasing muscle strength. The present study was conducted to determine the association between osteoporosis with PA and quadriceps muscle strength (QMS) in the elderly men

**Methods:** The population of this study comprised all male inhabitants aged > 60 years (553 male) of the Amirkola Health and Ageing Project (AHAP). Data were collected in regard to demographic, clinical and biochemical characteristics. BMD at the femoral neck (FN) and lumbar spine (LS) was determined by dual energy x-ray absorptiometry method. QMS was assessed by dynamometry method and PA by using a standard questionnaire. The association of osteoporosis as a dependent variable and PA as well as QMS, as independent variables was determined by multiple logistic regression analysis with simultaneous adjustment for all covariates, by calculation of odds ratio (OR) and 95% confidence interval (95%CI).

**Results:** In logistic regression analysis higher level of education, diabetes, MetS, abdominal obesity, were associated with significantly lower risk of osteoporosis respectively. After adjustment for all covariate the positive association between osteoporosis with anaemia and history of fracture remained significant but the negative association of osteoporosis remained at significant levels only with BMI, diabetes, and in subjects with QMS. QMS > 35 kg the risk of osteoporosis was lower by 52% (95% CI, 11%-75%, p=0.002) as compared with QMS<30 kg. However, the association between PA and osteoporosis remained no significant.

**Conclusion:** These findings indicate that in the elderly men aged 60 years and over, higher QMS is associated with lower risk of femoral and lumbar spine osteoporosis

**Keywords:** Elderly men, Osteoporosis, Physical activity, Quadriceps muscle strength, Association

# **P2-9**

## **Character and Type of Diseases of Elderly Patients Lead to Hospital Admission in Rheumatology Wards of Shiraz/Iran over Period of 2008-2013**

**Saeedeh Shenavandeh<sup>1</sup>, Elham Sadeghi<sup>2</sup>**

<sup>1</sup> *Department of Internal Medicine, Division of Rheumatology, Shiraz University of Medical Sciences, Shiraz, Iran*

<sup>2</sup> *School of medicine, Shiraz University of Medical Sciences, Shiraz, Iran*

**Aim:** Physiologic changes associated with aging and presence of comorbid diseases may complicate rheumatic diseases in elderly patients. New trends to manage rheumatology patients outward have been suggested. In our study, we want to determine the prevalence of rheumatologic diseases lead to admission of elderly patients, the main causes, duration and number of their hospitalizations.

**Methods:** The data of patients with age  $\geq 60$  was admitted in rheumatology wards of Hafez and Faghihi hospitals related to the Shiraz University of Medical Science from March 2008 to February 2013 were studied. The last diagnosis of admissions of younger patients in these wards was recorded.

**Results:** In elderly group, there was 399 valid data. By simple random sampling, 480 young patients were selected. There wasn't significant difference for duration of hospital stay between younger and older patients. In Elderly group, 76.9% had comorbid diseases and hypertension (62.4%) was the most common. The presence of psychiatric problems showed significance association with the number of admissions. In elderly patients the most common diseases lead to admission in rheumatology wards were rheumatoid arthritis (RA), osteoarthritis, crystal arthropathy, systemic lupus erythematosus, and scleroderma. Also the most common causes of recurrent admission were: psoriatic arthritis and Behçet's disease. In total 484 admissions 147 (30.4%) were due to new presentation of a rheumatologic disease including RA, giant cell arteritis (GCA), bacterial arthritis, undifferentiated connective tissue diseases (CTD) and crystal arthropathy. About 69.6% of admissions was allocated to patients with a known diagnosed rheumatologic disease mostly due to disease flare up.

**Conclusion:** The most common disease leading to admission of elderly patients was RA. Mean duration of stay in young and elderly groups was the same. The most common comorbid diseases were hypertension and the most common one lead to multiple admissions was presence of psychiatric problems. The most common newly diagnosed hospitalized rheumatic diseases were: RA, GCA, bacterial arthritis, undifferentiated CTD and crystal arthropathies.

**Keywords:** Rheumatic diseases; hospital admission; elderly

**P2-10****The Effect of Aquatic Exercise on Disease Activity Score in Women with Rheumatoid Arthritis**

**Said Mostafa Saidmardani<sup>\*1</sup>, Miramir Aghdashi<sup>1</sup>, Fatemeh Asghari<sup>2</sup>,  
Golshan Kamali Zonouz<sup>3</sup>, Parastoo Alizade<sup>4</sup>**

<sup>1</sup> Department of Internal Medicine, assistant professor of Internal Medicine, Urmia university of medical sciences, Urmia, Iran

<sup>2</sup> Department of Physiology, MSc in Sport Physiology, Urmia university, Urmia, Iran

<sup>3</sup> Department of Emergency Medicine, assistant professor of Emergency Medicine, Urmia university of medical sciences, Urmia, Iran

<sup>4</sup> Medical Doctor, Urmia university of medical sciences, Urmia, Iran

**Introduction:** Rheumatoid Arthritis is the most common form of chronic inflammatory Arthritis. In addition to medical treatments, the exercise is important to control of pain and preserve the patients' performance. This study assessed the effect of exercise in water in decreasing the pain intensity (VAS), the disease activity score (DAS 28) and inflammatory markers.

**Method:** In this clinical trial 16 women (40 - 60 years old), with 3-5 years duration of rheumatoid arthritis were studied. The medical treatment were unchanged during the study. The patients have been done aquatic exercises in the shallow part of the pool for 8 consecutive weeks. DAS-28, VAS for pain, ESR and CRP have been assessed at three different times as follows: before the first session, after the last session, two months after the last session Data were analyzed with SPSS (v 20) software.

**Results:** This study demonstrated that VAS for pain (p value: 0.001) and DAS- 28 (p value: 0.001) were significantly decreased at the end of the exercise. Similarly the level of ESR (p: 0.002) and CRP (p: 0.006) were significantly decreased. By stopping the exercise, the above mentioned amounts gradually raised during 2 months.

**Conclusion:** This study showed that the aquatic exercise was effective in reduction of these variables. Furthermore, by discontinuation of the exercise, its effects decreased during 2 months. The continuity of aquatic exercise can be used to control the activity of disease ; and it may decrease the need for analgesics and DMARDS.

**Keyword:** Rheumatoid arthritis, aquatic exercise, DAS28, VAS



**P3.1****Long-term Outcome of Treatment with Disease-Modifying Antirheumatic Drugs in Patients with Palindromic Rheumatism****Alireza Khabbazi<sup>1</sup>, Mohammad Goli<sup>2</sup>***<sup>1</sup> Connective Tissue Diseases Research Center, Associated Professor, Internal Medicine Department, Tabriz University of Medical Sciences, Tabriz, Iran**<sup>2</sup> Connective Tissue Diseases Research Center, Internist, Tabriz University of Medical Sciences, Tabriz, Iran*

**Aim:** Palindromic rheumatism (PR) is characterized by multiple, episodic and recurrent attacks of arthritis and periartthritis, occurring at irregular intervals and lasting from a few hours to several days. PR may evolve to rheumatoid arthritis (RA) or other inflammatory connective tissue diseases. This study aimed to evaluate long-term efficacy of hydroxychloroquine and other disease-modifying antirheumatic drugs (DMARDs) in treatment of PR and factors predict the results of treatment in a cohort of patients with PR.

**Methods:** In this retrospective study, patients with PR which diagnosed by Pasero and Barbieri criteria and had been treated with DMARDs were included. Complete remission was defined as complete control of attacks. Partial remission was defined as at least 50% decrease in attacks frequency. According our center protocol in all patients low dose prednisolone and hydroxychloroquine was started. Methotrexate and then sulfasalazine and other DMARDs sequentially were added to the treatment regimen in treatment resistant patients.

**Results:** This study included 51 consecutive patients (32 females, 19 males) with PR which followed for 29.9±19.7 months. Complete and partial remission occurred in 34 (66.7%) and 10 (19.6%) patients, respectively. Drug free remission was occurred in 9 (17.6%) patients. RA was developed in 3 (5.9%) patients. Prednisolone was discontinued in 17 (33.3%) patients. No relationship was found between demographic characteristic of patients, clinical findings, rheumatoid factor and anti-CCP status and response to treatment.

**Conclusion:** Hydroxychloroquine alone or in combination with methotrexate and other DMARDs and low-dose prednisolone could induce remission in PR and prevent development of RA.

**P3-2****Is Smoking a Risk Factor for Behcet's Disease?****Alireza Khabbazi<sup>1</sup>, Aida Malekmahdavi<sup>2</sup>, Barmak Yaaghoobian<sup>2</sup>***<sup>1</sup> Connective Tissue Diseases Research Center, Associated Professor, Internal Medicine Department, Tabriz University of Medical Sciences, Tabriz, Iran**<sup>2</sup> Connective Tissue Diseases Research Center, PhD, Tabriz University of Medical Sciences, Tabriz, Iran***Aim:** To investigate the association between smoking and Behcet's disease (BD).**Methods:** In 179 consecutive patients with BD who attended the outpatient clinic of Connective Tissue Diseases Research Center were compared with 310 healthy controls matched for age, sex and 714 first degree family of patients. A detailed smoking history was recorded and expressed as pack years smoked. In the case group only patients with history of smoking before disease onset included as smoker. Activity of BD was measured by Iranian Behcet's Disease Activity Measure (IBDDAM), total inflammatory activity index (TIAI) and Behcet's Disease Current Activity Form (BDCAF).**Results:** One hundred seventy-nine patients with BD were included. In the case group 46 (25.6%) patients were smoker. In the first-degree family of patients and in the healthy control group 17.5% and 20.3% were smoker respectively. Difference was significant. No association was found between smoking and clinical manifestation of BD, but TIAI in smokers was higher than non-smokers.**Conclusions:** Smoking is a risk factor for BD.

**P3-3**

## **Occupational Therapy in Children with Epidermolysis Bullosa**

**Ghodsye Joveini, Mahnaz Hejazi shirmard\***

*PhD Candidate of Occupational Therapy, Iran University of Medical Sciences, Faculty of Rehabilitation, Occupational Therapy Department*

**Aim:** Epidermolysis Bullosa (EB) consists of a group of genetic hereditary disorders that is characterized by blistering of the skin and mucosa following minor mechanical trauma. Presently the management of EB is supportive and is aimed at relieving symptoms by providing infection control, wound healing, feeding, oral hygiene and rehabilitation but epidermolysis group disease affect many organ systems and their management require an interdisciplinary approach. Multidisciplinary approach is needed to deal with multiple consequences of disease such as contracture, growth retardation, pain, social and psychological problems that can negatively impacts on affected children and their caregivers. The purpose of the study was to review the evidence about occupational therapy interventions in these patients.

**Methods:** A comprehensive literature search on articles and book chapters was carried out. Eight bibliographic databases, three Iranian (SID, IranDoc, Magiran) and four international (PubMed, google scholar, Scopus, Cochran), without time limitation were searched. Multiple combinations of keywords were used. Two researchers reviewed the title and abstracts independently. Selection Criteria were both qualitative and quantitative studies which appeared to assess effectiveness of occupational therapy for children with EB and their families. At the next stage, full texts were reviewed.

**Results:** Through three refining steps, 12 articles and 2 books out of 266 records were found to be related to the present study.

**Conclusion:** Multiple physical, social and psychological problems such as being in pain, having difficulties with participation and meeting social demands, lack of understanding of others and feeling of being different are reported frequently in patients with EB. These problems may decrease quality of life of EB patients and their caregivers but rarely are considered. Rehabilitative interventions and specifically occupational therapy can help them and their families to overcome some problems but this area is received scant attention. Due to lack of evidence about effectiveness of rehabilitative approaches for EB patients in Iran, It seems that there is growing needs for more researches in this field.

**Keywords:** Epidermolysis Bullosa, Children, Occupational therapy

**P3-4****Association of Knee Osteoarthritis and Memory Impairment****Sasan Fallahi<sup>\*1</sup>, Farhad Afsari<sup>2</sup>, Nima Pakaghideh<sup>3</sup>, Ali Reza Rezai<sup>3</sup>**<sup>1</sup> Assistant professor of rheumatology, Internal Medicine Division, Baharloo Hospital, Tehran University of Medical Sciences, Tehran, Iran<sup>2</sup> Assistant professor of neurology, Internal Medicine Division, Baharloo Hospital, Tehran University of Medical Sciences, Tehran, Iran<sup>3</sup> General practitioner, Internal Medicine Division, Baharloo Hospital, Tehran University of Medical Sciences, Tehran, Iran

**Aim:** Knee osteoarthritis (OA) is one of the most prevalent morbidities of the joints in Iran and the entire world. Localized synovitis due to mechanical factors may be an etiology for this disorder. Many studies have shown a link between local inflammation and Alzheimer disease and also, between autoimmune diseases such as lupus and Alzheimer disease. Paying attention to the role of inflammation in the development of both diseases, this study was conducted to examine the association between knee OA and memory impairment.

**Methods:** A total of 260 cases with knee OA were included in a case-control study by using Kallegrren-Lawrence criteria  $\geq 2$  and compared with 260 age, gender and educational level-matched controls without knee OA. The people with any chronic inflammatory or autoimmune diseases such as rheumatoid arthritis, collagen vascular diseases, multiple sclerosis, delirium, malignancy, history of alcohol or other drug abuse and cerebrovascular disorders were not included in the study. Cognition status of both groups was measured and compared by using validated Persian version of mini-mental status examination (MMSE). MMSE is a 19-item questionnaire (score 0-30) which assesses briefly various domains of the cognition status. Score less than 23 and 20 were considered as memory hurt for literate and illiterate people, respectively.

**Results:** There was significant association between OA and memory hurt ( $P < 0.001$ ) and also between OA and MMSE score ( $P < 0.001$ ). After considering other probable confounding variables (age, educational level, diabetes mellitus, hypertension, smoking, hyperlipidemia, gender and using non-steroidal anti-inflammatory drugs), the significant relationship was persistent ( $P < 0.001$ ). However, multiple regression models showed the predictive role of age, educational level, diabetes mellitus, hypertension, hyperlipidemia and smoking in developing cognitive impairment.

**Conclusion:** knee OA is associated with cognitive impairment. This association is independent of the effect of other factors such as age and educational level. Further studies on various aspects of memory and using other memory assessment tools in patients with OA are recommended. Mental exercises under the supervision of qualified expert may help to prevent the progress of memory impairment in these patients.

**Keywords:** Knee Osteoarthritis, Cognition, Memory

**P3-5****ISG & ICBT Criteria in Azeri Population****Alireza Khabbazi, Leila Delnabi, Aliasgar Ebrahimi, Behnaz Ghamari, Farid Karkon Shayan\****Connective Tissue Diseases Research Center, Tabriz University of Medical Sciences, Tabriz Iran*

**Aim:** Behcet's disease (BD) is a multisystem inflammatory disease characterized by recurrent oral ulcers, genital ulcers, skin lesions and uveitis. Various criteria were developed for diagnosis of BD. The aim of the present study was to compare the sensitivity, specificity and accuracy of the international study group (ISG) criteria and international criteria for Behcet's disease (ICBD) in Azeri population.

**Methods:** The study population included 211 consecutive patients with BD and 648 controls with one of the major symptoms of BD who were referred to the Connective Tissue Diseases Research Center (CTDRC). The sensitivity, specificity, and accuracy of each set of the criteria were measured.

**Results:** Sensitivity and accuracy of ICBT criteria was more than ISG criteria. Sensitivity, specificity, accuracy of ISG criteria were 64.9%, 99.7% and 91.2%, respectively. Sensitivity, specificity and accuracy of ICBT criteria calculated 94.7%, 99.6% and 99.0%, respectively.

**Conclusion:** The results of this study suggest that the ICBT criteria has more sensitivity and accuracy in Azeri populations.

**Keywords:** Behcet's Disease, ISG, ICBT, Azeri Population.

**P3-6****Is There a Correlation Between the Clinical, Radiological and Ultra-Sonographic Findings of Osteoarthritis of the Knee?**

**Anousheh Haghighi<sup>1</sup>, Nahid Deghani Arani<sup>2</sup>, Nahid Kianmehr<sup>\*3</sup>, Mani Mofidi<sup>4</sup>,  
Mahgol Farjadnia<sup>5</sup>, Elham Rajae<sup>6</sup>, Mehrdad Dargahi MalAmir<sup>7</sup>**

<sup>1</sup> Rasoul Akram Hospital, Department of Internal Medicine, Iran University of Medical Sciences, Iran, Tehran

<sup>2</sup> Rasoul Akram Hospital, Iran University of Medical Sciences, Iran, Tehran.

<sup>3</sup> Nahid Kianmehr, Associate Professor of Rheumatology, Department of Internal Medicine, Iran University of Medical Sciences, Iran, Tehran, (corresponding author).

<sup>4</sup> Akram Hospital, Emergency Management Research Center, Iran University of Medical Sciences, Iran, Tehran

<sup>5</sup> Rasoul-Akram Hospital, Iran University of Medical Sciences, Iran, Tehran

<sup>6</sup> Department of Rheumatology, Ahvaz Jundishapur University of Medical Science, Iran, Tehran

<sup>7</sup> Department of Internal Medicine, Ahvaz Jundishapur University of Medical Science, Iran, Ahvaz

**Objectives:** The association between the severity of knee pain and the clinical and radiological findings can help to assess the severity of knee osteoarthritis. The present study aimed to assess the relationship between knee pain severity and clinical, radiological and ultra-sonographic findings in patients with knee osteoarthritis.

**Methods:** We recruited 52 patients with primary osteoarthritis. Physical examination and ultrasonography were done. Plain radiography was done within 3 weeks of clinical examination.

**Results:** The average age of participants was 59.27±9.85 years. Using multivariable linear regression modeling, pain severity had no significant association with any of the covariates including epidemiological, clinical and ultrasound findings. The severity of clinical symptoms and stiffness was associated with the ultrasound finding of Baker's cyst as well as with tenderness of internal compartment and suprapatellar effusion. In addition, the level of daily function remained to be associated with baker's cyst in ultrasound assessment as well as with tenderness of internal compartment.

**Conclusion:** Our study showed no association between ultra-sonographic, clinical or radiological findings and the level of knee pain; however, knee function, disability, and the level of quality of life are associated with some clinical and ultrasound evidences of knee osteoarthritis.

**Keywords:** knee, osteoarthritis, ultrasound, x-ray

**P3-7****A Case of Rheumatoid Arthritis Complicated with Chronic Myeloid Leukemia and Intracranial Epidermoid****Parviz Ghezelbash, Aida Karami, Zahra Ghezelbash, Parisa Karami\****Zanjan university of medical science, radiology department, zanjan MRI center*

Rheumatoid arthritis is a systemic disorder which could involve any synovial joints and hematologic malignancy is seen in RA patients.

The most common malignancy in these patients are lymphoproliferative leukemia. There are only 10 case of RA associated with CML in English literature.

We report a unique RA patient with neurological problem because of RA cervical joint damage and consequence extensive intracranial epidermoid which is complicated with CML.

**Keyword:** cranial epidermoid, basilar invagination, Rheumatoid arthritis, chronic myeloid leukemia.

**P3-8****Comparison of Prevalence of Metabolic Syndrome in Male and Female Rheumatoid Arthritis Patients****Maryam Mobini\****Rheumatologist, Associate professor, Department of Internal Medicine, Diabetes Research Center, Faculty of Medicine, Mazandaran University of Medical Sciences, Sari, Iran*

**Aim:** There are some evidences of association of Metabolic syndrome (MetS) and its complications in rheumatologic disorders. It was shown inflammatory cytokines such as TNF $\alpha$  and interleukin 6 (IL-6) can reduce insulin activity and inhibits insulin receptor that leads to hyperglycemia, compensatory hyperinsulinemia, and dyslipidemia. On the other hand, the abdominal fat may be a source of production of cytokines such as TNF $\alpha$ , IL-6 and adiponectin. Chronic treatment with various medications such as glucocorticoids and hydroxychloroquine, physical activity and concomitant disorders such as hypothyroidism may contribute to change incidence of hypertension, blood glucose, lipid profile and visceral obesity. The aim of the present study was to evaluate and comparison of the prevalence of MetS in male and female rheumatoid arthritis (RA) patients.

**Methods:** One hundred fifty RA patients, 50 male and 100 female were compared regarding demographic, clinical features and laboratory parameters. MetS was diagnosed according to the 2005 National Cholesterol Education Program (Adult Treatment Panel III) (NCEP/ATP III). Statistical analysis was performed in SPSS version 19, and results were considered significant at  $P < 0.05$ .

**Results:** The mean age and disease duration were  $50.30 \pm 7.9$  and  $4.92 \pm 4.9$  years consequently and were similar in two groups. In female and male patients, the mean of Health assessment questionnaire (HAQ) were  $3.20 \pm 1.2$  vs  $2.32 \pm 1.2$  ( $P = 0.000$ ) and the mean of disease activity score 28 (DAS 28) were  $0.75 \pm 0.71$  vs  $0.36 \pm 0.64$  ( $P = 0.001$ ). There was not any difference in dose of prednisolone or hydroxychloroquine. MetS was present in 50%% in female patients and 24% in male patients ( $P = 0.003$ ). MetS components were not different in two groups, except for waist circumference which was higher in women ( $P = 0.000$ ).

**Conclusion:** Female patients with RA presented with high MetS prevalence, specially for high waist circumference. Disease activity and disability were more severe in this group. Inflammation and impaired mobility may lead to changes in the metabolism of the body. MetS components should be routinely investigated in these disorders to reduce the occurrence of MetS and its complications. A better control of the disease may be effective in reducing the metabolic syndrome in patients.

**Keywords:** Metabolic syndrome, rheumatoid arthritis, epidemiology.



**P3-9****Prevalence of Inflammatory Rheumatic Diseases in a Rheumatologic Outpatient Clinic: Analysis of 12626 Cases****Mohammad Hassan Jokar***Internal Medicine Department, Emam Reza Hospital, Mashhad University of Medical Sciences, Mashhad, Iran*

**Aim:** Inflammatory rheumatic diseases are a heterogeneous class of often chronic autoimmune disorders. They are among the most common chronic diseases. They cause a major health problem in the general population. We aimed to assess the distribution of inflammatory systemic rheumatic diseases in a rheumatologic outpatient clinic.

**Methods:** The medical records of patients diagnosed with any type of inflammatory rheumatic diseases in a non-hospital based rheumatologic outpatient practice were retrospectively studied. We made the diagnosis using the agreed classification criteria. We extracted the following data from the patients' files: diagnosis, age at the disease onset, and their gender.

**Results:** The total number of patients was 12626. The most common diseases were rheumatoid arthritis 47.30%, seronegative spondyloarthropathies 17.23%, systemic lupus erythematosus 8.10%, gout 7.84%, and vasculitis 6.84%. Patients were aged from 1 to 93 years, with a mean SD age of 41.17 SD 39.70 years. Most patients were in the third, fourth and fifth decades of their life. Sixty four percent of all patients were female. The overall sex ratio (women to men) was 1.8:1. The proportion of women was 95% in Takayasu's arteritis, 92% in systemic lupus erythematosus, 87% in Sjögren's syndrome, 78% in rheumatoid arthritis, and 33% in AS.

**Conclusion:** The age at the onset of inflammatory rheumatic diseases in our region is lower than some other regions. The frequency of Behcet's disease, systemic lupus erythematosus, and systemic sclerosis was more than most other studies, but gout, polymyalgia rheumatica, and psoriatic arthritis were less frequent in our study.

**Keywords:** Arthritis, rheumatic diseases, inflammatory, Rheumatology, Epidemiology.

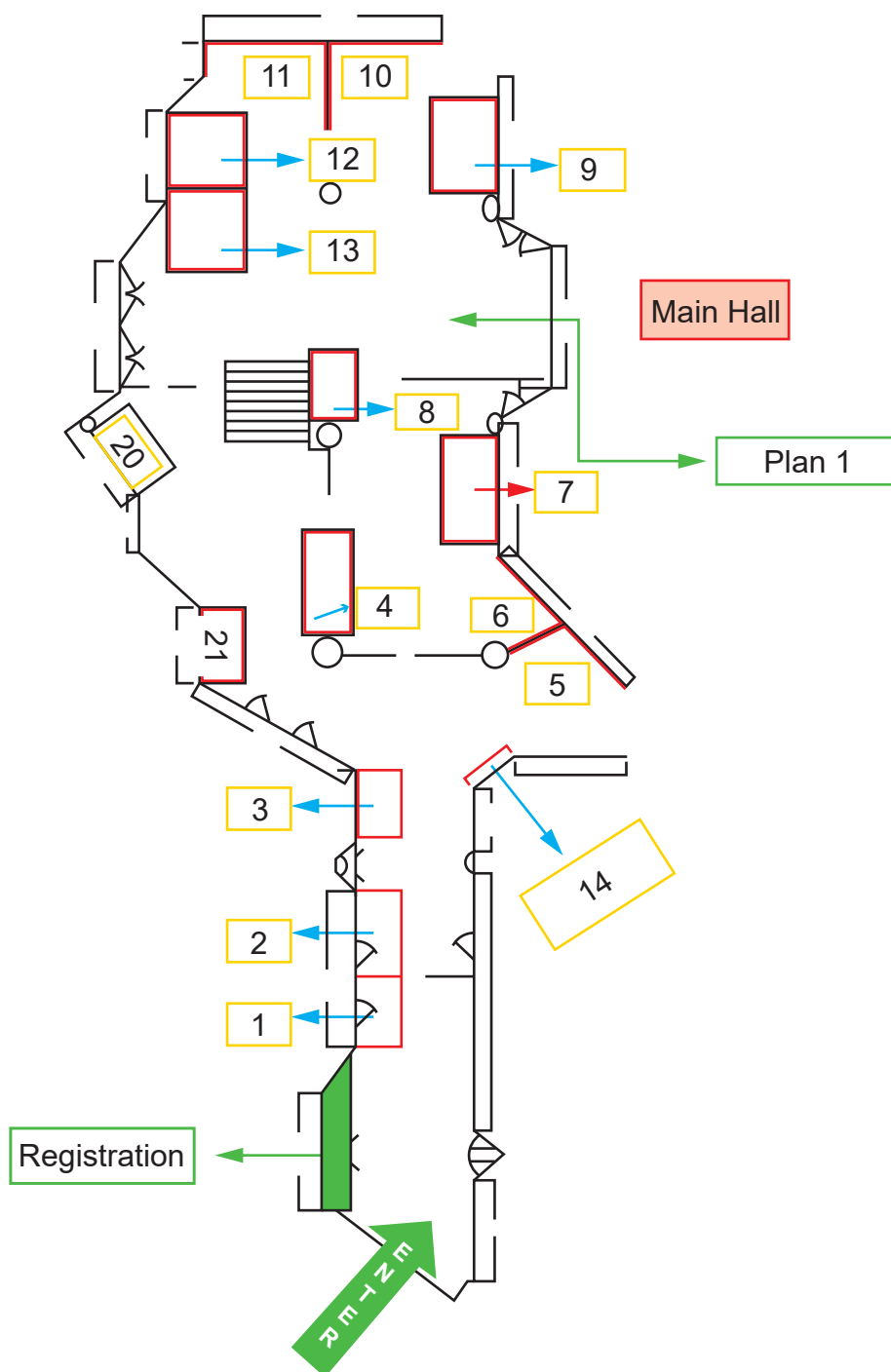


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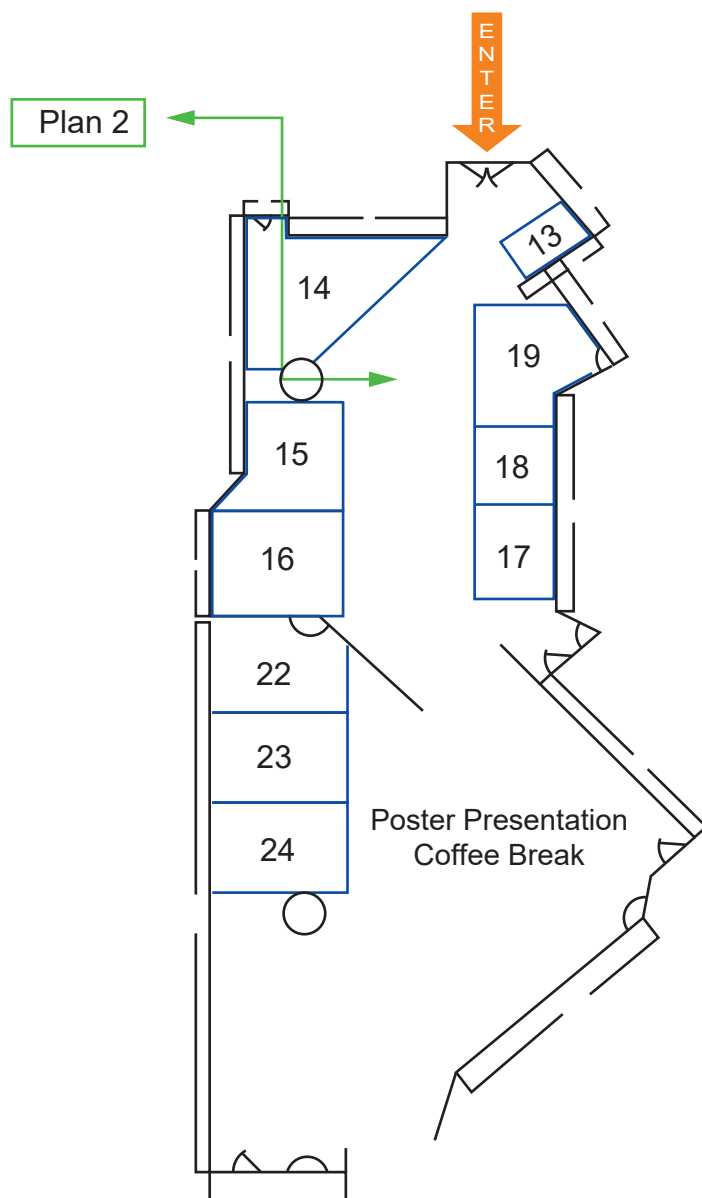
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## FLOOR MAP



## FLOOR MAP



## OVERVIEW MAP

