



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

**ABSTRACT BOOK**



**16<sup>th</sup>–18<sup>th</sup> October 2019  
Tehran, Iran**



**IRANIAN  
RHEUMATOLOGY  
ASSOCIATION**

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## WELCOME MESSAGE

### In The Name of Allah

It is my pleasure that our colleagues are all together in the 13<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 Iranian Rheumatology Registry is now run and 67 users from 21 Center are work with it. And about 33uo patient with 6090 visits are registered on it.

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

Please allow me to express my hearts thanks to the manages of registry his assistants, all center and all of our colleagues, Who worked hard in this way.



### Best Regards

Professor Ahmadreza Jamshidi, M.D  
President of Iranian Rheumatology Association  
President of the 13<sup>th</sup> Annual Congress of  
Iranian Rheumatology Association

## WELCOME MESSAGE

Dear colleagues,

It gives us a great honor to invite you to attend the 13<sup>th</sup> Annual Iranian Congress of Rheumatology in Tehran. This program includes 1 main Lecture and 7 scientific session about important topics of Rheumatology which is conducted by Rheumatologist of Iranian medical schools.

Also we have two workshops on capillaroscopy and Densitometry.

We would like you to take this opportunity to discuss about the latest clinical and therapeutic advances in Rheumatologic disease.

We very much look forward to meeting you at the congress and would be quite pleased if you could enjoy Tehran.



**Best regards**

Zahra Zakeri, M.D

Scientific Secretary of the 13<sup>th</sup> Iranian  
Rheumatology Association Congress

Professor of Rheumatology,

Shahid Beheshti University of Medical Sciences

## COMMITTEES

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

**Secretary:** Zahra Zakeri (Iran) - *Rheumatology*

### SCIENTIFIC COMMITTEE

Nafiseh Abdolahi (Iran) – *Rheumatology*

Elham Aflaki (Iran) – *Rheumatology*

Arman Ahmadzadeh (Iran) – *Rheumatology*

Mahmoud Akbarian (Iran) – *Rheumatology*

Maassoumeh Akhlaghi (Iran) – *Rheumatology*

Simin Almasi (Iran) – *Rheumatology*

Fazlollah Ayatollahi (Iran) – *Rheumatology*

Ali Bidari (Iran) – *Rheumatology*

Fereydoun Davatchi (Iran) – *Rheumatology*

Aliasghar Ebrahimi (Iran) – *Rheumatology*

Mohammad Mahdi Emam (Iran) – *Rheumatology*

Seyedeh Tahereh Faezi (Iran) – *Rheumatology*

Reza Farrokh seresht (Iran) – *Rheumatology*

Faraneh Farsad (Iran) – *Rheumatology*

Alimohammad Fatemi – *Rheumatology*

Farhad Gharibdoost (Iran) – *Rheumatology*

Kamila Hashemzadeh (Iran) – *Rheumatology*

Ahmadreza Jamshidi (Iran) – *Rheumatology*

Mehrzad Hajaliloo (Iran) – *Rheumatology*

Mohammad Hassan Jokar (Iran) – *Rheumatology*

Hoda Kavosi (Iran) – *Rheumatology*

Hadi Karimzadeh (Iran) – *Rheumatology*

Nahid Kianmehr (Iran) – *Rheumatology*

Mandana Khodashahi (Iran) – *Rheumatology*

Zahra Habibagahi (Iran) – *Rheumatology*

Anousheh Haghighi (Iran) – *Rheumatology*

Baharak Tasorin (Iran) – *Rheumatology*

Mahdi Mahmoudi (Iran) - *Immunology*

Zahra Mirfeizi (Iran) – *Rheumatology*

Ali Akbar Mohammadi (Iran) – *Nutritionist*

Karim Mowla Hoveyze (Iran) – *Rheumatology*

Mohammad Moslemizadeh (Iran) – *Rheumatology*

Shafieh Movaseghi (Iran) – *Rheumatology*

Maryam Mousavi (Iran) – *Rheumatology*

Abdolhadi Nadji (Iran) – *Rheumatology*

MohammadAli Nazarinia (Iran) – *Rheumatology*

Mohammad Bagher OWLIA (Iran) – *Rheumatology*

Mohammad Hossein Pourgharib (Iran) – *Sport Medicine*

Zahra Rezaei Yazdi (Iran) *Rheumatology*

Alireza Rajaei (Iran) – *Rheumatology*

Elham Rajaei (Iran) – *Rheumatology*

Abdolrahman Rostamian (Iran) – *Rheumatology*

Ahmad Salimzadeh (Iran) – *Rheumatology*

Mansour Salesi (Iran) – *Rheumatology*

Zhaleh Shariatti Sarabi (Iran) – *Rheumatology*

Fatemeh Shirani (Iran) – *Rheumatology*

Alireza Sadeghi (Iran) – *Rheumatology*

Maryam Sahebari (Iran) – *Rheumatology*

Saeedeh Shenavandeh (Iran) – *Rheumatology*

Farhad Shahram (Iran) – *Rheumatology*

Taraneh Tarakemeh (Iran) – *Rheumatology*

Mozhdeh Zabihyeganeh (Iran) – *Rheumatology*

### ORGANIZING COMMITTEE

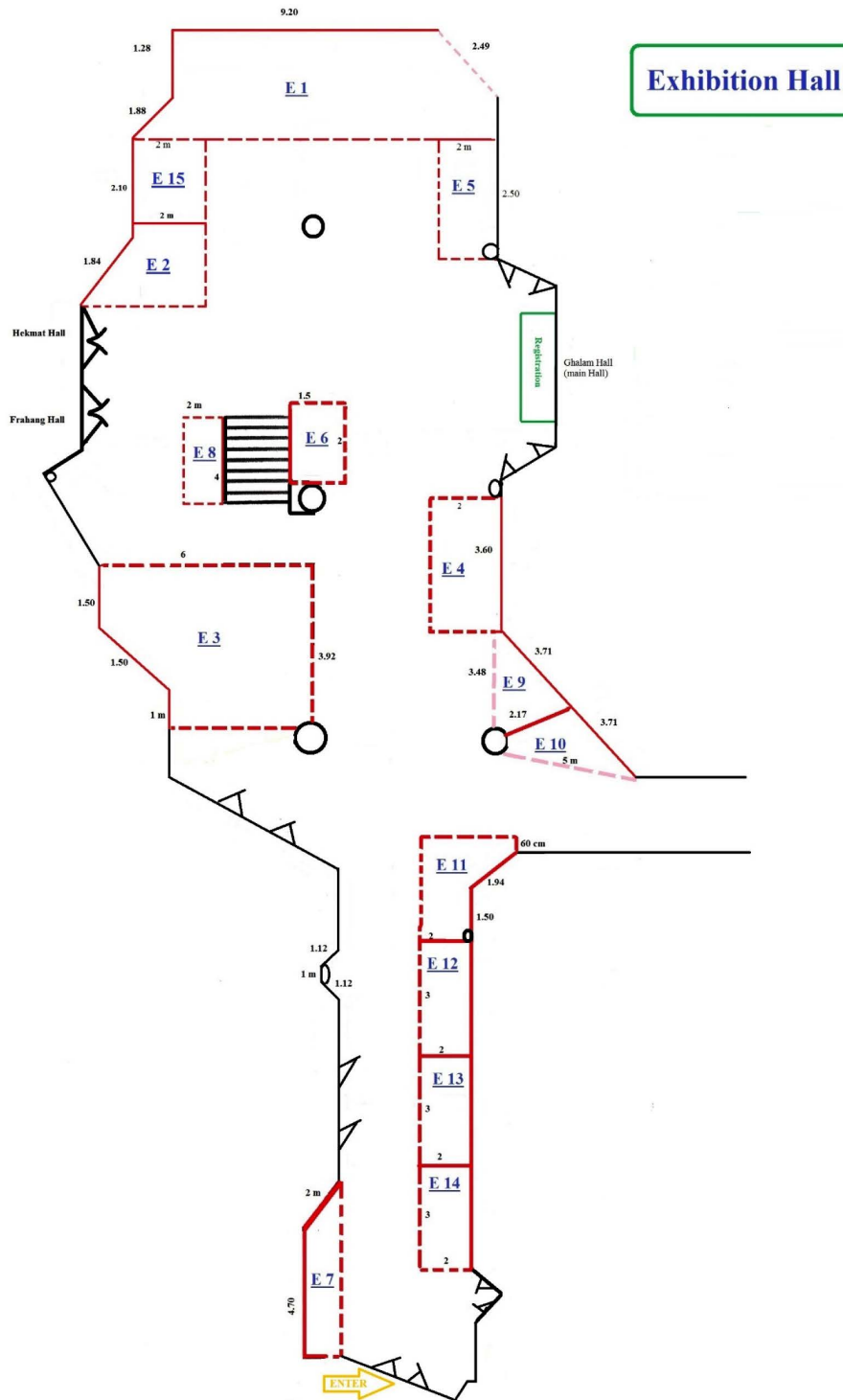
Mohsen G. Soroush, MD.

Marjan Khademian, Bsc.

## ACCESS MAP



# FLOOR MAP



## TIME TABLE

	7:30	8:00	9:00	10:00	11:00	12:00	13:00
Wednesday, October 16	Scientific Program	Registration	Opening Ceremony	<b>Scientific Session 1: Osteoporosis</b> Chair: Ali Bidari, <u>Fatemeh Shirani</u> , Nahid Kianmehr <b>S1-1: Glucocorticoid induced Osteoporosis (GIOP):</b> Mozhdeh Zabihyeganeh <b>S1-2: Treatment and Follow up of patient with Osteoporosis:</b> Anousheh Haghighi <b>S1-3: Diagnosis, Evaluation and treatment of patient with vertebral fractures in Osteoporosis:</b> Baharak Tasorian	Poster presentation	Coffee Break	<b>Scientific Session 2: Inflammatory Myopathies</b> Chair: Abdolhadi Nadji, <u>Mohammad Moslemizadeh</u> , Mohammad Mahdi Emam <b>S2-1: New classification and autoantibodies in myositis:</b> Faraneh Farsad <b>S2-2: Immune mediated necrotizing myopathies and myositis associated with malignancies:</b> Arman Ahmadzadeh <b>S2-3: Progresses in Diagnosis and treatment of Inclusion Body Myositis:</b> Reza Farrokh Seresht <b>S2-4: Refractory Myositis:</b> Mohammad Mahdi Emam
	Place	Registration Pavilion (Exhibition hall)		Ghalam Hall	Exhibition Hall	Exhibition hall (First floor)	Ghalam Hall
Thursday, October 17	Scientific Program		<b>Main Lecture: Rheumatologic manifestations in patients with organ transplantation</b> Chair: Freydoun Davatchi Speaker: Farhad Shahram <b>Questions and Answers</b>	<b>Scientific Session 4: Oral presentations</b> Chair: <u>Zahra Rezaei Yazdi</u> , Mahdi Mahmoudi, Mohammad Bagher OWLIA <b>9 Presentation, each presentation 10 minutes.</b>	Poster presentation	Coffee Break	<b>Annual Meeting of Iranian Rheumatology Association</b>  <b>Questions and Answers</b> Coordinator: Mohammad Mahdi Emam Mohammad Mahdi Emam, Arman Ahmadzadeh, Reza Farrokh Seresht, Faraneh Farsad
	Place		Ghalam Hall	Ghalam Hall	Exhibition Hall	Exhibition hall (First floor)	Ghalam Hall
Friday, October 18	Scientific Program		<b>Scientific Session 6: Auto Inflammatory Disorders</b> Chair: Farhad Gharibdoost, Ahmadreza Jamshidi, Seyedeh Tahereh Faezi <b>S6-1: The role of Auto Inflammation in the pathogenesis of Rheumatic diseases:</b> Shafieh Movaseghi <b>S6-2: Clinical approach and diagnosis of Auto Inflammation in Rheumatic diseases:</b> Ahmad Salimzadeh <b>S6-3: Treatment of Auto Inflammation in Rheumatic diseases:</b> Maassoumeh Akhlaghi	Coffee Break and Poster presentation	<b>Scientific Session 7: Osteoarthritis</b> Chair: <u>Zhaleh Shariati Sarabi</u> , Mohammad Hassan Jokar, Alireza Sadeghi <b>S7-1: Pathogenesis of osteoarthritis:</b> Fazlollah Ayatollahi <b>S7-2: Challenges of non-pharmacological treatment:</b> Mandana Hashemzedehe <b>S7-3: Challenges of pharmacological treatment:</b> Nafisseh Abdollahi <b>S7-4: ACR treatment guidelines:</b> Mandana Khodashahi <b>Questions and Answers</b> Coordinator: Mohammad Hassan Jokar Fazlollah Ayatollahi, Mandana Hashemzedehe, Nafisseh Abdollahi, Mandana Khodashahi, Maryam Sahebari, Zahra Mirfeizi		Closing Ceremony
	Place		Ghalam Hall	Break Room (First Floor)	Ghalam Hall		

13:00	14:00	15:00	16:00	17:00
Prayers and Lunch Break	<b>Scientific Session 3 – ANCA Associated Vasculitis</b> Chair: Hadi Karimzadeh, Karim Mowla Hoveyzeh, Abdolrahman Rostamian <b>S3-1: Pathophysiology of ANCA Associated vasculitis:</b> Ali Mohammad Fatemi <b>S3-2: Case challenges in vasculitis:</b> Maryam Mousavi <b>S3-3: Management of ANCA Associated Vasculitis:</b> Mansour Salehi <b>Questions and Answers</b> Coordinator: Dr. Hadi Karimzadeh	<b>Workshop 1 –Capillaroscopy</b> Dr. Saeedeh Shenavandeh	Ali Mohammad Fatemi, Maryam Mousavi, Mansour Salehi	
Prayers and Lunch Break	<b>Scientific Session 5: Anti-phospholipid Syndrome</b> Chair: Mahmoud Akbarian, Mohammadali Nazarinia, Aliasghar Ebrahimi <b>S5-1: Epidemiology and pathogenesis:</b> Elham Aflaki <b>S5-2: APS and pregnancy:</b> Zahra Habibagahi <b>S5-3: Catastrophic Antiphospholipid syndrome:</b> Mohammadali Nazarinia <b>S5-4: New treatments in Antiphospholipid syndrome:</b> Saeedeh Shenavandeh	<b>Workshop2: Bone Densitometry</b> Alireza Rajaei	<b>Patients Education Session – Scleroderma</b> Chair: Farhad Gharibdoost, Hoda kavosi <b>E1.1: Nutrition in scleroderma:</b> Ali akbar Mohammadi <b>E1.2: Exercise in scleroderma:</b> Mohammadhossein Pourgharib <b>E1.3: Diagnosis and Treatment of scleroderma:</b> Hoda Kavosi  <b>Questions and Answers</b> Ali akbar Mohammadi, Mohammadhossein Pourgharib, Hoda Kavosi	
		Exhibition hall (First floor)		
Prayers and Lunch Break	<b>Questions and Answers</b> Coordinator: Mahmoud Akbarian, Taraneh Tarakemeh, Mohammadali Nazarinia, Elham Aflaki, Zahra Habibagahi, Saeedeh Shenavandeh			
	Ziafat Hall (Underground Floor)			

## SCIENTIFIC PROGRAM

### *Wednesday, October 16*

07:30-08:30 **Registration**

08:30-09:00 **Opening Ceremony**

09:00-10:30 **Scientific Session 1 – Osteoporosis**

**Chair:** Ali Bidari, Fatemeh Shirani, Nahid Kianmehr

**Ali Bidari**

*Professor of Rheumatology, Iran University of Medical Sciences, Tehran, Iran.*

**Fatemeh Shirani**

*Assistant Professor, Iums (iran university of medical science), Internal medicine division of rheumatology, Tehran, Iran*

**Nahid Kianmehr**

*Associate professor of Rheumatology, iran university of medical science, Tehran, Iran*

**S1-1 Glucocorticoid induced Osteoporosis (GIOP):**

**Mozhdeh Zabihyeganeh**

*Associate Professor of Rheumatology, Department of internal medicine, Bone and Joint Reconstruction Research Center, Shafa Orthopedic Hospital, Iran University of Medical Sciences, Tehran, Iran*

**S1-2 Treatment and Follow up of patient with Osteoporosis**

**Anousheh Haghghi**

*Associate Professor of Rheumatology, Iums (iran university of medical science), Tehran, Iran.*

**S1-3 Diagnosis, Evaluation and treatment of patient with vertebral fractures in Osteoporosis**

**Baharak Tasorian**

*Assistant professor of Rheumatology. Arak university of medical Sciences, Arak, Iran.*

**Coordinator:** Nahid Kianmehr

**Questions and Answers**

**Fatemeh Shirani, Mozhdeh Zabihyeganeh, Anousheh Haghghi, Baharak Tasorian**

**Simin Almasi:** *Assistant Professor of Rheumatology, iran University of Medical Sciences, Tehran, Iran.*

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

11:00-13:00 **Scientific Session 2 – Inflammatory Myopathies**

**Chair:** Abdolhadi Nadji, Mohammad Moslemizadeh, Mohammad Mahdi Emam

**Abdolhadi Nadji**

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

**Mohammad Moslemizadeh**

*Assistant Professor of Rheumatology, Shahid Beheshti University of Medical Sciences, Tehran, Iran.*

**Mohammad Mahdi Emam**

*Associate professor of Rheumatology Shahid beheshti University of Medical Sciences, Tehran, Iran.*

**S2-1 New classification and autoantibodies in myositis****Faraneh Farsad***Assistant Professor of Rheumatology, Shahid beheshti University of Medical Sciences, Tehran, Iran.***S2-2 Immune mediated necrotizing myopathies and myositis associated with malignancies****Arman Ahmadzadeh***Associate professor of Rheumatology, Rheumatology ward, Loghman hospital, Shahid beheshti university of medical sciences (SBMU)***S2-3 Progresses in Diagnosis and treatment of Inclusion Body Myositis****Reza Farrokh seresht***Assistant professor of Rheumatology, Hormozgan university of medical sciences, Hormozgan, Iran.***S2-4: Refractory Myositis****Mohammad Mahdi Emam****Coordinator:** Mohammad Mahdi Emam**Questions and Answers****Mohammad Moslemizadeh, Mohammad Mahdi Emam, Arman Ahmadzadeh, Reza Farrokh Seresht, Faraneh Farsad**13:00-14:00 **Prayers and Lunch Break**14:00-15:30 **Scientific Session 3-ANCA Associated Vasculitis****Chair:** Hadi Karimzadeh, Karim Mowla Hoveyzeh, Abdolrahman Rostamian**Hadi Karimzadeh***Professor of Rheumatology, Department of Rheumatology, School of Medicine, Isfahan University of Medical Sciences, Isfahan, Iran***Karim Mowla Hoveyzeh***Associate Professor medical Sciences Ahvaz Jundishapur university of medical sciences, Ahvaz,iran***Abdolrahman Rostamian***Associate Professor of Rheumatology, Tehran university of medical sciences, Tehran, Iran.***S3-1 Pathophysiology of ANCA Associated vasculitis****Alimohammad Fatemi***Associate Professor of Rheumatology, Isfahan University of Medical Sciences, Isfahan, Iran.***S3-2 Case challenges in vasculitis****Maryam Mousavi***Assistant Professor of Rheumatology, Department of Rheumatology, School of Medicine, Isfahan University of Medical Sciences, Isfahan, Iran***S3-3 Management of ANCA Associated Vasculitis****Mansour Salesi***Associate Professor of Rheumatology, Isfahan University of Medical Sciences, Isfahan, Iran***Coordinator:** Hadi Karimzadeh**Questions and Answers****Hadi Karimzadeh, Ali Mohammad Fatemi, Maryam Mousavi, Mansour Salesi**15:30-17:30 **Workshop 1 – Capillaroscopy****Saeedeh Shenavandeh***Associate Professor of Rheumatology, Department of Internal Medicine, Division of Rheumatology, Shiraz University of Medical Sciences, Shiraz, Iran.*

**Thursday, October 17****08:00-09:00 Main Lecture: Rheumatologic manifestations in patients with organ transplantation****Chair:** Freydoun Davatchi*Professor of Rheumatology, Rheumatology research center, Tehran University of medical sciences, Tehran, Iran.***Speaker:** Farhad Shahram*Professor of Rheumatology, Rheumatology research center, Tehran University of medical sciences, Tehran, Iran.***Questions and Answers****09:00-10:30 Scientific Session 4: Oral presentations****Chair:** Zahra Rezaeiyazdi, Mahdi Mahmoudi, Mohammad Bagher OWLIA**Zahra Rezaeiyazdi***Professor of Rheumatology, Mashhad University of Medical Science, Mashhad, Iran***Mahdi Mahmoudi***Associate Professor of Immunology, Rheumatology Research Center, Tehran University of Medical Sciences, Tehran, Iran***Mohammad Bagher OWLIA***Professor of Rheumatology, Shahid Sadoghi University of Medical Science, Yazd, Iran***S4-1 Symbiotic supplement addition effects on severity and activity of disease in patients with Rheumatoid Arthritis: A double-blind, randomized placebo-controlled clinical trial****Mansour Salesi***Associate Professor of Rheumatology, Isfahan university of medical sciences, internal medicine, Isfahan, Iran.***S4-2 Anti-Modified Citrullinated Vimentin Antibody; a Novel Biomarker to Predict Cardiac Systolic Function in Patients with Rheumatoid Arthritis****Maryam Masoumi***Assistant Professor of Rheumatology, Qom University of medical sciences, Shahid Beheshti Hospital, Internal Medicine Department, Qom, Iran.***S4-3 Relapsing periodic arthritis, Palindromic Rheumatism and MEFV gene-related variants alleles in children****Farhad Salehzadeh***Professor in Pediatric Rheumatology, Pediatric Department, Bouali Children`s Hospital, Ardabil University of Medical Sciences (ARUMS), Ardabil, Iran.***S4-4 The prevalence of Lupus Retinopathy and its relationship with disease activity in patients with Systemic Lupus Erythematosus****Hamidreza Bashiri***Assistant Professor of Rheumatology, Rheumatology Department, Shahid Sadoughi University of Medical Sciences, Yazd, Iran.***S4-5 Beneficial effects of N-acetylcysteine on Systemic Lupus Erythematosus disease activity and its associated complications****Mitra Abbasifard***Department of Internal Medicine, Ali-Ibn Abi Talib Hospital, Rafsanjan University of Medical Sciences, Rafsanjan, Iran***S4-6 Osteonecrosis In Behcet's Disease: A Large Case Series And Literature Review****Seyedeh Tahereh Faezi***Associate Professor of Rheumatology, Tehran University of Medical Sciences, Tehran, Iran.*

**S4-7 Knee osteoarthritis in southeast of Iran: A ILAR-WHO COPCORD study****Yas Shahbakhsh***Medical Intern, Iran University of medical sciences, Tehran, Tehran, Iran***S4-8 The effect of TRX Exercises vs. Aquatic Therapy on Self-Reported Knee Instability and Affected Factors in Women with Knee Osteoarthritis: A Clinical Controlled Randomized Trial****Farzaneh Gandomi***Department of Corrective Exercises and Sport Injuries, Faculty of Physical Education and Sport Sciences, Razi University, Kermanshah, Iran***S4-9 Evaluation of the effect of adjustment of bone mineral density with trabecular bone score (TBS) on the fracture risk assessment of kidney transplant recipients****Alireza Mirzaei***Bone and Joint Reconstruction Research Center, Shafa Orthopedic Hospital, Iran University of Medical Sciences, Tehran, IR Iran.*10:30-11:00 **Poster presentation and Coffee Break**11:00-13:00 **Annual Meeting of Iranian Rheumatology Association**14:00-15:30 **Scientific Session 5-Anti-phospholipid Syndrome****Chair:** Mahmoud Akbarian, Mohammadali Nazarinia, Aliasghar Ebrahimi**Mahmoud Akbarian***Professor of Rheumatology Rheumatology Research Center, Tehran University of Medical Sciences, Tehran, Iran.***Mohammadali Nazarinia***Internist-Rheumatologist, Professor of Rheumatology Shiraz University of medical sciences, Shiraz, Iran.***Aliasghar Ebrahimi***Internist Rheumatologist, Associated Professor Internal Medicine Department Rheumatology Ward Tabriz University of Medical Science, Tabriz, Iran.***S5-1 Epidemiology and pathogenesis****Elham Aflaki***Associate Professor of Rheumatology, Shiraz University of Medical Sciences, Shiraz, Iran.***S5-2 APS and pregnancy****Zahra Habibagahi***Associate Professor of Rheumatology, Shiraz University of Medical Sciences, Shiraz, Iran***S5-3 Catastrophic Antiphospholipid syndrome****Mohammadali Nazarinia***Internist-Rheumatologist, Professor of Rheumatology Shiraz University of medical sciences, Shiraz, Iran.***S5-4 New treatments in Antiphospholipid syndrome: Saeedeh Shenavandeh****Mohammad Hassan Jokar***Associated Professor of Rheumatology, Mashhad University of Medical Sciences, Mashhad, Iran.***Coordinator:** Mahmoud Akbarian**Questions and Answers****Mahmoud Akbarian, Mohammadali Nazarinia, Elham Aflaki, Zahra Habibagahi****Taraneh Tarakemeh:** *Assistant Professor of Rheumatology, Hormozgan Medical University, Hormozgan, Iran.*

**Saeedeh Shenavandeh:** *Associate Professor of Rheumatology, Department of Internal Medicine, Division of Rheumatology, Shiraz University of Medical Sciences, Shiraz, Iran.*

15:30-17:30 **Workshop2: Bone Densitometry**

**Alireza Rajaei**

*Associated Professor of Rheumatology, Ward Loghman hospital, Tehran, Iran*

15:30-17:30 **Patients Education Session – Scleroderma**

**Chair:** Farhad Gharibdoost, Hoda kavosi

**Farhad Gharibdoost**

*Professor of Rheumatology, Tehran University of Medical Sciences, Tehran, Iran.*

**Hoda Kavosi**

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

**E1.1: Nutrition in scleroderma:**

**Ali akbar Mohammadi**

*PHD, Nutritionist, Department of Nutrition, School of Public Health, Iran University of medical Siences, Tehran, Iran*

**E1.2: Exercise in scleroderma:**

**Mohammadhossein Pourgharib**

*Assistant Professor of Sports and Exercise, Tehran University of Medical Sciences, Tehran, Iran*

**E1.3: Diagnosis and Treatment of scleroderma:**

**Hoda Kavosi**

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

**Coordinator:** Farhad Gharibdoost

**Questions and Answers**

**Farhad Gharibdoost, Ali akbar Mohammadi, Mohammadhossein Pourgharib, Hoda Kavosi**

## ***Friday, October 18***

8:30-10:00 **Scientific Session 6-Auto Inflammatory Disorders**

**Chair:** Farhad Gharibdoost, Ahmadreza Jamshidi, Seyedeh Tahereh Faezi

**Farhad Gharibdoost**

*Professor of Rheumatology, Rheumatology Research Center, Tehran University of Medical Sciences, Tehran, Iran.*

**Ahmadreza Jamshidi**

*Professor of Rheumatology, Rheumatology Research Center, Tehran University of Medical Sciences, Tehran, Iran.*

**Seyedeh Tahereh Faezi**

*Associate Professor of Rheumatology, Rheumatology Research Center, Tehran University of Medical Sciences, Tehran, Iran.*

**S6-1 The role of Auto Inflammation in the pathogenesis of Rheumatic diseases**

**Shafieh Movasseghi**

*Associate Professor of Rheumatology, Department of Rheumatology, Imam Khomeini Hospital, Tehran University of Medical Science, Tehran, Iran*

**S6-2 Clinical approach and diagnosis of Auto Inflammation in Rheumatic diseases****Ahmad Salimzadeh***Associate Professor of Rheumatology, Tehran University of Medical Sciences, Tehran, Iran.***S6-3: Treatment of Auto Inflammation in Rheumatoid diseases****Maassoumeh Akhlaghi***Associated Professor of Rheumatology, Tehran University of Medical Sciences, Tehran, Iran.***Coordinator:** Farhad Gharibdoost**Questions and Answers****Farhad Gharibdoost, Shafieh Movasseghi, Ahmad Salimzadeh, Maassoumeh Akhlaghi**10:00-10:30 **Coffee Break and poster presentation**10:30-12:30 **Scientific Session 7-Osteoarthritis****Chair:** Zhaleh Shariati Sarabi, Mohammad Hassan Jokar, Alireza Sadeghi**Zhaleh Shariati Sarabi***Professor of Rheumatology, Rheumatology division, Internal Medicine Department, Mashhad School of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran.***Mohammad Hassan Jokar***Associated Professor of Rheumatology, Mashhad University of Medical Sciences, Mashhad, Iran.***Alireza Sadeghi***Associated Professor of Rheumatology, Zanjan University of Medical Sciences, Zanjan, Iran.***S7-1: Pathogenesis of osteoarthritis****Fazlollah Ayatollahi***Assistant Professor of Rheumatology, Zanjan University of Medical Sciences, Zanjan, Iran.***S7-2: Challenges of non-pharmacological treatment****Kamila Hashemzede***Assistant Professor of Rheumatology, Mashhad University of Medical Sciences, Mashhad, Iran***S7-3: Challenges of pharmacological treatment****Nafiseh Abdolahi***Associated Professor of Rheumatology, Golestan Rheumatology Research center, Golestan University of medical sciences, Gorgan, Iran.***S7-4: ACR treatment guidelines****Mandana Khodashahi***Assistant Professor of Rheumatology, Mashhad University of Medical Sciences, Mashhad, Iran***Coordinator:** Mohammad Hassan Jokar**Questions and Answers****Zhaleh Shariati Sarabi, Kamila Hashemzede, Nafiseh Abdolahi,****Mandana Khodashahi, Fazlollah Ayatollahi****Maryam Sahebari:** *Associate professor Rheumatology, Mashhad University of Medical Sciences, Mashhad, Iran***Zahra Mirfeizi:** *Associate professor of Rheumatology, Rheumatic Disease Research Center, Imam reza Hospital, School of Medecine, Mashhad university of medical sciences, Mashhad, Iran.*

## POSTER PRESENTATIONS

### Wednesday, October 16

#### **P1-1 A Rare Tumor of the Trapezoid Bone in a Patient with Chronic Wrist Pain**

Amir Reza Farhoud<sup>1</sup>, Mohammad Javad Dehghani Firoozabadi<sup>1</sup>, Mohammad Nejadhosseini<sup>1</sup>, Smj Mortazavi<sup>1</sup>, Arash Arfa<sup>1</sup>, Nahid Sadighi<sup>2</sup>, Mahmoud Farzan<sup>1</sup>

<sup>1</sup> Department of Orthopedic Surgery, Imam Khomeini Hospital Complex (IKHC), Tehran University of Medical Sciences (TUMS), Tehran, Iran

<sup>2</sup> Advanced Diagnostic and Interventional Radiology (ADIR), Tehran University of Medical Sciences (TUMS), Tehran, Iran

E-mail: mhdnejad@gmail.com

#### **P1-2 The First Case of Multifocal Osteonecrosis in Behcet's Disease**

Seyedeh Tahereh Faezi<sup>1</sup>, Farhad Shahram<sup>1</sup>, Masoumeh Akhlaghi<sup>1</sup>, Mohammad Nejadhosseini<sup>2</sup>, Nahid Sadighi<sup>3</sup>, Masoumeh Banihashemian<sup>4</sup>, Pedram Paragomi<sup>5</sup>, Fereydoun Davatchi<sup>1</sup>

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

<sup>2</sup> Department of Orthopedic Surgery, Imam University Hospital, Tehran University of Medical Sciences, Tehran, Iran

<sup>3</sup> Advanced Diagnostic and Interventional Radiology, Tehran University of Medical Sciences, Tehran, Iran

<sup>4</sup> Department of Radiology, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran

<sup>5</sup> Department of Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA, USA

E-mail: mhdnejad@gmail.com

#### **P1-3 Whether Behcet's Patients with Large Vessel Involvement has Concurrent Small Vessel Involvement? A Case Control Study**

Sara Vossoughian<sup>1</sup>, Seyedeh Tahereh Faezi<sup>1</sup>, Hoda Kavosi<sup>1</sup>, Mostafa Qorbani<sup>2</sup>, Farhad Shahram<sup>1</sup>, Fereydoun Davatchi<sup>1</sup>

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

<sup>2</sup> Non-Communicable Disease Research Center, Alborz University of Medical Sciences, Karaj, Iran

E-mail: s.t\_faezi@sina.tums.ac.ir

#### **P1-4 Scleromyxedema and Hyperphosphatemia: Causal Relationship or Coincidence?**

Shokoufeh Mousavi<sup>1</sup>, Maryam Masoumi<sup>1\*2</sup>, Saeed Shakiba<sup>3</sup>

<sup>1</sup> Clinical Research Development Center, Shahid Beheshti Hospital, Qom University of Medical Sciences, Qom, Iran.

<sup>2</sup> Rheumatology Research Center, TUMS. Tehran. Iran

<sup>3</sup> School of Medicine, Tehran University of Medical Science

E-mail: m.masoumiy@gmail.com

#### **P1-5 A Case of Antiphospholipid Syndrome Following Gastric Signet Ring Cell Adenocarcinoma**

Majid Ehsani<sup>1</sup>, Mohammad Shayestehpour<sup>1,2</sup>, Davod Dadkhah<sup>1</sup>, Batool Zamani<sup>1\*</sup>

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#### **P1-6 Investigating Diagnostic Value of Procalcitonin Serum Level in Diagnosis of Etiology of Fever with Unknown Origin**

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**P1-7 An Evaluation on CD18 Expression in Animal Model by Staphylococcal Superantigene C**

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**P1-8 Relationship Between Body Mass Index and Bone Mineral Density in Mashhad, Iran; a Cross-sectional Study**

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**P1-9 Measurement of Biochemistry, Hematology and Serology Tests in Rat Model of Collagen-Induced Rheumatoid Arthritis**

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**P1-10 Effect of Sesamin Supplementation on the Blood Pressure Status Rheumatoid Arthritis Women**

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**P1-11 Study of the Effects of Sesamin Supplementation on the Proteolysis Enzymes Status in Women with Rheumatoid Arthritis**

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**P1-12 The Effects of Sesamin Supplementation on the Severity of Pain in Women with Rheumatoid Arthritis**Bijan Helli<sup>1\*</sup>, Leila Sheikhi<sup>2</sup><sup>1</sup> Assistant Professor, Research Committee, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran<sup>2</sup> Msc nutrition student, Research Committee, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

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**P1-13 Effects of Ginseng Supplementation on Selected Markers of Inflammation: A Systematic Review and Meta-analysis**Hamed Mohammadi<sup>1</sup>, Ali Nadi<sup>1</sup>, Armin Adibi<sup>1</sup>, Ehsan Ghaedi<sup>2</sup><sup>1</sup> Student Research Committee, Department of Clinical Nutrition, School of Nutrition and Food Science, Isfahan University of Medical Sciences, Isfahan, Iran.<sup>2</sup> Students' Scientific Research Center (SSRC), Tehran University of Medical Sciences (TUMS), Tehran, Iran

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**P1-14 Osteoporosis in Postmenopausal Women with Symptomatic Knee Osteoarthritis Versus Healthy Controls: A Case-Control Study**Mansour Babaei<sup>1,2</sup>, Komeil Noorozi<sup>3</sup>, Behzad Heidari<sup>1,2\*</sup><sup>1</sup> Mobility Impairment Research Center, Health Research Institute, Babol University of Medical Sciences, Babol, I.R.Iran<sup>2</sup> Clinical Research Development Unite of Rouhani Hospital, Babol University of Medical Sciences, Babol, I.R.Iran<sup>3</sup> Student Committee Research, Babol University of Medical Sciences, Babol, Iran.

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**P1-15 Relationship Between Bone Mineral Density in Patients with Rheumatoid Arthritis Referred to Imam Khomeini Hospital in Ardabil**Morteza Hakimian<sup>1</sup>, Ramin Nouri<sup>2</sup>, Razieh Azad kasb<sup>3</sup>, Saba SHirmohamadi<sup>4</sup><sup>1</sup> Sasan Talaneh, PhD Student of Medical Genetics, Tehran University of Medical Sciences, Iran<sup>2</sup> Ali Sadeghianifar, General Practitioner, Urmia University of Medical Sciences, Urmia City Health Center, Iran<sup>3</sup> Razieh Azad kasb, Nursing Expert, University of Medical Sciences, School of Nursing, Urmia, Iran<sup>4</sup> Young Researchers and Elite Club, orumieh Branch, Islamic Azad University, orumieh, Iran

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**P1-16 The Prevalence of Aphthous Stomatitis and Behçet's Disease in Health Care Providers of Tabriz University of Medical Sciences**

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**P1-17 Elevated IL-38 Serum Levels in Newly Diagnosed Patients with Systemic Sclerosis**Maryam Zarrabi<sup>1</sup>, Nasser Gholijani<sup>1</sup>, Mohammad Ali Nazarinia<sup>2</sup>, Zahra Amirghofran<sup>1,3</sup><sup>1</sup> Autoimmune Diseases Research Center, Shiraz University of Medical Sciences, Shiraz, Iran<sup>2</sup> Geriatric Research Center, Shiraz University of Medical Sciences, Shiraz, Iran<sup>3</sup> Immunology Department, Shiraz University of Medical Sciences, Shiraz, Iran

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**P1-18 Comparing the Effects of Oleoresin of Pistacia atlantica (Turpentine) Tree and Diclofenac Gel in**

**Improving the Knee Osteoarthritis**

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*Department of Rheumatology, Tehran Medical Sciences Branch, Islamic Azad University, Tehran, Iran**E-mail: shahlamarmin@yahoo.com***P1-19 Nailfold Videocapillaroscopy Changes in Takayasu Arteritis and Their Association with Disease Activity and Subclavian Artery Involvement**Ali Javinani<sup>1</sup>, Mehran Pournazari<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**E-mail: h-kavosi@sina.tums.ac.ir,***Thursday, October 17****P2-1 The Relation of Interleukin-38 Serum Level to Eye Involvement in Patients with Behcet's Disease**Maryam Zarrabi<sup>1</sup>, Nasser Gholijani<sup>1</sup>, Elham Aflaki<sup>1,2</sup>, Saeedeh Shenavandeh<sup>2</sup>, Zahra Amirghofran<sup>1,3</sup><sup>1</sup> *Autoimmune Diseases Research Center, Shiraz University of Medical Sciences, Shiraz, Iran*<sup>2</sup> *Division of Rheumatology, Shiraz University of Medical Sciences, Shiraz, Iran*<sup>3</sup> *Immunology Department, Shiraz University of Medical Sciences, Shiraz, Iran**E-mail: maryam\_zarrabi2@yahoo.com***P2-3 Association of Carotid Atherosclerosis and Bone Mineral Density in Postmenopausal Women**Sogol Shahbakhsh<sup>1</sup>, Zahra Zakeri<sup>2</sup>, Zahra Dehghani<sup>3</sup>, Yas Shahbakhsh<sup>4\*</sup><sup>1</sup> *General Practitioner, Faculty of Medicine, Iran University of medical sciences, Tehran, Tehran, Iran*<sup>2</sup> *Professor of Rheumatology, Department of Rheumatology, Shahid Beheshti University of medical sciences, Tehran, Tehran, Iran*<sup>3</sup> *Department of Radiology, Shahid Beheshti University of Medical Science, Tehran, Tehran, Iran*<sup>4\*</sup> *Medical Intern, Faculty of Medicine, Iran University of medical sciences, Tehran, Tehran, Iran**E-mail: yas.shahbakhsh@gmail.com***P2-3 Comparison of the Effect of Cognitive Behavioral Therapy with Duloxetine on the Clinical and Laboratory Indices of Fibromyalgia Patients: an Open Label Clinical Trial**Alireza Mirzaei<sup>1</sup>, Azade Amini Kadijani<sup>2</sup>, Sedigheh Vafae Afshar<sup>1</sup>, Mozhdeh Zabihyeganeh<sup>1\*</sup><sup>1</sup> *Bone and Joint Reconstruction Research Center, Shafa Orthopedic Hospital, Iran University of Medical Sciences, Tehran, Iran*<sup>2</sup> *Basic and Molecular Epidemiology of Gastrointestinal Disorders Research Center, Research Institute for Gastroenterology and Liver Diseases, Shahid Beheshti University of Medical Sciences, Tehran, Iran**E-mail: zabihyeganeh.m@iums.ac.ir***P2-4 Evaluation of Platelet Count and Function in Patients with Rheumatoid Arthritis and Its Relation with Severity of Disease**Zeinab Saremi<sup>1</sup>, Mandana Khodashahi<sup>2</sup>, Nayyereh saadati<sup>2</sup>, Zahra Rezaieyazdi<sup>2</sup>, Maryam Sahebari<sup>2</sup><sup>1</sup> *Internal medicine department, valiasr hospital. Birjand University of Medical Sciences, Birjand, Iran*<sup>2</sup> *Rheumatic Diseases Research Center, Mashhad University of Medical Sciences, Mashhad, Iran**E-mail: z13612002@yahoo.com***P2-5 Relationship Between Chondrogenic Knee Cholestasis in Rheumatoid Arthritis Patients in Ardabil Province Population**Ramin Nouri<sup>1</sup>, Morteza Hakimian<sup>2</sup>, Razieh Azad kasb<sup>3</sup>, Saba Shirmohamadi<sup>4</sup><sup>1</sup> *Sasan Talaneh, PhD Student of Medical Genetics, Tehran University of Medical Sciences, Iran*

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**P2-6 Effect of Nigella Sativa L. on Reduction of Pain in Patients with Knee Osteoarthritis**

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**P2-7 The Relationship Between Osteoporosis and Osteopenia in Women with Rheumatoid Arthritis in Urmia**

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**P2-8 The Relationship Between Superoxide Dismutase Activity and Erythrocyte Glutathione Peroxidase Activity in Patients with Rheumatoid Arthritis**

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**P2-9 Relationship Between Catalase Vitamins A and K in the Blood of People with Rheumatoid Arthritis in a Population of West Azerbaijan Province**

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**P2-10 Evaluation of Quality of Life and Self-care in Patients with Rheumatoid Arthritis Referring to Ayatollah Golpayegani Hospital in Qom 2016**

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**P2-11 Evaluation of Frequency of Types of Rheumatologic Manifestations and Their Relationship with Blood Glucose Control in Patients with Type II Diabetes**

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**P2-12 Multiple Organ Involvements in a Case of IgG4 Related Disease**

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**P2-13 Multiple Myeloma in a Patient with Sarcoidosis and Heavy Proteinuria: a Case Report**

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**P2-14 Study of Quality of Life in Rheumatoid Arthritis Patients Referred in Educational Hospitals in Urmia**

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**P2-15 The Effect of Self-Care Education on Rheumatoid Arthritis Patients by Nurses Working in Public Hospitals in Tehran**

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**P2-16 Jugular Vein Thrombosis after Dental Extraction from Lemierre's Disease to Behçet Disease**

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**P2-17 Using a Biodegradable Scaffold Confirmed the Possible Physiological Role of COX in Articular Cartilage**

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# ORAL PRESENTATIONS



S1-1

## Symbiotic Supplement Addition Effects on Severity and Activity of Disease in Patients with Rheumatoid Arthritis: A Double-Blind, Randomized, Placebo-Controlled Clinical Trial

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**Aim:** The aim of our study was to evaluate anti-inflammatory effects of supplemental symbiotic as an adjuvant therapy in RA patients.

**Materials and Methods:** Pts were randomly divided in to two groups. Both groups received MTX AND prednisolone. Additionally, first group received oral symbiotic supplement 500 mg twice daily, but the second group received placebo as control, for 3 months. Pts age and gender were included. CBC, ESR, ALT, Cr were obtained and ultimately their DAS28 was calculated; all once in the baseline and then 3 months after the intervention had been Started.

**Results:** Overall, 3 months after initiation of therapy, there was a better response in the group Receiving symbiotic (N<sub>1</sub>=88) compared with the group receiving placebo (N<sub>2</sub>=98). 2 Pts in the former group had achieved remission compared with none in the latter, one with high and another with moderate disease activity. The supplemental symbiotic addition to the routine pharmacotherapy in men seems to be more effective in reducing disease activity and physical disability, achieving remission, and avoiding the addition of more advanced treatments, but not in women. Adverse events were similar in both groups.

**Conclusion:** Symbiotic does not decrease disease activity in women of all age groups with RA but it does decrease disease activity in men and can be used for men with RA as additive treatment.

**Keywords:** DMARDs- Synbiotic- Prebiotic- Probiotic- Rheumatoid Arthritis

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S1-2

## Anti-Modified Citrullinated Vimentin Antibody; a Novel Biomarker to Predict Cardiac Systolic Function in Patients with Rheumatoid Arthritis

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**Objectives:** Studies demonstrated that seropositive patients with rheumatoid arthritis (RA) are more susceptible to cardiovascular diseases (CVDs). In this study, we aimed to determine the association of autoantibodies with echocardiographic parameters of systolic and diastolic dysfunction in these patients.

**Methods:** In this cross-sectional study, we evaluated consecutive patients with RA referring to our clinic from October 2017 to August 2018. After exclusion of patients with concomitant CVD, all patients underwent transthoracic echocardiography and measurement of plasma autoantibodies. Moreover, possible confounders including medications, CVD risk factors, Framingham risk score, disease activity score-28, duration of disease, simple disease activity index, and functional status were assessed.

**Results:** We studied 135 patients with RA with the mean age of 52.3 years including 111 (82.2%) females. We had missed data up to 8.9% in some characteristics. E velocity was inversely correlated with rheumatoid factor (P=0.009). Furthermore, plasma levels of anti-citrullinated protein and anti-modified citrullinated vimentin (anti-MCV) antibodies were negatively associated with left ventricular ejection fraction (LVEF) (P=0.019 and P<0.001, respectively). After adjustment for possible confounders, the linear regression model demonstrated anti-MCV and age as significant predictors of LVEF. The receiver operating characteristic curve showed that anti-MCV antibody titer  $\geq 547.5$  (IU/mL) identifies reduced LVEF (<50%) with a sensitivity of 85.7% and specificity of 93% (C-statistic=0.843).

**Conclusion:** Our findings showed significant inverse correlation of anti-MCV antibody titer with LVEF. These results may show promises for application of anti-MCV in screening and early detection of cardiac systolic dysfunction. Future prospective studies will determine its role.

**Keywords:** Autoantibodies; Anti-Citrullinated Protein Antibodies; Anti-Modified Citrullinated Vimentin; Anti-Mutated Citrullinated Vimentin; Rheumatoid Factor; Arthritis, Rheumatoid; Ejection Fraction; Systolic Dysfunction; Stroke Volume

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S1-3

## Relapsing Periodic Arthritis, Palindromic Rheumatism and *MEFV* Gene-related Variants Alleles in Children

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**Aim:** Idiopathic relapsing periodic arthritis (IRPA) is a general term used for a group of diseases with recurring and periodic nature. The aim of this study is to evaluation of the possible relationship between *MEFV* gene mutations in intermittent arthritis of children which has recurring and periodic nature.

**Methods:** In this cross-sectional study we reviewed medical records of all patients with recurrent and periodic arthritis referred to pediatric rheumatology clinic from 2003 to 2019.

**Results:** Among 195 recorded files, 11 patients were identified with idiopathic recurrent and periodic feature. 3 patients suffering from recurrent transient synovitis hip (RSH) and 8 patients were fully compatible with the Pasero and Barbieri modified criteria of palindromic rheumatism (PR). Their mean age at diagnosis was 6.5 and 4.6 years and the average follow-up was 2.6 and 6.6 years in PR and RSH patients, respectively. The most frequently involved joints were knees and ankles in PR patients. The mean duration of attacks was 3.3days in RSH patients and with various courses in PR. The median number of attacks was 4.75 in PR and 3 in RSH patients per year. In PR group 7 patients showed no mutations and all patients of RSH had these mutations; V726A, R761H, A744S as in heterozygote pattern.

**Conclusion:** In our opinion, an idiopathic relapsing periodic arthritis in children with exclusively hip involvement is a *MEFV* gene related arthropathy; whereas with various joint attacks it could be considered as childhood PR.

**Keywords:** *MEFV* gene, Palindromic Rheumatism, Recurrent Synovitis of Hip, FMF-related arthritis

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S1-4

## The prevalence of Lupus Retinopathy and Its Relationship with Disease Activity in Patients with Systemic Lupus Erythematosus

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**Aim:** Systemic lupus erythematosus is an autoimmune disease that can involve several different organs simultaneously. Ocular problems, especially retinopathy, can be a sign of severe lupus activity. The aim of this study was to investigate the prevalence of Lupus retinopathy and the association of these problems with the rate of the activity of this disease.

**Methods:** In this cross-sectional study, 114 patients with lupus were included based on the ACR criteria and retinal examination was performed in all patients. In addition to the demographic factors, CBC, ESR, CRP, urinalysis, creatinine, proteinuria, anti-dsDNA, anti-cardiolipin, C3, C4, liver enzymes, organs involvement and the rate of disease activity based on SLEDAI were assessed. Finally, findings of the patients with retinal involvement and without retinal involvement were compared.

**Results:** The prevalence of retinopathy was observed in 16% of patients. There was no difference between age and sex in two groups. SLEDAI ( $P < 0.001$ ), anti-dsDNA ( $P = 0.050$ ), ANA ( $P = 0.012$ ), urine cast ( $P = 0.006$ ) and Pericardial effusion ( $P = 0.001$ ) in patients with retinopathy were significantly higher than patients without retinal involvement. Also, hemoglobin levels ( $p = 0.012$ ), C3 ( $P = 0.001$ ) and C4 ( $P = 0.036$ ) levels in patients with retinopathy were significantly lower than other group.

**Conclusion:** Lupus retinopathy are more commonly observed in patients with more active disease based on SLEDAI and also active serologic parameters such as elevated anti-dsDNA level, reduced C3 and C4 and kidney involvement and pericardial effusion.

**Keywords:** Lupus Retinopathy, Systemic Lupus Erythematosus (SLE)

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S1-5

## Beneficial Effects of N-acetylcysteine on Systemic Lupus Erythematosus Disease Activity and its Associated Complications

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**Aim:** N-acetylcysteine has been broadly utilized as an antioxidant agent in vivo and in vitro. The aim of this study was to assess the effect of NAC on the systemic lupus erythematosus disease activity and other related indexes in Iranian patients with SLE.

**Methods:** Eighty patients in two groups (40 patients under treatment by NAC and 40 patients as control) were enrolled. Related laboratory examinations including CH50, proteinuria, C4, C3, ANA titer, and anti dsDNA were measured by appropriate methods. Due to the measure of the SLE disease activity before and after treatment BILAG and SLEDAI indexes were used.

**Results:** Findings of this study showed that the SLE disease activity has been decreased after 3 months of NAC therapy. We observed that measuring SLE disease activity there was a significant decrease after treatment in the NAC group (based on BILAG score;  $P=0.023$  and based on SLEDAI score;  $P=0.015$ ) compare with control group. In addition, neural, musculoskeletal, renal, vascular, cutaneomucosal, and general symptoms significantly improved in the NAC group when compared with control group.

**Conclusions:** It appears that administration of 1800 mg NAC to SLE patients can decrease the SLE disease activity and its complications. In addition, mentioned dose of NAC can improve the clinical outcome of SLE in these patients. However, to achieve verifiable results in the treatment of SLE, further studies with larger sample size and different doses of NAC at different locations among other specific groups of patients suffering from SLE and its related disorders are needed.

**Keywords:** systemic lupus erythematosus, N-acetylcysteine, antioxidant.

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S1-6

## Osteonecrosis in Behcet's Disease: A Large Case Series and Literature Review

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**Aim:** Despite the presence of some risk factors of osteonecrosis (ON) in BD patients, there is just a few case reports in the literature. In this study we aim to present a subgroup of BD patients who developed ON.

**Methods:** In a cohort of BD patients registered between 1980 to 2017, those with ON were detected. Diagnosis of ON was based on MRI. Demographic and different clinical characteristics of the disease were recorded in this group of patients.

**Results:** In a cohort of 7500 BD patients, 18 cases had ON (prevalence of 0.0024%). Sixteen patients (88.9%) were male. Mean age of ON subgroup at the time of first manifestation was 24.1 years (95% CI: 21.8-26.4). All patients received moderate to high dose steroid (0.5-1 mg/kg prednisolone) and one patient received pulse of methyl prednisolone (1000 mg/day for 3 days). The mean time interval between starting steroid and ON occurrence was 28.5 months (95% CI: 26.2-30.8). Hip joint was involved in all patients, 13 patients (72%) had bilateral hip involvement, and one patient had multifocal ON (both hips, both knees, both shoulders and right ankle). The mean delay time for the diagnosis of avascular necrosis after clinical symptom (arthralgia) was 7.32 months (95% CI: 5.01-9.63). Among ON patients, vascular lesions were comparatively more common (33.4%) than general BD population. Fourteen cases (77.8%) had ocular lesions.

**Conclusion:** ON is not common in BD patients. Receiving steroids and vascular involvement were the most two common risk factor in these patients.

**Keywords:** Behcet's disease, Osteonecrosis, Bone biology

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S1-7

## Knee osteoarthritis in southeast of Iran: A ILAR-WHO COPCORD study

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A ILAR-WHO COPCORD Study

**Aim:** Osteoarthritis is the most prevalent rheumatic disease in all over the world. Given the improving public health and life expectancy, the incidence of osteoarthritis is increasing now. Knowledge of the disease epidemiology, particularly modifiable risk factors, is crucial to reduce the disease burden. The prevalence of knee osteoarthritis and its risk factors in Zahedan, Southeast of Iran had not been well-documented before.

**Methods:** A sample size of 2100 people from 20 different regions of Zahedan were included in the survey. In accordance with American College of Rheumatology criteria, 357 people with marked knee osteoarthritis were eligible for the study.

**Results:** Significant correlation between age and prevalence of knee osteoarthritis was observed. ( $p < 0.1$ ) The prevalence of knee osteoarthritis was 5.4 % in the 15-29 years-old age-group while 64 % among people with the ages of 70 and more (Odds Ratio 30.85). The prevalence of knee osteoarthritis was significantly higher among women (20.9 % vs 12.1;  $p < 0.1$ ). Knee osteoarthritis was prevalent among housekeepers (27%) and farmers (20%). However, the prevalence was variable according to socio-economic states such as 5.4% for university students and 27 % for unemployed people. No significant correlation between BMI and knee osteoarthritis was found. There was no association between cigarette smoking and knee osteoarthritis. Significant correlation between history of knee trauma and knee osteoarthritis was observed.

**Conclusion:** The result of the study revealed that the role of risk factors such as obesity can be variable in different geographic areas.

**Keywords:** Knee, Osteoarthritis, COPCORD, Risk Factor

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S1-8

## The Effect of TRX Exercises vs. Aquatic Therapy on Self-Reported Knee Instability and Affected Factors in Women with Knee Osteoarthritis: A Clinical Controlled Randomized Trial

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**Aims:** Knee Instability (KI) is described as a sense of the knee buckling, shifting, or giving way during the weight bearing activities. High prevalence (65%) has been reported for KI amongst the patients with knee osteoarthritis (KOA). So, we studied the effect of two interventions on self-reported KI and affected factors.

**Methods:** In this single blind, randomized, and controlled trial, 36 patients were selected for participating. patients were allocated in three groups (aquatic therapy (n=12), TRX exercises (n=12) and control (n=12)) by random. 8-week TRX and aquatic exercises were carried out by experimental groups. Before and after interventions pain, Berg Balance Scale (BBS), WOMAC, self-reported KI, quadriceps strength and knee range of motion (ROM) were measured. The SPSS software (version 22), and One-way ANOVA was used to data analysis.

**Results:** There was no significant difference between aquatic therapy and TRX ( $P>0.05$ ) for KI, BBS, WOMAC, and pain. But there was significant difference between the aquatic therapy and the control for KI ( $P=0.0001$ ), BBS ( $P=0.0001$ ), WOMAC<sub>Stiffness</sub> ( $P=0.0001$ ), and pain ( $P=0.006$ ). Also, there was significant difference between the TRX and the control for KI ( $P=0.0001$ ), BBS ( $P=0.0001$ ), and pain ( $P=0.003$ ) except WOMAC<sub>Stiffness</sub> ( $P=0.07$ ). Other results showed that the knee ROM ( $P=0.031$ ) and the quadriceps strength ( $P=0.001$ ) were improved by TRX exercises.

**Conclusion:** We concluded that TRX and aquatic interventions had a similar effect on the patients' KI, pain, function, and also its balance variables, but TRX exercises had more effect on quadriceps strength, knee stiffness, and knee ROM improvement.

**Keywords:** Self-reported knee instability, Osteoarthritis, TRX, Aquatic Therapy.

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S1-9

## Evaluation of the Effect of Adjustment of Bone Mineral Density with Trabecular Bone Score (TBS) on the Fracture Risk Assessment of Kidney Transplant Recipients

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**Background:** While in kidney transplant recipients the bone quality may also be adversely affected, bone mineral density (BMD) only measures bone mass that does not necessarily reflect bone quality. Trabecular bone score (TBS) is a novel, noninvasive measure of bone quality. In this study we evaluated how TBS adjustment affects the estimated risk of osteoporotic fracture.

**Patients and Methods:** Seventy kidney transplant recipients were included in this cross-sectional study. After the evaluation of the BMD and TBS of the patients, risk of major osteoporotic fracture (MOF) and hip fracture (HF) was assessed one with and once without TBS adjustment, using fracture risk assessment tool (FRAX). The proportion of patients who needed a therapeutic intervention was compared before and after TBS adjustment.

**Results:** The mean time past the transplantation date was  $5.1 \pm 5.7$  years. A significant association was found between the BMD and TBS status of the patients ( $p < 0.001$ ). A significant positive correlation was found between the MOF of the patients before and after adjustment for TBS ( $r = 0.821$ ,  $p < 0.001$ ). A significant positive correlation was also found between the HF of the patients before and after adjustment for TBS ( $r = 0.904$ ,  $p < 0.001$ ). The proportion of patients needing a therapeutic intervention significantly increased from 17.1% to 25.7% after TBS adjustment of FRAX ( $p = 0.014$ ).

**Conclusion:** The results of this study reveal that adjustment of FRAX with TBS may alter the treatment algorithm in kidney transplant recipients. Thus, TBS can be suggested as a complementary measure for evaluation of bone quality in these patients.

**Keywords:** Bone mineral density, trabecular bone score, fracture risk assessment, major osteoporotic fracture, and hip fracture.

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# POSTER PRESENTATIONS

P1-1

## A Rare Tumor of the Trapezoid Bone in a Patient with Chronic Wrist Pain

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**Aim:** Osteoid osteoma is a kind of benign tumor that rarely occurs in carpal bones. Occurrence of osteoid osteoma in trapezoid is extremely rare. We present a patient with osteoid osteoma of the trapezoid as 7<sup>th</sup> reported cases around the world.

**Case:** A 25 year-old man was referred to our clinic with a 12-month history of pain of his left wrist. He mentioned that he has wrist pain during manual activity, and the pain was increasing over time. He didn't have history of trauma. He was treated with non steroid anti inflammatory drugs (NSAIDs) before being referred to our clinic; however it did not work. Examination showed tenderness over the dorsoradial side of the left wrist. Conventional radiographs of the wrist was normal. Computed tomography (CT) demonstrated a halo radiolucent osteoid tissue surrounded by a sclerotic tissue in left trapezoid. Magnetic resonance imaging (MRI) showed a focal hypointense lesion (nidus) in the trapezoid with 10 mm diameter. A focal increased uptake of 99mTC in his Trapezoid, was shown by bone scintigraphy. According to the clinical and imaging findings, we considered excisional biopsy with the diagnosis of osteoid osteoma of trapezoid bone. Surgery was performed through a dorsal incision. We performed en-block excision. Histopathological findings confirmed the diagnosis of osteoid osteoma. The patient got pain free on postoperative day 3.

**Conclusion:** Carpal bones tumor such as osteoid osteoma should be considered in differential diagnosis of patients with chronic wrist pain.

**Keywords:** Osteoid osteoma, trapezoid, carpal tumor

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**P1-2****The First Case of Multifocal Osteonecrosis in Behcet's Disease**

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**Aim:** The aim of this article is to present a case of BD with multifocal osteonecrosis as a first case in the world.

**Case:** A 26-years-old woman with decreased visual acuity for 2 weeks in her both eyes. Oral aphthosis was also an accompanying complaint which was started 5 months before eye involvement. Ophthalmologic examination disclosed panuveitis and retinal vasculitis on both eyes. Pathergy test was negative. She was diagnosed to have Behcet's disease and oral treatment of prednisolone 0.5 mg/kg/day together with Azathioprine 2 mg/kg/day and IV cyclophosphamide 0.75 g/m<sup>2</sup> was administered for her. Prednisolone was tapered to 15 mg/day after 3 months. Because of unresponsive eye involvement to traditional immunosuppressive therapy, Infliximab 5mg/kg was started for her and IV CYC was discontinued. 4 months after initial therapy she complained of her right shoulder pain. Regarding to shoulder pain, a MRI showed osteonecrosis of right shoulder. After diagnosis of osteonecrosis, prednisolone was discontinued by herself. 3 months later she complained of both knees, both hips and right ankle pain. According to previous diagnosis of osteonecrosis of her right shoulder, MRI was done for all involved joints, which revealed osteonecrosis of all of them. After diagnosis of multifocal osteonecrosis, the following tests was done that all results were normal: anticardiolipin antibody (IgG, IgM), Lupus anticoagulant, antiB2GP1 (IgG, IgM), coagulation tests, Lipid profiles.

**Conclusion:** Joint pain without the evidence of arthritis must alert the clinician related with the risk of bone infarctions; however, it rarely occurs in BD patients.

**Keywords:** Behcet's disease, Osteonecrosis.

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P1-3

## Whether Behcet's Patients with Large Vessel Involvement has Concurrent Small Vessel Involvement? A Case Control Study

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**Aim:** Behcet's disease (BD) classified among vasculitis of vessels with variable size. Concurrence of small and large vessel involvement in BD patients is undetermined. The aim of this study was to evaluate small vessel involvement in BD patients with large vessel involvement.

**Methods:** 35 BD patients with large vessel involvement (cases) and 35 BD patients without large vessel involvement (controls) were included. For evaluation of small vessel involvement nail fold Capillaroscopy was done for all of them.

**Results:** Among 70 BD patients, 69 patients had abnormal Capillaroscopic findings. The most abnormality was tortuosity (87.1%) followed by avascular areas (51.4%) and decreased density of capillaries (44.2%). Decreased capillary density, the number of avascular area and tortuosity were more common in cases but it was not statistically significant. In the cases group, the number of avascular area was associated with superficial phlebitis ( $p=0.044$ ) and deep vein thrombosis ( $p=0.022$ ). Male gender was associated with enlarged capillary ( $p=0.043$ ). There was a significant association between micro bleeding and the history of erythema nodosum ( $p=0.015$ ), tortuosity and the history of skin aphthosis ( $p=0.015$ ), architectural derangement and the history of uveitis ( $p=0.029$ ), the number of avascular areas and active oral aphthosis ( $p=0.021$ ) and architectural derangement and increased ESR ( $p=0.011$ ).

**Conclusion:** We found no difference in small vessel involvement of nail fold capillary between BD patients with and without large vessel involvement. Among BD patients with large vessel involvement, the number of avascular area was significantly associated with superficial phlebitis and deep vein thrombosis.

**Keywords:** Behcet's disease, Vascular involvement, Capillaroscopy.

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**P1-4****Scleromyxedema and Hyperphosphatemia:  
Causal Relationship or Coincidence?****Shokoufeh Mousavi<sup>1</sup>, Maryam Masoumi<sup>1\*2</sup>, Saeed Shakiba<sup>3</sup>**<sup>1</sup> *Clinical Research Development Center, Shahid Beheshti Hospital, Qom University of Medical Sciences, Qom, Iran.*<sup>2</sup> *Rheumatology Research Center, TUMS. Tehran. Iran*<sup>3</sup> *School of Medicine, Tehran University of Medical Science*

**Introduction:** Scleromyxedema is a very rare primary cutaneous mucinosis disease. The etiopathogenesis of this condition is unknown. Manifestation of Scleromyxedema very wide and changes from skin to extracutaneous involvement. Although hyperphosphatemia has not been reported as one of the signs of Scleromyxedema until now, we real association or coincidence between scleromyxedema and hyperphosphatemia is only exceptionally reported.

**Case Presentation:** He is 62-year-old man who was developed chronic and non-specific musculoskeletal pain especially in pelvic region with no morning stiffness consistent for 3 years. He also complained of dysphagia, tingling, pruritus and thickening of skin folds, which were associated with papules in the face, Skin sclerosis and significantly limited flexion and internal rotation of the hip joint especially on the right side. Laboratory assessments, Plain radiography and skin biopsy from Forearm was finally made the diagnosis of scleromyxedema simultaneous of diffuse Calcification in combination with hyperphosphatemia and normal serum calcium concentration. Plain radiography of the indicated massive calcification in soft tissue and muscles surrounding the hip bone. The skin biopsy from the second finger of patient's right hand showed arrangement of collagen bundles intermixed with thickened elastic fibers and specifically. Fibroblastic proliferations were predominant rather than mucin deposition. The patient improved when achieved with IVIG, prednisolone, and methotrexate and his sign and symptoms regressed.

**Conclusion:** Our case is of great importance because of simultaneous existence of scleromyxedema, hyperphosphatemia and normal serum calcium concentration. These conditions rarely coincide and a similar case has never been reported before.

**Keywords:** scleromyxedema, hyperphosphatemia, cutaneous mucin.

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P1-5

## A Case of Antiphospholipid Syndrome Following Gastric Signet Ring Cell Adenocarcinoma

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**Aim:** The aim of this case report is to record Antiphospholipid syndrome (APS) secondary to Rare neoplasm such as Gastric Signet Ring Cell Adenocarcinoma.

**Case Report:** A 53-year-old woman presented with pain and pitting edema of left lower extremity in 6 month ago. Deep vein thrombosis (DVT) in the popliteal vein diagnosed by Doppler ultrasonography and the patient was treated with warfarin. Following subdural hematoma, anticoagulant therapy was temporarily stopped and the patient underwent craniotomy. Lupus anticoagulant, IgM and IgG anticardiolipin antibodies were positive, but anti-double stranded DNA, and antinuclear antibodies were negative. A large infiltrable lesion in gastric was seen by endoscopic images, and biopsy histopathology showed an adenocarcinoma with signet ring cell component. Triphasic computed tomography (CT) scan of the abdomen showed hypodense lesions in the liver resembling metastases. It is desirable to perform antiphospholipid antibody tests in patients with malignancy, because can be help to identify patients predisposed to thrombose.

**Conclusion:** Previous studies have shown that APS can be associated with malignancies. we found an APS associated with gastric Signet ring cell adenocarcinoma. Only one case of stomach cancer with APS was found in the literature

**Keywords:** Antiphospholipid Syndrome, Anticardiolipin, Gastric Cancer

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**P1-6****Investigating Diagnostic Value of Procalcitonin Serum Level in Diagnosis of Etiology of Fever with Unknown Origin****Batool Zamani<sup>1</sup>, Seyed Reza Mossavi<sup>2</sup>**<sup>1</sup> *Autoimmune Diseases Research Center, Kashan University of Medical Sciences, Kashan, IR, Iran.*<sup>2</sup> *Kashan University of Medical Sciences, Kashan, IR, Iran.*

**Aim:** Fever with unknown origin (FUO) is one of the important issues in medicine, its causes are different, including infectious causes, malignancy, and collagen vascular diseases. Procalcitonin is a recently recognized diagnostic marker for infections. This study was designed to evaluate the diagnostic value of procalcitonin in distinguishing etiology of FUO.

**Methods:** This prospective cross-sectional study was conducted in FUO patients referring to Beheshti Hospital of Kashan. Clinical findings, physical examinations and laboratory tests and final diagnosis were recorded in a questionnaire, then information was entered into SPSS 16 software and T-test and ANOVA were used for analysis.

**Results:** This study was performed on 210 patients with FUO over 12 years olds, of which 101 (48.1%) were male and 109 (51.9%) were female. The cause of FUO was 45.7% infectious, 26.7% had neoplasm, 16.2% had collagen vascular disease and 11.4% had unknown causes. The mean serum Procalcitonin level in these three groups was  $2.9 \pm 5.42$  and  $0.89 \pm 1.28$  and  $0.5 \pm 0.44$ , respectively. The mean serum Procalcitonin level was higher in infectious diseases than other two groups and cut-off point was 1ng/ml. Procalcitonin was significantly associated with the sex ( $p < 0.001$ ) but there was no association with clinical manifestations ( $p = 0.138$ ), examinations ( $p = 0.77$ ) and rheumatologic tests ( $p = 0.992$ ).

**Conclusion:** Therefor, Procalcitonin are effective in differentiating infectious causes of FUO from non-infectious causes (neoplasm and collagen-vascular disease), and cutoff point 1ng/ml is helpful.

**Keywords:** FUO, Procalcitonin, Infection, Neoplasm, Collagen-vascular disease

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P1-7

## An Evaluation on CD18 Expression in Animal Model by Staphylococcal Superantigene C

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**Aim:** this study aimed to assay the effect of staphylococcal superantigen C (enterotoxin C) on the expression of CD18 in animal rats.

**Methods:** 50µg micrograms of the toxin were injected intraperitoneal and intrasynovial into separate rat groups. in time course blood collection was carried out. The RNA was extracted. Then the cDNA was synthesized. After that, the expression of CD18 was evaluated using RT-Real-Time PCR. The results were analyzed.

**Results:** The results showed that 50µg of toxin intraarticular and intraperitoneal after 20 days the surplus expression of the markers of CD18. The expression of the markers in rats which receiving superantigen as intraarticular and intraperitoneal groups was more than three times in comparison by the controls groups respectively.

**Conclusion:** The results indicate that the presence of superantigen C of *Staphylococcus aureus* in rats be able to induce and enhance the CD18 expression more than 3-fold. However, this finding is an introduction to further research, it is probably could provide some tools for discussion of regulatory biomarkers and helps to prevent and control inflammatory diseases, including rheumatoid arthritis. The clinical implication of the current study is helping to clarify a possible role of superantigen on the mechanisms of pathophysiology of RA. The CD18 biomarkers expression in this study was influenced by superantigen C, and it probably has been the basic tools for drug evaluation and patient's management. Furthermore, control CD18 biomarker expression by exogenous superantigen as agonist biomarker may provide protocols to design diagnostic methods and prevention procedures

**Keywords:** Inflammatory marker, superantigen C, CD18, *Staphylococcus aureus*

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**P1-8****Relationship Between Body Mass Index and Bone Mineral Density in Mashhad, Iran; a Cross-sectional Study****Nayyereh Saadati<sup>1\*</sup>, Maryam Miri<sup>2</sup>, Mandana Khodashahi<sup>3</sup>**<sup>1,3</sup> *Rheumatic Diseases Research Center (RDRC), Internal Medicine, Ghaem Hospital, Mashhad University of Medical Sciences, Mashhad, Iran*<sup>2</sup> *Kidney Transplantation Complications Research Center, Department of Internal Medicine, Ghaem Hospital, Mashhad University of Medical Sciences, Mashhad, Iran*

**Aim:** Osteoporosis is growing among Iranian population. The aim of this study was to assess the relationship between Body Mass Index (BMI) and BMD among a sample of Iranian population.

**Methods:** This cross-sectional study was conducted on Iranian referred to Ghaem Hospital, Mashhad, for bone densitometry. Our study examis the relationship between BMI, height, weight, and BMD. Dual-energy X-ray Absorptiometry (DEXA) scanning included two lumbar spine (L2-L4) and femur regions (LUNAR Corp.). Scan risky patients Subjects were excluded. The femoral T score (FT (and lumbar score (LT) were recorded. Data was analyzed using the statistical package for social sciences (SPSS) software.

**Results:** 302 subjects (15.2% male and 84.8% female) participated. Mean age was 55.15±12.03 years. Osteopenia and osteoporosis were observed in 29 (9.6%) and 9 (3.0%), respectively. Mean BMI of subjects was 28.53±3.31 kg/m<sup>2</sup>. There was no statistically significant difference between genders in terms of FT, and LT (p>0.05). There was significant correlation between LT age (r=-0.17, p=0.002). There was significant correlation between FT and BMI (r=0.17, p=0.009) while only FT was significantly correlated with age (r=-0.12, p=0.045). BMD was significantly lower in >55 years group compared to 40-55 group (p=0.003).

**Conclusions:** This study revealed lower prevalence of osteoporosis compared to regional and national data. There was a significant correlation between age and BMD in both genders. There was also a significant positive correlation between BMI and BMD especially among post-menopausal women. Therefore, it is suggested to assess other risk factors for larger number of patients.

**Keywords:** Bone mineral density; Body mass index; Osteoporosis; Osteopenia.

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P1-9

## Measurement of Biochemistry, Hematology and Serology Tests in Rat Model of Collagen-Induced Rheumatoid Arthritis

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**Aim:** Collagen-induced arthritis (CIA) was originally established as an important animal model for inducing Rheumatoid Arthritis (RA) which uses type II collagen (CII) and Incomplete Freund's adjuvant (IFA). Biochemistry, hematology and serology parameters have been less studied in this model. In this study we aim to examine these parameters in wistar rat model of RA.

**Methods:** In order to induce CIA in rats, 0.1 ml CII-IFA emulsion was injected at base of tail and 0.1 in footpad as starting point of inflammation. Blood samples of test and control groups were collected on days 0, 7, 14 and 21 for measurement of glucose, cholesterol, triglyceride, urea, creatinine, uric acid, calcium, phosphorus and liver enzymes (SGOT, SGPT, ALP) as biochemistry tests. Also ESR, CBC and related indices (MCV, MCH, MCHC, RDW) as hematology tests in addition to CRP and RF as serology markers.

**Results:** Samples on day 7 showed a significant increase ( $p < 0.05$ ) in blood sugar, urea, SGOT, ALP, white blood cell (WBC) and neutrophils that gradually went back to the initial level (day 0). No significant difference was observed in other parameters. On day 14 and 21, minor decrease in RBC, hemoglobin and hematocrit were seen. ESR did not change than to day 0 and CRP and RF were negative in all samples.

**Conclusion:** Increase in mentioned biochemistry parameters in wistar rat model can indicate relationship between their immune system and metabolic system. Hematology parameters regardless of WBC and neutrophil did not change. Also cannot use CRP and RF as serological assessments.

**Keywords:** Biochemistry, Hematology, Serology, Rheumatoid Arthritis, Collagen animal model

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**P1-10****Effect of Sesamin Supplementation on the Blood Pressure Status  
Rheumatoid Arthritis Women****Bijan Helli<sup>\*1</sup>, Leila Sheikh<sup>2</sup>**<sup>1</sup> Assistant Professor, Research Committee, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Ahvaz, Iran<sup>2</sup> Msc nutrition student, Research Committee, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Ahvaz, Iran

**Introduction:** Rheumatoid arthritis is a chronic autoimmune systemic disease. Sesamin is the most important ligand in sesame seeds.

**Materials and Methods:** This triple-Blind clinical trial study performed with a sample size of 44 people for 6 weeks. Individuals were randomly divided into placebo and conservative groups. Data analysis was performed using SPSS-18 software. Significance level was considered  $P < 0.05$ .

**Results:** Intra-group comparisons of blood pressure at the beginning and at the end of the study indicated a significant reduction in systolic blood pressure in the supportive group of patients receiving sesamine at the end of the study compared to the beginning of the study ( $P = 0.033$ ). Also, the comparison of systolic and diastolic blood pressure changes between the two groups showed that there was no significant difference in systolic blood pressure changes between the two groups ( $P = 0.90$ ).

**Conclusion:** Although there wasn't statistical difference in blood pressure between sesamine and placebo but systolic blood pressure decreased significantly in the sesamine supplement group. One of the possible mechanisms of the effect of sesame oil on lowering blood pressure can be to improve the balance of the oxidative-antioxidant system.

**Keyword:** sesamin, blood pressure, rheumatoid arthritis

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P1-11

## Study of the Effects of Sesamin Supplementation on the Proteolysis Enzymes Status in Women with Rheumatoid Arthritis

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**Introduction:** The prevalence of rheumatoid arthritis in Iranian men is 0.1% and in women of Iran is 0.55%. The purpose of this study was to evaluate the anti-arthritis, anti-inflammatory effects and the effectiveness of this nutritional supplement on proteolysis enzymes.

**Materials and Methods:** A randomized, triple-blind, placebo-controlled clinical trial study was performed on 44 patients who were randomly divided into Sesamin supplement(200 mg) control group and for 6 weeks. Data were analyzed using SPSS (version 18). statistically significant. was considered  $p < 0.05$ .

**Results:** the serum levels of serum metalloproteinase and serum hyaluronidase in the recipient group were significantly lower than the beginning of the study ( $P=0.003$  and  $P=0.002$  respectively). Reducing serum concentrations when the cesarean was marginally significant at the end of the study in the sesame group ( $P=0.055$ ). Comparison of changes in levels of protease enzymes between the two groups showed that the changes in the matrix metalloproteinase and serum hyaluronidase were significantly higher in the sesamin group than in the placebo group ( $P=0.042$  and  $P=0.049$  respectively). The present study was approved by Research Ethics Committee of Ahvaz University of Medical Sciences ethics committee (IRCT2013111715424N1).

**Conclusion:** Administration of Sesamine by inhibitory effect on the activity of these enzymes in cartilage and bone can have an effective role in the non-degeneration and bone deformity in the joints of patients with rheumatoid arthritis. Future studies require the measurement of serum sesamin levels and some of the inflammatory markers.

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**P1-12****The Effects of Sesamin Supplementation on the Severity of Pain in Women with Rheumatoid Arthritis****Bijan Helli<sup>1</sup>, Leila Sheikhi<sup>2</sup>**<sup>1</sup> Assistant Professor, Research Committee, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran<sup>2</sup> Msc nutrition student, Research Committee, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

**Introduction:** Rheumatoid arthritis is a systemic and chronic disease. The aim of this study was to evaluate the effects of sesamin supplementation on the severity of pain in women with rheumatoid arthritis.

**Materials and Methods:** A randomized, triple-blind, placebo-controlled clinical trial study was performed on 44 patients who were randomly divided into Sesamin supplement(200 mg) control group and for 6 weeks. Data were analyzed using SPSS (version 18). statistically significant. was considered  $p < 0.05$ .

**Results:** The mean of pain indices between the two groups was not statistically significant ( $P < 0.05$ ). Also, at the end of the study, supplementation with Sesamin compared with placebo significantly decreased the number of painful joints ( $P < 0.05$ ). Within analyze showed that the mean of all clinical indices at the end of the study was significantly lower in the group treated with Sesamin compared to the beginning of the study ( $P < 0.05$ ). There was no such effect in the placebo group. The present study was approved by Research Ethics Committee of Ahvaz University of Medical Sciences ethics committee (IRCT2013111715424N1).

**Discussion:** The best treatment is to improve the patient's condition, reduce pain and inflammation, and control the side effects of rheumatoid arthritis in a person with this disease. Sesamine, as one of the main ingredients in sesame oil, has similar effects and can be used in the treatment of pathologic disorders. Therefore, receiving a supplement of Sesamine (200 mg / day) for 6 weeks can reduce the pain of arthritic patients.

**Keyword:** sesamin, pain, women, rheumatoid arthritis

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**P1-13**

## **Effects of Ginseng Supplementation on Selected Markers of Inflammation: A Systematic Review and Meta-analysis**

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The actual effect of ginseng supplementation on inflammation is inconsistent. Present meta-analysis was performed to evaluate the efficacy of ginseng administration on serum level of inflammatory biomarkers. We performed a systematic search of all available Randomized controlled trials (RCTs) conducted up to Jun 2018 in the following electronic databases: PubMed, Scopus, Cochrane and Google Scholar. RCTs which investigated the effect ginseng supplementation on high sensitivity C-reactive protein (hs-CRP), tumor necrosis factor- $\alpha$  (TNF- $\alpha$ ) and interleukin-6 (IL-6) were included for final analysis. The pooled mean difference (MD) of included studies was estimated using random-effects model. A total of seven RCTs included in present meta-analysis. Meta-analysis results indicated significant reduction in IL-6 (MD: -0.265 pg/ml, 95% CI: -0.396, -0.135,  $p < 0.001$ ) and TNF- $\alpha$  (MD: -2.055 pg/ml, 95% CI: -2.662, -1.447,  $p < 0.001$ ) and no significant change in hs-CRP (MD: -0.299 mg/l, 95% CI: -0.601, 0.003,  $p = 0.052$ ) after ginseng supplementation. Although there was publication bias across studies but trim and fill analysis showed that results from unpublished studies could not change the results for CRP. However, Jung et al showed significant sensitivity; removing this study change results to a significant value. The results must be interpreted with caution. Present meta-analysis concludes that ginseng supplementation significantly lower IL-6 and TNF- $\alpha$  but did not change CRP significantly. Because pooled analysis showed that one study influence results significantly future long-term well-designed dose-escalating trials are required.

**Keywords:** Ginseng, Inflammation, Meta-analysis, C-reactive protein

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**P1-14****Osteoporosis in Postmenopausal Women with Symptomatic Knee Osteoarthritis Versus Healthy Controls: A Case-Control Study****Mansour Babaei<sup>1,2</sup>, Komeil Noorozi<sup>3</sup>, Behzad Heidari<sup>1,2\*</sup>**<sup>1</sup> *Mobility Impairment Research Center, Health Research Institute, Babol University of Medical Sciences, Babol, I.R.Iran*<sup>2</sup> *Clinical Research Development Unite of Rouhani Hospital, Babol University of Medical Sciences, Babol, I.R.Iran*<sup>3</sup> *Student Committee Research, Babol University of Medical Sciences, Babol, Iran.*

**Background:** Symptomatic knee osteoarthritis (KOA) imposes postmenopausal women at greater risk of osteoporosis. The purpose of this study was to determine the association of symptomatic KOA with osteoporosis in postmenopausal women.

**Methods:** Postmenopausal women with symptomatic KOA were recruited among patients presented a rheumatology clinic. The diagnosis of KOA was made by ACR criteria. Age- matched subjects without clinical KOA served as control. Bone mineral density (BMD) in the femoral neck (FN) and lumbar spine (LS) was determined by dual energy x-ray absorptiometry (DXA) method. Osteoporosis was diagnosed based on BMD T-score < -2.5 at either FN or LS. The two groups were compared according to BMD g/cm<sup>2</sup> and proportion of osteoporosis by Student t -test and chi square test respectively using SPSS version 18 software

**Results:** Thirty -five patients and 35 controls with respective mean±SD ages of 61.9±8.69 and 58.8±6.8 (p=0.67) years were studied. The FN- BMD g/cm<sup>2</sup> in the FN was lower in patients than in the controls (.835±.217 vs .862±.239 g/cm<sup>2</sup>, p=0.62). Similarly LS - BMD in the patients was lower than in the control (1.067±.276 vs 1.07±.158 g/cm<sup>2</sup>, p=0.92). Overall, 33.3% of patients and 22.2% of the controls had osteoporosis (p=0.42).

**Conclusion:** These findings indicate no association between symptomatic KOA and osteoporosis in postmenopausal women.

**Keywords:** Association, Knee Osteoarthritis, Symptomatic, Postmenopausal

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P1-15

## Relationship Between Bone Mineral Density in Patients with Rheumatoid Arthritis Referred to Imam Khomeini Hospital in Ardabil

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**Aim:** Rheumatoid arthritis is a chronic, progressive, autoimmune disease that destroys inflammation and pain in the joints and surrounding tissues. Bone density around the joints and its constituent ions play a key role in controlling its status and activity.

**Materials and Methods:** Our statistical population included 76 patients with rheumatoid arthritis referred to Imam Khomeini Hospital in Ardabil in 1997-96 and 4 patients were divided into control group to evaluate bone mineral density by DEXA method. Lumbar and femoral neck (L2-L4) were performed. Data were analyzed by SPSS v.24 and t-test.

**Results:** The mean age of the subjects was 9.1 12 12.59 years for women and 7.1 16 16.61 years for bone density in the lumbar spine and femur, respectively (9.4% and 9.9%, respectively). Bone density was 2/54/2% in femoral neck and 82/82% in lumbar region. Mean lumbar bone density was 19.1 gr / cm. There was a significant difference with the disease (OR=95% CL=95% OR=3.14-14 / 65/14/952). Also, bone density in the femoral neck in the patient group was 0.934 g / cm and in the control group 162.1 g / cm. M The patient group showed a significant relationship with the incidence of the disease (OR=95% CL=9/86/25=OR=0.005).

**Conclusion:** Based on the results, bone density in femoral neck was higher than bone density in lumbar spine, which can be used as a prenatal factor.

**Keywords:** Bone Density, Rheumatoid Arthritis, Neck, Femu

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**P1-16****The Prevalence of Aphthous Stomatitis and Behçet's Disease in Health Care Providers of Tabriz University of Medical Sciences****Alireza Khabbazi, Aida Malek Mahdavi, Masoud Nouri-Vaskeh, Sepehr Sadeghifard***Connective Tissue Diseases Research Center, Tabriz University of Medical Sciences, Tabriz, Iran*

**Aim:** Aphthous stomatitis is the most common ulcer of oral cavity. Recurrent aphthous stomatitis (RAS) is a self-limited disorder. It heals during one to two weeks and usually occurs three to six times a year. This study aimed to investigate the prevalence of RAS and Behçet's Disease in the health care providers of Tabriz University of Medical Sciences.

**Methods:** In a cross-sectional study, health care providers of three referral hospital were investigated using face-to-face interview and were examined by a rheumatologist if they have history of aphthous. Patients with aphthous stomatitis were examined for aphthous features. The association between RAS and family history and cigarette smoking was also assessed.

**Results:** A total of 467 (206 Male) participants were recruited to the study. The mean age of participants was  $33.53 \pm 8.38$  years and 115 persons (24.6%) had history of aphthous stomatitis. Among these, 82 persons (17.5%) had positive familial history and there was a significant association between aphthous stomatitis and familial history ( $P < 0.001$ ). But there was not a significant association between aphthous stomatitis and smoking ( $P = 0.549$ ). The most common region for aphthous was gingiva followed by lip and buccal mucosa. Also, the frequency of aphthous stomatitis was the most frequent every six months. None of the individuals had Behçet's disease according to interview and clinical examinations.

**Conclusion:** The prevalence of aphthous stomatitis among Tabriz University of Medical Sciences staffs was 24.6%.

**Keywords:** Aphthous Stomatitis, Behcet Diseases, Smoking

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P1-17

## Elevated IL-38 Serum Levels in Newly Diagnosed Patients with Systemic Sclerosis

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**Aim:** Interleukin (IL)-38, is a newly-discovered member of IL-1 cytokine family. A number of studies have investigated the role of IL-38 in various disorders including autoimmune diseases. In the present study, for the first time we aimed to evaluate the IL-38 serum level in patients with systemic sclerosis (SS) and its correlation with disease features.

**Methods:** Serum samples were obtained from 86 patients with SS. of the patients, 40 were new cases and had not received therapy. Approximately half of the patients were in each category of diffuse or limited SS. IL-38 level in patients sera was determined using ELISA. The relation of IL-38 to patients' characteristics was evaluated. Research reported in this abstract was supported by Elite Researcher Grant Committee under award number [971223] from the National Institutes for Medical Research Development (NIMAD), Tehran.

**Results:** IL-38 level was not significantly different between total patients and healthy controls. Whereas, we could find a significant difference between previously treated patients (166.8±33.1 pg/ml) and newly diagnosed cases (185.2±36.3 pg/ml, P=0.001), and between new cases and their age and sex-matched control group (173.4±46.5, P=0.032). A negative correlation between age and IL-38 level in total and treated patients (P<0.05) was detected. No significant difference of IL-38 level in relation to disease activity, organ involvement and paraclinical data such as serum ESR or CRP was observed.

**Conclusions:** According to higher levels of this cytokine in sera of newly diagnosed patients, we could consider a protective role for this cytokine in the disease context.

**Keywords:** IL-38, auto-immune diseases, systemic sclerosis, cytokine

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**P1-18****Comparing the Effects of Oleoresin of Pistacia atlantica (Turpentine) Tree and Diclofenac Gel in Improving the Knee Osteoarthritis****Shahla Abolghasemi***Department of Rheumatology, Tehran Medical Sciences Branch, Islamic Azad University, Tehran, Iran*

**Aim:** Osteoarthritis is the most common chronic rheumatoid disease, which affects the cartilage and tissues around the joints. This disease is one of the main causes of the pain and disability among older adults in most countries of the world. This disease does not have definitive treatment, and the used treatment controls the symptoms and pain. Turpentine can inhibit many of the enzymes involved in the inflammation process of osteoarthritis disease. Formulation of turpentine cream was used to reduce the pain, inflammation, and problems of patients with knee osteoarthritis with the aim of reducing the serious side effects of conventional therapies.

**Methods:** Clinical effects of this formulation on 84 patients with knee osteoarthritis (grade 2 and 3) were evaluated in a double-blind clinical trial study for three months, and diclofenac gel was used as a control drug. The mentioned formulation was analyzed for standardization with the GC-Mass apparatus. A WOMAC international questionnaire was used to assess the therapeutic trend. Results were analyzed by using SPSS 19 software.

**Results:** According to the results, the improvement trend was observed in both groups, while the percentage of improvement in the symptoms of the disease was significantly higher in the turpentine group than that in diclofenac gel group ( $P < 0.05$ ).

**Conclusion:** According to the studies performed, the turpentine cream significantly reduces the pain and stiffness of patients' joints in performing the daily tasks. It is one of the most common problems of this disease.

**Keywords:** Osteoarthritis, Turpentine, Diclofenac, WOMAC questionnaire

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**P1-19**

## **Nailfold Videocapillaroscopy Changes in Takayasu Arteritis and Their Association with Disease Activity and Subclavian Artery Involvement**

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**Aim:** Takayasu arteritis (TA) is a large vessel vasculitis characterized by the involvement of the aorta and its branches. In the present study, the nailfold videocapillaroscopy (NVC) findings of the TA patients were evaluated and compared to healthy individuals. Additionally, the association of NVC abnormalities with disease activity and subclavian artery involvement was also investigated.

**Methods:** In the present study, NVC changes of 15 TA patients and 15 age- and sex-matched healthy controls were compared. The frequency of hypertension, dyslipidemia, and smoking status was not different between the case and control group. Capillary density, avascular area, tortuosity, micro-hemorrhages, and ramification were investigated. Among capillaries' diameters; capillary length and width, arterial and venous limbs diameters were also compared between two groups.

**Results:** The capillary length and venous limb diameter were lower in TA patients compared to control cases (P-value: 0.026 and 0.049, respectively). Moreover, TA patients have more tortuous capillaries (P-value: 0.035). Among TA patients; capillary length, width, arterial and venous limbs diameter was lower in hands with subclavian involvement (P-value: 0.014, 0.034, 0.009 and 0.022, respectively). Furthermore, the arterial and venous limbs diameter were lower in TA patients with active disease compared to patients with inactive disease (P-value: 0.018 and 0.049, respectively).

**Conclusion:** In the present study, we have shown that the hands with subclavian artery involvement have short, thin and tortuous capillaries which could be secondary to hypoperfusion. To the best of our knowledge, this is the first report describing NVC changes in TA.

**Keywords:** Takayasu Arteritis; Microscopic Angioscopy; Subclavian Artery; Systemic Vasculitis

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**P2-1****The Relation of Interleukin-38 Serum Level to Eye Involvement in Patients with Behcet's Disease****Maryam Zarrabi<sup>1</sup>, Nasser Gholijani<sup>1</sup>, Elham Aflaki<sup>1,2</sup>, Saeedeh Shenavandeh<sup>2</sup>, Zahra Amirghofran<sup>1,3</sup>**<sup>1</sup> *Autoimmune Diseases Research Center, Shiraz University of Medical Sciences, Shiraz, Iran*<sup>2</sup> *Division of Rheumatology, Shiraz University of Medical Sciences, Shiraz, Iran*<sup>3</sup> *Immunology Department, Shiraz University of Medical Sciences, Shiraz, Iran*

**Aim:** Behcet's disease (BD), is a chronic multi-system and auto-immune disorder characterized by relapsing occurrence of oral aphthous ulcers, genital ulcers, skin and ocular lesions. Interleukin (IL)-38, previously named as IL-1HY2 is a member of the IL-1 cytokine family. The precise biological characteristics of IL-38 have not been well characterized. However, it is suggested that this cytokine would have inhibitory function in inflammatory conditions via IL-36Ra downstream signaling pathways. Elevated serum levels of IL-38 in patients with rheumatoid arthritis and systemic lupus erythematosus has been reported. However, there is no report on the possible role of this newly identified cytokine in the pathogenesis of BD. In the present study we aimed to examine the probable role of IL-38 in BD patients.

**Methods:** Our study group was composed of 81 patients with BD. The serum levels of IL-38 were measured using enzyme-linked immunosorbent assay. Research reported in this abstract was supported by Elite Researcher Grant Committee under award number [971223] from the National Institutes for Medical Research Development (NIMAD), Tehran, Iran

**Results:** We found a statistically significant difference in IL-38 serum levels between patients with positive pathergy test ( $188.9 \pm 62.96$  pg/ml) and those with negative pathergy test ( $160.1 \pm 37.52$  pg/ml) ( $P=0.048$ ). The serum level of IL-38 in patients with eye involvement ( $166.3 \pm 34.82$  pg/ml) was higher compared to in those without eye involvement ( $161.7 \pm 54.01$  pg/ml) ( $P=0.046$ ). The same results were obtained in female group of patients.

**Conclusion:** A positive relationship between IL-38 serum levels and eye involvement imply that IL-38 may play a role in this illness.

**Keywords:** IL-38, autoimmune diseases, Behcet's disease, cytokine

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P2-3

## Association of Carotid Atherosclerosis and Bone Mineral Density in Postmenopausal Women

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**Aim:** Some studies have implicated several possible metabolic linkages between osteoporosis and vascular calcification, including estrogen deficiency, vitamin D excess, vitamin K deficiency and lipid oxidation products. Nevertheless, it remains unclear whether osteoporosis and atherosclerosis are related to each other or are independent processes, both related to aging. The aim of this cross-sectional study was to evaluate the correlation between arterial thickening and bone status in menopause woman.

**Methods:** 70 postmenopausal women were studied. All patients were without secondary causes that might affect bone density. Bone status was assessed by bone mineral density (BMD) in lumbar spine and all femoral sites. Arterial wall thickening was assessed by intima-media thickness (IMT) in carotid artery (CA).

**Results:** By Spearman Rank correlation, CA IMT was positively correlated to Femoral total BMD ( $r=-0.2$ ), spine BMD ( $r=-0.3$ ), while there was association with lumbar BMD. In our analysis, CA IMT emerged as an independent factor significantly associated with all femoral and spine sites BMD after adjusting of confounding factors. No significant differences between plaques groups were found concerning lumbar BMD and all femoral sites BMD.

**Conclusion:** Our results demonstrate a positive correlation between bone mineral density and carotid intima-media thickness in postmenopausal women, independent of confounding factors. We suggest that bone status should be evaluated in patients with vascular disease to assess whether preventive or therapeutic intervention is necessary.

**Keywords:** atherosclerosis, bone mineral density, carotid artery intima media thickness, osteoporosis

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**P2-3**

## **Comparison of the Effect of Cognitive Behavioral Therapy with Duloxetine on the Clinical and Laboratory Indices of Fibromyalgia Patients: an Open Label Clinical Trial**

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**Background:** Cognitive behavioral therapy (CBT) is considered the main non-pharmacologic treatment in fibromyalgia, while duloxetine is the main pharmacologic therapeutic modality in this disorder. In this clinical trial, we aim to compare the effect of CBT with duloxetine on the clinical and laboratory indices of fibromyalgia patients to find which treatment is most appropriate.

**Patients and Methods:** Fibromyalgia patients who were referred to the rheumatology clinic of Shafa Orthopedic Hospital between 2017 and 2018 were informed of the available therapeutic options, including CBT and duloxetine. Forty-one patients chose non-pharmacologic treatment and included in the CBT group. Fifty-three patients chose pharmacologic treatment and included in the duloxetine group. For the CBT group, conventional face-to-face CBT was performed for groups of at most ten patients in 20 sessions. Patients of the duloxetine group received 60 mg/day duloxetine for two months. Fibromyalgia Impact Questionnaire (FIQ), widespread pain index (WPI), and circulating levels of IL-6, IL-8 were evaluated before the start and at the end of the intervention.

**Results:** Twenty-eight patients in the CBT group completed the study (13 patients missed more than five sessions and were excluded). Thirty-one patients in the duloxetine group completed the study (22 patients were excluded for the drug intolerance). The mean IL-6 improvement was  $1.8 \pm 2.5$  pg/ml in the CBT group and  $0.6 \pm 1.7$  pg/ml in the duloxetine group ( $p=0.03$ ). The mean IL-8 improvement was  $39 \pm 22.1$  pg/ml in the CBT group and  $12.2 \pm 23.3$  pg/ml in the duloxetine group ( $p=0.02$ ). The mean FIQ improvement was  $12.1 \pm 15.2$  in the CBT group and  $11.1 \pm 16.2$  in the duloxetine group ( $p=0.22$ ). The mean WPI improvement was  $2.5 \pm 3.3$  in the CBT group and  $2.7 \pm 3$  in the duloxetine group ( $p=0.41$ ).

**Conclusion:** Improvement of laboratory, but not clinical indices of fibromyalgia, was more significant after CBT than duloxetine treatment. Also, drug intolerance was one of the main limitations of duloxetine therapy. These results reveal the importance of CBT in the treatment of fibromyalgia and suggest more widely implication of this method in the treatment of fibromyalgia symptoms.

**Keywords:** Fibromyalgia, cognitive behavioral therapy, duloxetine, IL-6, IL-8.

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P2-4

## Evaluation of Platelet Count and Function in Patients with Rheumatoid Arthritis and Its Relation with Severity of Disease

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**Background and Aims:** Rheumatoid arthritis (RA) is the most common chronic inflammatory disease of the joints. Increased platelet counts may be observed during the clinical active stages of RA patients and reduce in the remission period. The present study investigated the role of platelet indices in RA and its relationship with disease activity.

**Materials and Methods:** This was an observational cross-sectional study, which was performed on 140 patients with RA referred to Ghaem hospital of Mashhad in 2017. The patients were divided into four groups, including 1) the patients with newly diagnosed RA, 2) the patients with active RA, 3) the patients in remission, and 4) the controls. The levels of erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), white blood cell count (WBC), platelet number (PLT), mean platelet volume (MPV), hemoglobin and creatinine were measured.

**Results:** The mean age of the participants was 49.06±11.08 years. There was a significant difference between newly diagnosed and active groups in term of mean platelet volume (MPV) (P=0.006). The comparison of neutrophils percentage showed that there was a significant difference between the active and remission groups (P=0.01).

**Conclusion:** The obtained results of the present study showed a relationship between the platelet indices (e.g., ESR, CRP, WBC, PLT, and MPV) and disease activity. The findings of this study emphasized on the use of MPV as a marker with high-grade inflammation for monitoring treatment in RA patients. Future prospective studies with large sample size are required to determine the associations of high and low values of MPV with inflammation markers.

**Keywords:** Disease Activity; Mean Platelet Volume; Platelet Number; Rheumatoid Arthritis

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**P2-5****Relationship Between Chondrogenic Knee Cholestasis in Rheumatoid Arthritis Patients in Ardabil Province Population****Ramin Nouri<sup>1</sup>, Morteza Hakimian<sup>2</sup>, Raziieh Azad kasb<sup>3</sup>, Saba Shirmohamadi<sup>4</sup>**<sup>1</sup> *Sasan Talaneh, PhD Student of Medical Genetics, Tehran University of Medical Sciences, Iran*<sup>2</sup> *Ali Sadeghianifar, General Practitioner, Urmia University of Medical Sciences, Urmia City Health Center, Iran*<sup>3</sup> *Nooshin Ensafi, Nursing Expert, University of Medical Sciences, School of Nursing, Urmia, Iran*<sup>4</sup> *Zahra Azad Business, Midwifery Expert, University of Medical Sciences, School of Nursing and Midwifery, Urmia, Iran*

**Aim:** Chondrogenesis is a pseudoarticular gout from chronic inflammatory diseases and its main cause is the formation of calcium crystals in the joint space. Is

**Materials and Methods:** The statistical population of this study consisted of 4 patients with knee osteoarthritis referred to Imam Khomeini Hospital in Ardebil in year 1-6. Personal data of individuals were extracted from personal records recorded in the hospital and all telephone calls were obtained. The data were analyzed by SPSS V.24 software. The parameters included chondrogenesis and osteoarthritis, bone cysts and internal tibiofemoral joint space were measured. Finally, the data were analyzed by SPSS V.24.

**Results:** The mean age of the subjects was  $7.1 \pm 2.61$  years, which included 5% of men and 5% of women. About 17.11% of patients with cholelithiasis were over 5 years of age and were graded in the Glicker- group. Lawrence was in 9.1 17 17.51% of patients with internal tibiofemoral arthritis and 12.3% with external tibiofemoral arthritis and 19.11% with arthritis pain. 17.2 12 12.69% had advanced osteoarthritis. Among the 9/11% of patients with bone cysts, weight gain was fully evident in 7.1 12 12.7% of the population, 9.9% with post-nodus, 8.13% with bushard and 8.32% with Both nodes 22/12 d Observations lacked any ninety.

**Conclusion:** According to the results, most patients were associated with decreased internal tibiofemoral articular space and weight and obesity were also causes of rheumatoid arthritis and cholelithiasis.

**Keywords:** Cholesterol, Rheumatoid Arthritis, Tibiofemoral

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**P2-6**

## **Effect of Nigella Sativa L. on Reduction of Pain in Patients with Knee Osteoarthritis**

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**Introduction:** Knee osteoarthritis is one of the most common causes of disability in the elderly. The most important therapeutic goal of knee osteoarthritis is to reduce pain. Since Corncockle currant is widely used in the treatment of rheumatoid arthritis and it has anti-inflammatory and anti inflammatory properties. Therefore, this study The aim of this study was to determine the effect of Corncockle oil on the reduction of pain in patients with knee osteoarthritis

**Materials and Methods:** In this study, 40 patients with knee rheumatoid arthritis (and confirmation of diagnosis by a specialist) referred to Sajjad Clinic of Tehran in 1396-1397, after expressing their willingness to cooperate in the study, were divided into two groups of 20 Separation was treated. In the first group, massage with Corncockle oil, the second group was treated with diclofenac ointment daily for 2 months. Their pain levels were compared with the Visual Analog Scale (VAS), before treatment, 1, 4 weeks, and 8 weeks after treatment with paired t-test.

**Results:** In both groups, there was a significant difference in pain score before and after treatment. The percentage of pain reduction in the group that used the diclofenac black seed oil and diclofenac oil was 40.990 and 40.166.6 respectively ( $P < 0.05$ )

**Conclusion:** The results of this study showed that knee joint massage with black oil is effective in relieving pain in patients with knee osteoarthritis and can be used as an immune supplement to improve pain in knee osteoarthritis patients with pain.

**Keywords:** Corncockle, Pain, Osteoarthritis, Knee

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P2-7

## The Relationship Between Osteoporosis and Osteopenia in Women with Rheumatoid Arthritis in Urmia

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**Aim:** Rheumatoid arthritis is an inflammatory disease of the joints. Osteoporosis is also the most common metabolic bone disease with symptoms of bone loss and bone matrix. The aim of this study was to investigate the relationship between osteoporosis and osteopenia in women with rheumatoid arthritis in Urmia.

**Materials and Methods:** Our statistical population included 4 women with rheumatoid arthritis referred to Imam Khomeini Hospital in Urmia. Sampling was done based on the target selection and DEXA method for adjusted entry and exit factors (DEXA). Bone mineral density was measured in the two lumbar spine and femur (L2-L4) regions.

**Results:** The mean age of the population was  $17.49 \pm 2.1$  years based on BMD of femur, 9.11% of women were osteoporotic and 7.43% were osteopenia. Also according to Lumbar BMD, 19.1% of women were osteoporotic and 8.51% were osteopenia. Menopausal time of women was  $19.01 \pm 1.3$  years and their mean BMD was  $17.62 \pm 1.62$  years. Mean bone mineral density in femoral area was  $19.8 \pm 12.0$  and mean T SCORE was  $68.10 \pm 0.79$  while mean bone mineral density was in the region

**Conclusion:** According to the results, 5% of the studied population had osteoporosis and osteopenia, which are due to various factors of mineral deficiency in nutrition basket or genetic factors that can be used as factors in this study. Use information

**Keywords:** Bone, Rheumatoid Arthritis, Osteoporosis, Osteopenia

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P2-8

## The Relationship Between Superoxide Dismutase Activity and Erythrocyte Glutathione Peroxidase Activity in Patients with Rheumatoid Arthritis

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**Aim:** Rheumatoid arthritis is a systemic disease caused by inflammation of the joints of the organs. In this disease, severe inflammation in the synovial membrane causes changes in the peripheral arteries and causes serious damage to the joints. And glutathione peroxidase are erythrocytes in patients with rheumatoid arthritis.

**Materials and Methods:** Our statistical population included 4 patients with rheumatoid arthritis referred to Imam Khomeini Hospital in Urmia in year 1-5. All blood samples were taken to measure superoxide dismutase function using inhibition rate. The reaction of xanthine and xanthine oxidase and for the measurement of glutathione peroxidase was performed by spectrophotometric assay. Data were analyzed by SPSS v.24 and t-test with a significant level of 0.005.

**Results:** The mean age of the subjects was  $18.1 \pm 47.59$  years. Superoxide dismutase activity was significantly correlated with the number of inflamed joints and increasing age in the patient group ( $OR=0.004=78.8-41.3$   $CL=95$ ). The mean hemoglobin concentration in the patient group was  $12.12$   $69$   $69.12$  and in the control group it was  $16.1$   $49$   $49.13$ , indicating a significant relationship between the disease group and the incidence of disease ( $OR=45.9-9.93$   $CL=0.003$ ). Mean glutathione peroxidase in the patient group was  $17.32$   $3$   $19.773$  and in the control group was  $17.59$   $11$   $11.1929$ , which showed a significant decrease ( $P=00.04$ ). The activity of this enzyme in 1% of patients was between 1100 and 1420 and the concentration of superoxide dismutase was  $77.29$   $12$   $2.1281$  in patients and  $19.36$   $13$   $1.323$  in control group, which showed no significant relationship with disease incidence ( $P>0.005$ ).

**Conclusion:** Based on the results obtained from the functions of superoxide dismutase and glutathione peroxidase in the development of symptoms before rheumatoid arthritis, it can be used as a prognostic factor. However, analysis of other cities in this country is recommended.

**Keywords:** superoxide dismutase, glutathione peroxidase, rheumatoid arthritis

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P2-9

## Relationship Between Catalase Vitamins A and K in the Blood of People with Rheumatoid Arthritis in a Population of West Azerbaijan Province

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**Aim:** Rheumatoid arthritis is the most common systemic inflammatory disease of the joints and is one of the chronic autoimmune diseases. It is more common in women, smokers and people with a positive family history. Vitamin A is one of the fat-soluble vitamins used for proper growth of children. And the function of the immune system and intestinal mucosa is essential. Vitamin K is also one of the calcium-bound vitamins in the body.

**Materials and Methods:** Our statistical population included 3 patients with rheumatoid arthritis referred to Imam Khomeini Hospital of Urmia and 5 patients were divided into healthy groups. For measurement of vitamins A and K by reverse phase HPLC and CRP Biometric immunoassay and cyano-hemoglobin assay and ESR by western blot and catalase measurement based on H<sub>2</sub>O<sub>2</sub> analysis by photomicroscope respectively. Data were analyzed by SPSS v.24 software.

**Results:** Based on the results of the measurements, there was a significant relationship between hematocrit ESR and catalase (CL=95% P=0.03 OR=3.3- 12-9). There was a significant decrease in vitamin K with hematocrit and hemoglobin and a significant decrease in vitamin K with hemoglobin and platelets (P=0.04 OR=4 / 22-8.55 CL=95%). Finally, CRP and RF interparameters were significantly correlated with vitamins A, K and catalase (P=0.05). Mean vitamin A concentration in the patient group was 1.4 19 19.24 dg / mg and in the control group. 35/19 2/17 dB g mg, the reduction is the concentration in the patient group (P0.03).

**Conclusion:** According to the results, patients with rheumatoid arthritis have significantly reduced vitamins A and K and catalase compared to the control group, which can be used as a prognostic factor.

**Keywords:** Vitamin A, Vitamin K, Rheumatoid Arthritis

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**P2-10**

## **Evaluation of Quality of Life and Self-care in Patients with Rheumatoid Arthritis Referring to Ayatollah Golpayegani Hospital in Qom 2016**

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**Introduction:** Rheumatoid arthritis is an autoimmune inflammatory disease that causes joint destruction and disability. People with this disease are at risk of falling quality of life. A key factor in successful management of rheumatoid arthritis is proper self-care behavior. The aim of this study was to evaluate self-care behaviors and life expectancy in Patient with rheumatoid arthritis in Qom.

**Materials and Methods:** This cross-sectional study was performed on 200 Patient with rheumatoid arthritis referred to rheumatology clinic in Qom. The questionnaire's toolkit included quality of life structures (SF-20), and self-care behaviors that were completed through interviews. Data were analyzed using SPSS-19 software.

**Results:** The mean age was 48.3±10.3 and 77% women and 23% were men. Correlation between self-care and quality of life showed a significant negative correlation with the age of the patients and there was a significant positive correlation between self-care and quality of life, and the higher the rate of self-care, the quality of life of the patients was also more favorable (P<0.001, r=0.583).

**Conclusion:** According to the findings of this research, the variables of self-care behaviors are indirectly on the quality of life of patients with rheumatoid arthritis. Better identification of the predictive factors for the quality of life of patients with rheumatoid arthritis is essential for effective health interventions in order to improve the quality of life of these patients.

**Keywords:** Arthritis Rheumatoid; Quality of Life; Self care.

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P2-11

## Evaluation of Frequency of Types of Rheumatologic Manifestations and Their Relationship with Blood Glucose Control in Patients with Type II Diabetes

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**Aim:** Musculoskeletal disorders in diabetic patients are associated with pain and disability and thus a significant reduction in quality of life. The current research was conducted with the aim of evaluating the frequency of rheumatologic manifestations and its association with blood glucose level in diabetic patients.

**Methods:** In this cross-sectional study, a total of 273 patients with type 2 diabetes referred to the diabetes clinic were selected by using census method. Using the checklist, demographic and clinical data including duration of diabetes, blood glucose level, HbA1c, type of diabetes, BMI, smoking, blood pressure, serum cholesterol level, triglyceride, HDL, LDL, and musculoskeletal disorder type were analyzed through SPSS20 software by using independent t-test. Modeling was performed to obtain the best fit using logistic regression. The significance level was considered less than 0.05.

**Results:** 62.6% of patients had at least one of the rheumatologic complications. The most common complication was related to carpal tunnel syndrome (26.4%), followed by muscle contraction (23.8%). By moderating the effect of other variables, the odds ratio for rheumatoid complications was 1.74 with one unit of increase in HBA1C, which was statistically significant. In examining the influential variables, high age, gender, smoking, and BMI showed statistically significant effect ( $p < 0.001$ ).

**Conclusion:** Given the high prevalence of musculoskeletal disorders in diabetic patients, early diagnosis and timely treatment of its complications are crucial. It is recommended that musculoskeletal examinations to be included as an important part of periodic care in these patients.

**Keywords:** Musculoskeletal Disorder, Type II Diabetes, HBA1C, Glycemic Control, Rafsanjan

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P2-12

## Multiple Organ Involvements in a Case of IgG4 Related Disease

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IgG4-RD encompasses a variety of clinical and pathological entities previously considered as separate diseases. It is a newly recognized fibroinflammatory disease by multiple features including mass forming lesion; a dense lymphoplasmacytic infiltrate; a characteristic histopathological appearance and often elevated serum of IgG4.

The aim of this article is to report a 64-year-old woman with left eye proptosis (29 mm) and no light perception. Computed tomography showed mass infiltration to left carotid sheath and mandibular foramen. Further there was an increase in hepatic vascularity and peri-portal infiltration predominantly in the left lobe that causes intra-hepatic duct dilation. Probably due to limited knowledge about IgG4-RD, the patient did not receive the appropriate treatment and unfortunately end in significant reduction in the visual acuity (no light perception). Finally, pathology and IHC study revealed presence of CD20<sup>+</sup> plasma cell up to 60% per high power field. In Conclusion patients with chronic tumor like lesions and pseudo tumors without evidence of malignancy, IgG4 related disease should be considered. Biopsy can lead to the definitive diagnosis.

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**P2-13****Multiple Myeloma in a Patient with Sarcoidosis and Heavy Proteinuria: a Case Report****Behzad Asanjrani<sup>1</sup>, Esmat Abdollahpour<sup>2</sup>, Samira Alesaeidi<sup>3\*</sup>, Hamed Zainaldain<sup>4</sup>**

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Sarcoidosis is a systemic Granulomatous disease mainly in adults which usually affect mediastinal lymph nodes, lungs, skin, eyes and rarely skeletal system. There is well known association of Sarcoidosis with non-Hodgkin lymphoma but its association with multiple myeloma is rare. Since of some common musculoskeletal signs, it is difficult to differentiate unless by pathology. Here we report a 44 year old woman with a history of 6 years of Sarcoidosis presenting with bone pain in spinal vertebrae, ribs, pelvis, pitting edema over the legs, normochromic and normocytic anemia (Hb: 9.3), Erythrocyte sedimentation rate of 110 and proteinuria more than 3 g/day during her routine follow-up. Skeletal survey showed multiple lytic lesions in her skull, ribs, vertebrae and iliac bone. Further survey by bone marrow aspiration/biopsy confirmed multiple myeloma. With the consider to other case reports like this, it is important to think of multiple myeloma in Sarcoidosis patients specially with chronic musculoskeletal complaints or proteinuria in follow ups.

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P2-14

## Study of Quality of Life in Rheumatoid Arthritis Patients Referred in Educational Hospitals in Urmia

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**Aim:** Rheumatoid arthritis (RA) is the most common form of inflammatory arthritis affecting nearly one in 100 adults. Rheumatoid arthritis (RA) is a chronic disease, which has a detrimental effect on many areas of life, including physical, psychological and social functioning. The ultimate aim of any therapeutic intervention in patients with RA is to achieve a better overall quality of life (QoL). Although the importance of QoL is broadly acknowledged, there is no consensus about how it should be measured. This study concerns the use of the Rheumatoid Arthritis Quality of Life Questionnaire (RAQoL) in routine clinical practice to assess the specific quality-of-life needs of individual patients and to monitor the outcome of care for patient groups.

**Methods:** The Rheumatoid Arthritis Quality of Life (RAQoL) questionnaire was applied to two groups consisting of 40 patients with RA, one group with increasing difficulty in performing activities of daily living and one group with stable disease. The following data were recorded at baseline: sex, age, and disease duration, status of living (living alone or living with a partner) and level of education. The associations between the RAQoL and measures of utility, QoL, functional status and disease activity were evaluated. Factor analysis was carried out to investigate if one or more QoL dimensions could be distinguished within this questionnaire.

**Results:** Similar results regarding the association between the RAQoL and different sets of outcome measures were found in the two groups of patients. Regression analysis showed that about 75% of the variance of the RAQoL could be explained with variables of QoL, functional status and disease activity. Physical contact could be distinguished as a separate dimension within the RAQoL, in addition to the dimensions mobility/ energy, self-care and mood/emotion. In two groups, QOL situation were not as well as healthy people, but there is a significant relationship between QOL with severity of disease.

**Conclusion:** The RAQoL is a valid instrument for measuring QoL in different populations of patients with RA. Physical contact, a dimension that is not covered by other common instruments in RA, could be distinguished as a separate dimension within the questionnaire.

**Keywords:** Rheumatoid arthritis, Quality of life, Validation, Outcome measurement.

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**P2-15****The Effect of Self-Care Education on Rheumatoid Arthritis Patients by Nurses Working in Public Hospitals in Tehran****Mohammad Arabsorkhi Mishabi, Esmaeil Teymoori, Dorrin Nikbakht***Graduate Student, Operating Room, Student Research Committee, Faculty of Paramedicine, Iran University of Medical Sciences, Tehran, Iran*

**Introduction:** Rheumatoid arthritis is a type of chronic inflammatory polyarthritis that begins as inflammatory periods in the joints. It has a significant impact on patients' lives. Nursing education is an important factor in the control and self-care of these patients. The purpose of this study was to investigate the effect of self-care education on rheumatoid arthritis patients by nurses working in public hospitals in Tehran.

**Methods:** This is a systematic review study. In this study, validated scientific articles indexed in ISI, PubMed, Scopus, Sid, Magiran databases were searched using keywords ((Self-Care, Education, Rheumatoid Arthritis)). The time range from 2013 to 2019 was considered for selecting articles. There were 100 articles, of which 67 were entered into the study, and then the articles were reviewed for title, abstract, and full text and after excluding duplicate and unrelated cases, 33 related articles were selected.

**Results:** According to the studies, the mean of knowledge, attitude, and self-care were %71/7, %66/9, and %47/5 respectively. There was a significant positive relationship between education and self-care in rheumatoid arthritis patients ( $P < 0.01$ ).

**Conclusion:** Nurses' self-care education of rheumatoid arthritis patients led to an increase in their self-efficacy behaviors. Therefore, it is recommended to use such educational programs in hospitals and medical centers for patients with rheumatoid arthritis.

**Keywords:** Self Care, Education, Rheumatoid Arthritis

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P2-16

## Jugular Vein Thrombosis after Dental Extraction from Lemierre's Disease to Behçet Disease

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**Aim:** Dose dental extraction cause Behçet flare up?

**Method:** In this report, we describe a jugular vein thrombosis after extracting of molar teeth in a patient who subsequently diagnosed as a Behçet disease and then review the literature.

**Results:** A male patient who presented with dyspnea, lightheadness, plethoric facies, neck swelling and swollen collateral veins on the front of the chest wall after extracting his molar teeth due to dental caries and tooth pain. Right internal jugular vein thrombosis was seen on the neck CT angiography. Lemierre's disease was suspected and systemic antibiotics in addition to anticoagulant was started. Two months later the patient presented with characteristic genital and oral aphthous ulcers. On the revised history taking, he admitted recurrent and longstanding history of prior aphthous ulcers for 5 years. There was also folliculitis on the chest and cutaneous nodules in the forearms. Based on the International Criteria for Behçet's Disease a final diagnosis of Behçet vasculitis was made and the patient received high dose of immunosuppressive therapy.

**Conclusion:** Dental extraction in Behçet disease may cause the disease flare up and large vessel thrombosis. Curious history about aphthous and other Behçet's criteria should be taken in any patient with unusual thrombosis.

**Keywords:** Behçet disease; Lemierre's disease; Jugular vein thrombosis; Dental extraction

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**P2-17**

## Using a Biodegradable Scaffold Confirmed the Possible Physiological Role of COX in Articular Cartilage

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**Aim:** Prostaglandins are highly conserved molecules, which are generated enzymatically from arachidonic acid in the cell membrane by the action of cyclooxygenases. Actually known are two isoenzymes of cyclooxygenases: the cyclooxygenase-1 (COX-1) which is constitutively expressed in almost all tissues and the cyclooxygenase-2 (COX-2) – which is stimulated under different pathophysiological conditions (e.g. in inflammation), but also during ontogenesis. Since cyclooxygenases are responsible for the PGE<sub>2</sub> release from chondrocytes, this study aimed to confirm the effects of cyclooxygenases in promotion of chondrocyte proliferation in the setting of tissue engineering of cartilage.

**Methods:** For this study mesenchymal stem cell seeded on a biodegradable scaffold was used according to the previous author publications which simulate the structural properties of native articular cartilage. Immunohistochemical analysis was done for detection of COX-1 and COX-2.

**Results:** Immunohistochemical analysis showed that strong expression of COX-1 but not COX-2 comparable with cells in the reserve zone of the growth plate.

**Conclusion:** It is concluded that the proliferation of growth plate chondrocytes could be blocked by COX inhibitors with the greatest effects by use of selective COX-2 inhibitors, indicating the functional importance of COX-2 in chondrocyte proliferation. taken together, cyclooxygenases may be a potential target to optimize proliferation of cells in scaffold materials.

**Keywords:** Cartilage, COX-1, COX-2, Scaffold

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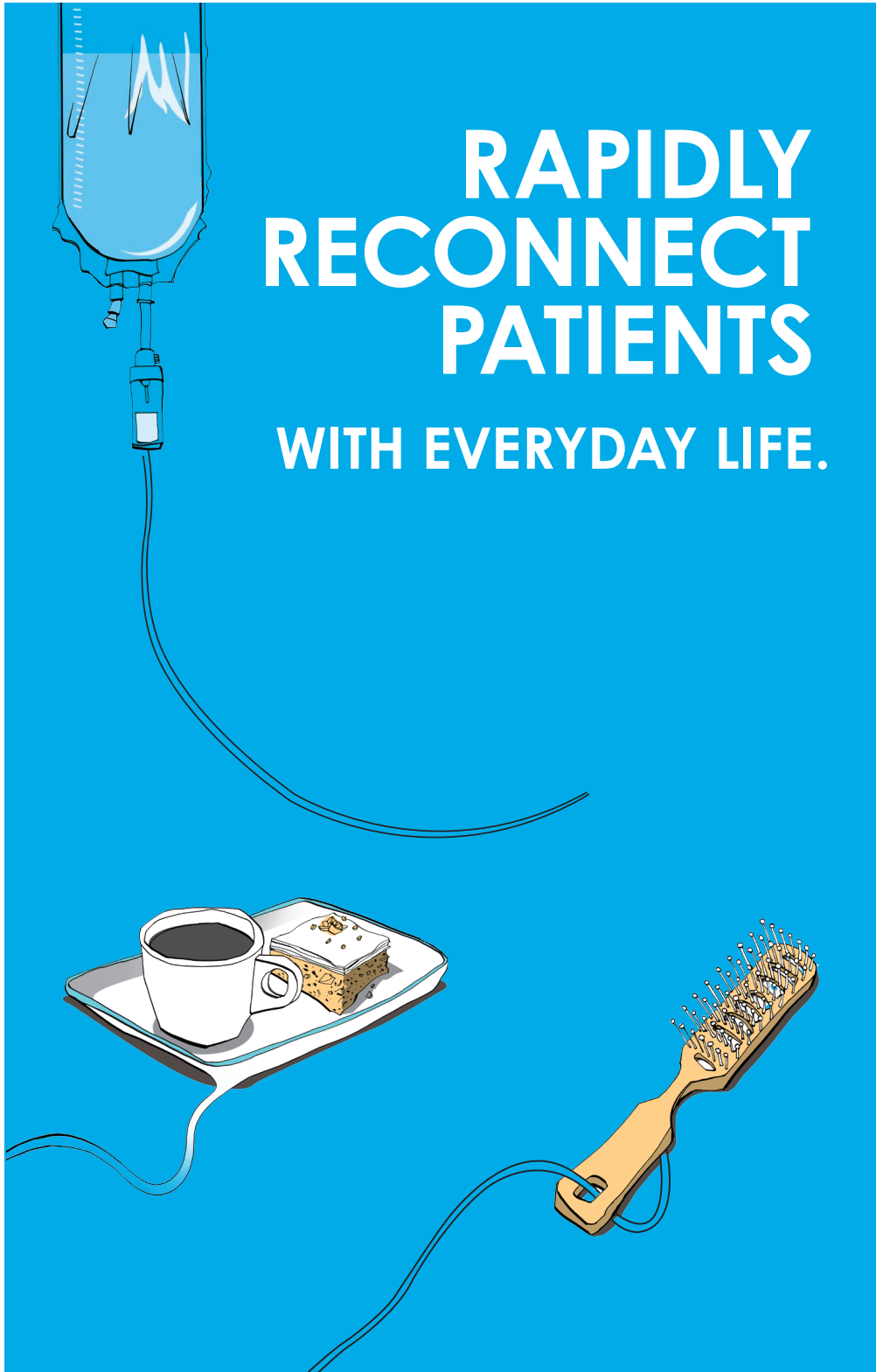
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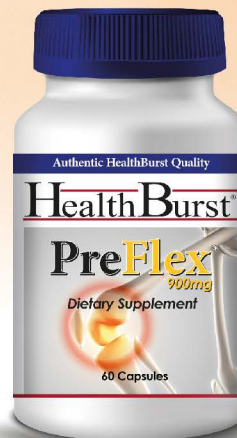
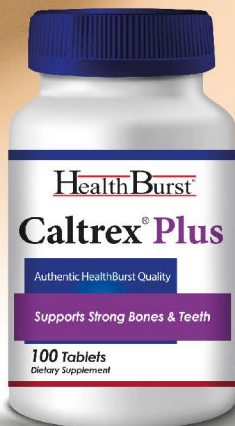
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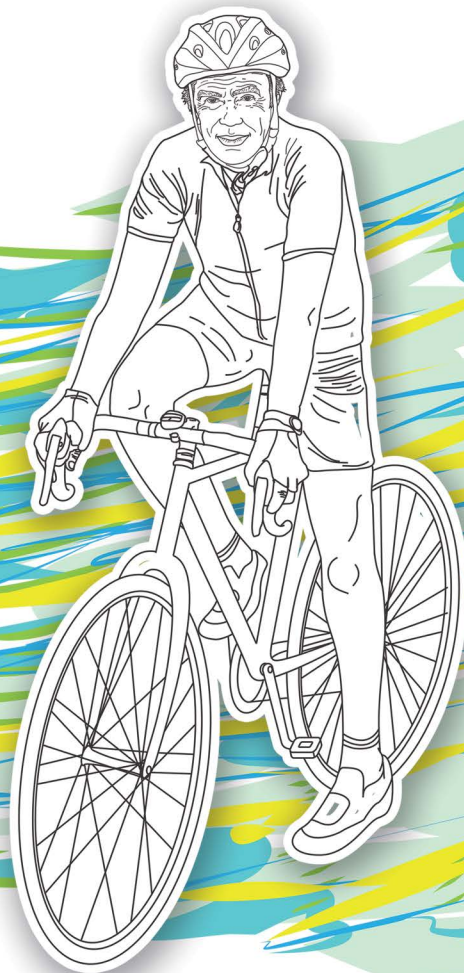
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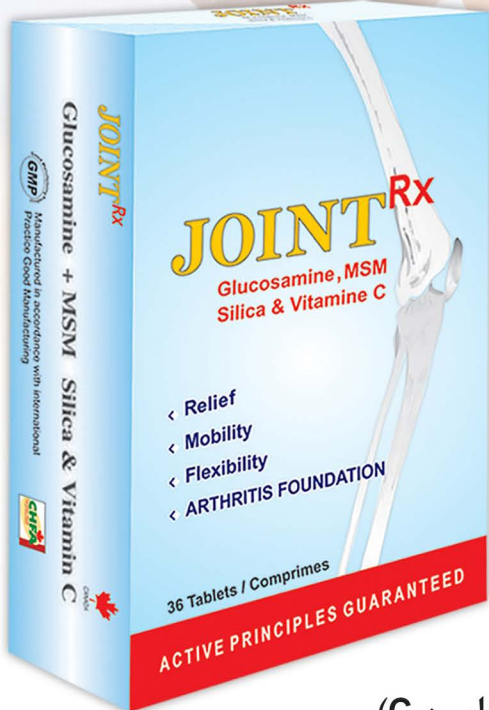
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