10th Annual Congress and 2nd International Congress of Iranian Rheumatology Association

ABSTRACT BOOK

18th–21th October 2016
Tehran, Iran
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WELCOME MESSAGE

In The Name of Allah

Dear Members and Colleagues:

On behalf of Iranian Rheumatology Association (IRA), I would like to express our heartfelt gratitude to all of the participants at the 10th Annual Congress and 2nd International Congress of Iranian Rheumatology Association in Tehran. The meeting program includes 1 special lectures, and 8 scientific sessions including important challenging topics of Rheumatology which is conducted by Rheumatologist and related specialist from Iran and other counties. We have one pre-congress workshop on Journalism with 3 intensive workshops on Ultrasound, Ultrasound guided joint injection and Densitometry. We are proud to say that for the second time in our congress we have a "patient Education session" on Ankylosing Spondylitis.

Leading experts and scientists will be joining us in Tehran and the Scientific Committee is compiling an attractive program to bring you all the latest clinical developments and cutting-edge translational science in the rapidly developing field of Rheumatology.

We expect many of you will participate in active discussion throughout these meetings. Your participation and subsequent ideas and results will lay the foundation for the future of advances in the study and treatment of Rheumatic diseases.

We wish all participants a gratifying stay in Tehran and would be quite pleased if you could thoroughly enjoy Tehran.

Professor Ahmadreza Jamshidi
President of Iranian Rheumatology Association
President of the 10th Annual Congress of Iranian Rheumatology Association
COMMITTEES

Congress President: Ahmadreza Jamshidi (Iran) - Rheumatology
Secretary: Anousheh Haghighi (Iran) - Rheumatology

SCIENTIFIC COMMITTEE

Gholamhossein Alishiri (Iran) - Rheumatology
Arman Ahmadzadeh (Iran) - Rheumatology
Mahmoud Akbarian (Iran) - Rheumatology
Yahya Aghighi (Iran) - Pediatric Rheumatology
Arvind Chopra (India) - Rheumatology
Mohammad Mahdi Emam (Iran) - Rheumatology
Seyed Tahereh Faezi (Iran) - Rheumatology
Faraneh Farsad (Iran) - Rheumatology
Saeed Fatehnejad (USA) - Rheumatology
Jafar Forghanizadeh (USA) - Rheumatology
Ali Javadzadeh (Iran) - Rheumatology
Abdolhadi Nadji (Iran) - Rheumatology
Fereydoun Davatchi (Iran) - Rheumatology
Farhad Gharib Doost (Iran) - Rheumatology
Asghar Hajiabbasi (Iran) - Rheumatology
Behnam Molavi (Iran) - Vascular surgery
Mohammadhossein Moradinejad (Iran) - Pediatric - Rheumatology
Niaz Mohammadzadeh (Iran) - Nutrition
Shahriar Nafissi (Iran) - Neurology
Mohammadali Nazarinia (Iran) - Rheumatology
Mohammadhossein Pourgharib (Iran) - Sports and Exercise
Alireza Rajaei (Iran) - Rheumatology
Reza Raeiskarami (Iran) - Pediatric Rheumatology
Abdolrahman Rostamian (Iran) - Rheumatology
Farhad Salehzadeh (Iran) - Pediatric Rheumatology
Ahmad Salimzadeh (Iran) - Rheumatology
Mohammadreza Shakibi (Iran) - Rheumatology
Zhaleh Shariati Sarabi (Iran) - Rheumatology
Sousan Soroush (Iran) - Rheumatology
Mohsen Soroush (Iran) - Rheumatology
Reza Shiari (Iran) - Pediatric - Rheumatology
Fatemeh Shirani (Iran) - Rheumatology
Mohammadreza Sohrabi (Iran) - Community medicine
Hamid Shokouhi (USA) - emergency medicine
Babak Zamani (Iran) - Neurology
Vahid Ziaee (Iran) - Pediatric - Rheumatology

ORGANIZING COMMITTEE

Seyedeh Tahereh Faezi M.D.
Anousheh Haghighi M.D.

Mohsen Soroush M.D.
Marjan Khademian
ACCESS MAP
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<table>
<thead>
<tr>
<th>Time</th>
<th>Tuesday, Oct 18</th>
<th>Wednesday, Oct 19</th>
<th>Thursday, Oct 20</th>
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<tbody>
<tr>
<td>7:00 AM</td>
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| 8:00 AM | Workshop – Journalism  
Dr. Shahin Akhondzadeh | Scientific Program – Journalism  
Dr. Jafar Forghanizadeh, Dr. Anousheh Haghighi, Dr. Nahid kianmehr, Dr. Hamid Shokouhi | Scientific Program – New concepts in treatment of osteoporosis  
Chair: Dr. Hadi Karimzadeh  
Lecturer: Dr. Feizyedoun Davatchi  
[8:00-8:45] Panel for Questions and Answers [8:45-9:00] | Session 8 – Rheumatoid Arthritis (RA)  
Co-Chairs: Dr. Jafar Forghanizadeh, Dr. Saeed Fatenejad, Dr. Arman Ahmadzadeh, Dr. Saeedreza Mehrpour  
S9-1: [8:00-8:20] New concepts in pathogenesis of Rheumatoid Arthritis [Dr. saeed Fatenejad]  
S9-2: [8:20-8:40] Preclinical and early Rheumatoid Arthritis [Dr. Jafar Forghanizadeh]  
S9-3: [8:40-9:10] Updates on treatment of Rheumatoid Arthritis [Dr. Arman Ahmadzadeh]  
S9-4: [9:10-9:30] Surgical procedures in patients with RA [Dr. Saeedreza Mehrpour]  
Panel for Questions and Answers [9:30-10:30] |
| 9:00 AM | Parkham Hall | Musculoskeletal Ultrasonography Workshop  
Dr. Jafar Forghanizadeh, Dr. Anousheh Haghighi, Dr. Nahid kianmehr, Dr. Hamid Shokouhi | Annual Meeting of Iranian Rheumatology Association |            |
| 10:00 AM |              | Scientific Session 1: Inflammatory myopathies  
Co-Chairs: Dr. Abdolhadi Naji, Dr. Asghar Hajjabasi, Dr. mohammadreza Shokib  
S1-1: [8:30-8:50] Diagnosis & differential diagnosis of inflammatory myopathies [Dr. Asghar Hajjabasi]  
S1-2: [8:50-9:10] New concepts in treatment of inflammatory myopathies [Dr. mohammadreza Shokib]  
Co-Chairs: Dr. Mohammad mahdi Emam, Dr.Babak Zaman, Dr.Sahyri Nafissi  
S6-1: [09:00-09:20] Practical EMG for rheumatologist [Dr. Babak Zaman]  
S6-2: [09:20-09:40] Approach to peripheral nerve involvement in rheumatic disease - [Dr. Sahyri Nafissi]  
Panel for Questions and Answers [9:45-10:00] |               |
| 11:00 AM |              | Scientific Session 2 - Oral Presentations  
Co-Chairs: Dr. Nahid Kianmehr, Dr. Mohammdaeza Sohrabi, Dr. Fatemeh Shirani  
[7 presentations - each presentation 10 minutes] | Scientific Session 9 - Ankylosing Spondylitis (AS)  
Co-Chairs: Dr. Zhaleh Shariati Sarabi, Dr. Ali Javadzadeh, Dr.Arvind Chopra,  
S9-1: [11:00-11:20] Updates on treatment of psoriatic arthritis [Zhaleh Shariati Sarabi]  
S9-3: [11:40-12:00] Nonradiologic spondylarthrits [Dr. Ali Javadzadeh]  
Panel for Questions and Answers [12:00-13:00] |               |
<p>| 12:00 PM |              |                      |                  |                |
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| 14:00 | Scientific Session 4 – Digital ischemia in Rheumatology  
Co-Chairs: Dr. Farhad Gharibdoust, Dr. Amir Pezhman Hashemi, Dr. Behnam Molavi, Dr. Faraheh Farsad, Dr. Hoda Kavousi, Dr. Anousheh Haghighi  
S4-1: (14:00-14:20) Vascular physiology - Dr. Faraheh Farsad  
S4-2: (14:20-14:40) Diagnosis and treatment of digital ischemia due to vasculopathy - Dr. Hoda Kavousi  
S4-3: (14:40-15:00) Diagnosis and treatment of digital ischemia due to vasculitis - Dr. Anousheh Haghighi  
Panel for Questions and Answers (15:00-16:00) |
| 16:00 | Ultrasound Guided Joint Injection Workshop: Dr. Jafar Forghanizadeh, Dr. Anousheh Haghighi, Dr. Hamid Shokouhi |
| 17:00 | Coffee Break |
| 18:00 | Ultrasound Guided Joint Injection Workshop: Dr. Jafar Forghanizadeh, Dr. Anousheh Haghighi, Dr. Hamid Shokouhi |

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Co-Chairs: Dr. Reza Raeis Karami, Dr. Yahya Aghighi, Dr. Farhad Salehzadeh, Dr. Reza Shiri, Dr. Mohammadhossein Moradnejad, Dr. Vahid Ziaee  
S7-1: (14:00-14:20) Clinical manifestations of pediatric and adolescent lupus (Dr. Farhad Salehzadeh)  
S7-2: (14:20-14:40) Management of pediatric and adolescent lupus (Dr. Reza Shiri)  
S7-3: (14:40-15:00) Neonatal lupus and related conditions (Dr. Vahid Ziaee)  
Panel for Questions and Answers (15:00-16:00) |
| 16:00 | Ultrasound Guided Joint Injection Workshop: Dr. Jafar Forghanizadeh, Dr. Anousheh Haghighi, Dr. Hamid Shokouhi |
| 17:00 | Densitometry Workshop: Dr. Alireza Rajaee |
| 18:00 | Patients Education Session: AS  
Chair: Dr. Ahmadreza Jamshidi  
E1-1: (16:00-16:20) Diet in AS - Dr. Niaz Mohammadzadeh  
E1-2: (16:20-16:40) Exercise in AS - Dr. Mohammadhossein PourGHarb  
E1-3: (16:40-17:00) Drugs in AS - Dr. Mohsen Sarowsh  
Panel for Questions and Answers (17:00-18:20) |

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Panel for Questions and Answers (17:00-18:20) |
**SCIENTIFIC PROGRAM**

**Wednesday, October 19**

7:00-8:00  Registration
8:00-8:30  Opening Ceremony
8:30-9:50  Scientific Session 1 - Inflammatory myopathies

- **Co-chairs**: Dr. Abdolhadi Naji, Dr. Asghar Hajiabbasi, Dr. mohammadreza Shakibi
- **Dr. Abdolhadi Nadi**
  *Professor of Rheumatology, Rheumatology Research Center, Tehran University of Medical Science, Iran*

  **S1-1 Diagnosis & differential diagnosis of inflammatory myopathies**
  - **Dr. Asghar Hajiabbasi**
    *Guilan Rheumatology Research Centr, Department of Rheumatology, Razi Hospital, School of Medicine, Guilan University of Medical Sciences, Rasht, Iran*

  **S1-2 New concepts in treatment of inflammatory myopathies**
  - **Dr. mohammadreza Shakibi**
    *Associate Professor of Rheumatology, Kerman University of Medical Science, Iran*

  **S1-3 Panel for Questions and Answers**

9:50-11:00  Scientific Session 2 - Oral Presentations

- **Co-chairs**: Dr. Fatemeh Shira, Dr. Nahid Kianmehr, Dr. Mohammadreza Sohrabi
- **Dr Fatemeh Shirani**
  *Assistant Professor of Rheumatology, Iran University of Medical Science, Iran*
- **Dr. Nahid Kianmehr**
  *Associate Professor of Rheumatology, Iran University of Medical Science, Iran*
- **Dr. Mohammadreza Sohrabi**
  *Professor of community medicine, School of medicine, Shahid Beheshty University of medical sciences, Iran*

  **S2-1 Short-Term Efficacy of Intra-articular Injection of Platelet-Rich Plasma (PRP) Compared with Placebo in Patients with Osteoarthritis of the Knee**
  - **Alireza Sadeghi**
    *Rheumatologist, Internal Medicine Department, Zanjan University of Medical Sciences, Zanjan, Iran*

  **S2-2 Effect of Atorvastatin on the Disease Activity and Severity of Rheumatoid Arthritis: Double-Blind Randomized Controlled Trial**
  - **Dr. Elham rajai**
    *Assistant Professor, Department of Internal Medicine, Ahvaz Jundishapur University of Medical Science, Ahvaz, Iran*

  **S2-3 Valproic Acid enhances the anti-inflammatory immune response through alternative activation of monocyte-derived macrophages in Systemic Lupus Erythmatosous**
  - **Saeed Mohammadi**
    *Student Research Committee, Department of Molecular Medicine, School of Advanced Technologies in Medicine, Golestan University of Medical Sciences, Gorgan, Iran*
S2-4 Biologically-Based Approach to Evaluate Classification Criteria for Chronic Childhood Arthritis  
Dr. Elham Rezaei  
University of Saskatchewan, Health and Sciences  

S2-5 Cyclosporine A in the Treatment of Refractory Proliferative Lupus Nephritis  
Dr. Alireza Khabbazi:  
Connective Tissue Diseases Research Center, Tabriz University of Medical Sciences, Tabriz, Iran  

S2-6 Prevalence of Rheumatic Disorder in Chemical Warfare Patients  
Dr. Gholam Hossein Alishiri  
Department of Rheumatology, faculty of medicine, Baqiyatallah hospital research development committee, and Baqiyatallah University of medical sciences  

S2-7 Correlation between six minute walk test and plasma proBNP level with echocardiographic findings of pulmonary hypertension in patients with systemic lupus erythematosus  
Dr. Zahra Mirfeizi  
Rheumatic Diseases Research Center, School of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran  

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

11:30-13:00 Scientific Session 3 - Lupus Nephritis  
Co-Chairs: Dr. Mahmoud Akbarian, Dr. Monir Sadat Hakemi, Dr. Seyede Tahereh Faezi  
Dr. Mahmoud Akbarian  
Professor of Rheumatology, Rheumatology Research Center, Tehran University of Medical Science, Iran  

S3-1 Diagnosis of lupus nephritis  
Dr. Monir sadat Hakemi  
Associate professor of nephrology, Tehran University of Medical Science, Iran  

S3-2 New concepts in treatment of lupus nephritis  
Dr. Seyede Tahereh Faezi  
Associate Professor of Rheumatology, Rheumatology Research Center, Tehran University of Medical Science, Iran  

S3-3 Panel for Questions and Answers  

13:00-14:00 Prayers and Lunch Break  

14:00-16:00 Scientific Session 4 – Digital ischemia in Rheumatology  
Co-Chairs: Dr. Farhad Gharibdoust, Dr. Amir Pezhman Hashemi, Dr.Behnam Molavi, Dr. Faraneh Farsad, Dr. Hoda Kavousi, Dr. Anousheh Hagighi  
Frahad Gharibdoust  
Professor of Rheumatology, Department of Rheumatology, Tehran University of Medical Sciences, Iran  

Dr. Amir Pezhman Hashemi  
Assistant Professor of Radiology, Tehran University of Medical Sciences, Tehran, Iran  

S4-1 Vascular physiology  
Dr. Faraneh Farsad  
Assistant Professor of Rheumatology, Shahid beheshti University of Medical Sciences, Tehran, Iran  

S4-2 Diagnosis and treatment of digital ischemia due to vasculopathy  
Dr. Hoda Kavousi  
Assistant Professor of Rheumatology, Rheumatology research center, Tehran University of Medical Sciences, Iran
S4-3 Diagnosis and treatment of digital ischemia due to vasculitis

Dr. anousheh Haghighi
Associate Professor of Rheumatology, Iran University of Medical Science, Iran

S4-4 Panel for Questions and Answer

16:00-18:00 Ultrasound Guided Joint Injection Workshop

Dr. Jafar Forghanizadeh, Dr. Anousheh Haghighi\textsuperscript{1}, Dr. Nahid Kianmehr\textsuperscript{2}, Dr. Hamid Shokouhi\textsuperscript{3}

Dr. Jafar Forghanizadeh
Emeritus Professor of Rheumatology

\textsuperscript{1} Associate Professor of Rheumatology, Iran University of Medical Sciences

\textsuperscript{2} Associate Professor of Rheumatology, Iran University of Medical Sciences, Iran

\textsuperscript{3} Associate Professor of emergency medicine at the George Washington University
Thursday, October 20

8:00-9:00  Special lecture: New concepts in treatment of osteoporosis  
   Chair: Dr. Hadi Karimzade  
   Associate Professor of Rheumatology, Isfahan University of Medical Sciences, Iran  
   Lecturer: Dr. Fereydon Davatchi  
   Emeritus Professor of Rheumatology, Rheumatology Research Center, Tehran University of Medical Science, Iran  

Panel for Questions and Answers

9:00-10:30  Scientific Session 6 - Peripheral polyneuropathy in rheumatic diseases  
   Co-Chairs: Dr. Mohammad Mahdi Emam, Dr. Babak Zamani, Dr. Shahryar Nafisi  
   S6-1 Practical EMG for rheumatologist  
      Dr. Babak Zamani  
      Assistant professor of neurology, Iran University of Medical Sciences  
   S6-2 Approach to peripheral nerve involvement in rheumatic disease  
      Dr. Shahriar Nafissi  
      Associate Professor of neurology, Iran University of Medical Sciences, Iran  
   S6-3 Autonomic nerve involvement in rheumatic disease  
      Dr. Mohammad Mahdi Emam  
      Assistant Professor of Rheumatology, Shahid Beheshti University of Medical Sciences, Iran

S6-4 Panel for Questions and Answers

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

11:00-13:00  Annual Meeting of Iranian Rheumatology Association

13:00-14:00  Prayers and Lunch Break

14:00-16:00  Scientific Session 7: Pediatric Rheumatology (New concepts in diagnosis & management of lupus)  
   Co-Chairs: Dr. Reza Raei Karami, Dr. Yahya Aghighi, Dr. Farhad Salehzadeh, Dr. Reza Shiri, Dr. Mohammadhossein Moradinejad, Dr. Vahid Ziaee  
   Dr. Seyedreza Raeiskrami  
   Assistant Professor of Pediatric Rheumatology, Tehran University of Medical Sciences, Iran  
   Dr. Yahya Aghighi  
   Professor Of Pediatrics, Tehran University Medical Sciences, Iran  
   Dr. Mohammadhossein Moradinejad  
   Associate Professor Of Pediatrics, Tehran University Medical Sciences, Iran  
   S7-1 Clinical manifestations of pediatric and adolescent lupus  
      Dr. Farhad Salehzade  
      Assistant Professor of Pediatric Rheumatology, Tehran University of Medical Sciences, Iran  
   S7-2 Management of pediatric and adolescent lupus  
      Dr. Reza Shiri  
      Associate Professor of Pediatric Rheumatology, Shahid Beheshti University of Medical Sciences, Iran  
   S7-3 Neonatal lupus and related conditions  
      Dr. Vahid Ziaee  
      Assistant Professor of Pediatric Rheumatology, Tehran University of Medical Sciences, Iran

S7-4 Panel for Questions and Answers

16:00-16:20  Coffee Break
16:20-18:20  **Patients Education Session: AS**

**Chair:** Dr. Ahmadreza Jamshidi  
*Professor of Rheumatology, Rheumatology Research Center, Tehran University of Medical Sciences, Iran*

**E1-1 Diet in AS**

*Dr. Niaz Mohammadzadeh*  
*Assistant Professor of Nutrition, Faculty of Nutrition Sciences and Dietetics, Tehran University of Medical Sciences, Iran*

**E1-2 Exercise in AS**

*Dr. Mohammad Hossein PourGharib*  
*Assistant Professor of Sports and Exercise, Tehran University of Medical Sciences, Iran*

**E1-3 Drugs in AS**

*Dr Mohsen Soroush*  
*Assistant professor of Rheumatology, Department Of Rheumatology, Aja university of medical sciences, Tehran, Iran*

**E1-4 Panel for Questions and Answers**

16:20-18:20  **Densitometry Workshop**

*Dr. Alireza Rajaei*  
*Associate Professor of Rheumatology, Shahid Beheshti University of Medical Sciences, Iran*

16:00-18:00  **Ultrasound Guided Joint Injection Workshop**

*Dr. Jafar Forghanizadeh¹, Dr. Anousheh Haghighi², Dr. Nahid Kianmehr³, Dr. Hamid Shokouhi⁴*  
¹ *Emeritus Professor of Rheumatology, USA*  
² *Associate Professor of Rheumatology, Iran University of Medical Science, Iran*  
³ *Associate Professor of Rheumatology, Iran University of Medical Science, Iran*  
⁴ *Associate Professor of emergency medicine at the George Washington University, USA*
Friday, October 21

8:00-10:30  **Session 8 – Rheumatoid Arthritis (RA)**
**Co-Chairs:** Dr. Jafar Forghanizadeh, Dr. Saeed Fatehnejad, Dr. Arman Ahmadzadeh, Dr. Saeedreza Mehrpour

- **S9-1** New concepts in pathogenesis of Rheumatoid Arthritis
  Dr. Saeed Fatehnejad
  *Chief Executive Officer of SFC Medica company, Florida, USA*

- **S9-2** Preclinical and early Rheumatoid Arthritis
  Dr. Jafar Forghanizadeh
  *Emeritus Professor of Rheumatology, USA*

- **S9-3** Updates on treatment of Rheumatoid Arthritis
  Dr. Arman Ahmadzadeh
  *Assistant Professor of Rheumatology, Rheumatology Ward, Loghman hakim Hospital SBMD*

- **S9-4** Surgical procedures in patients with RA
  Dr. Saeedreza Mehrpour
  *Associate professor of ortopedi, Tehran University of Medical Sciences, Iran*

10:30-11:00  **Panel for Questions and Answers**

10:30-11:00  **Coffee Break**

10:30-11:00  **Scientific Session 9 - Ankylosing Spondylitis (AS)**
**Co-Chairs:** Dr. Zhaleh Shariati Sarabi, Dr. Ali Javadzadeh, Dr. Arvind Chopra

- **S9-1** Updates on treatment of psoriatic arthritis
  Dr. Zhaleh Shariati Sarabi
  *Rheumatic Diseases Research Center, School of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran*

- **S9-2** Updates on treatment of ankylosing spondylitis
  Dr. Arvind Chopra
  *Professor of Rheumatology, Center for Rheumatic Disease, Pune, India*

- **S9-3** Nonradiologic spondylarthritis
  Dr. Ali Javadzadeh
  *Assistant Professor of Rheumatology, Iran University of Medical Sciences, Iran*

12:00-13:00  **Panel for Questions and Answers**
POSTER PRESENTATIONS

Wednesday, October 19

P1-1 Study of P396S and R408Q Mutations of the MEFV Gene in Henoch Schonlein Purpura from Iranian Azeri Turkish Ethnic Group
Mahdieh Younesi1, Mortaza Bonyadi2, Mandana Rafeey3, Mahnaz Sadeghi Shabestari4, Fakhrossadat Mortazavi5

1 Center of Excellence for Biodiversity, Faculty of Natural Sciences, University of Tabriz, Tabriz, Iran.
2 Center of Excellence for Biodiversity, Faculty of Natural Sciences, University of Tabriz & Liver and Gastrointestinal Disease Research Center, Tabriz University of Medical Sciences, Tabriz, Iran.
3 Liver and Gastrointestinal Disease Research Center, Tabriz University of Medical Sciences, Tabriz, Iran.
4 Tuberculosis and Lung Disease Research Center, Children Hospital, Tabriz University of Medical Sciences, Tabriz, Iran.
5 Tabriz University of Medical Sciences, Tabriz, Iran.

P1-2 Prevalence of Osteoporosis and Its Risk Factors in Men with COPD in the Qazvin City
Mahnaz Abbasi1, Mohammad Ali Zohal2, Banafsheh Atapour3, Zohreh Yazdi4

1 Rheumatologist, Metabolic Disease Research Center, Associate Professor of Qazvin University of Medical Sciences
2 Pulmonologist, Metabolic Disease Research Center, Associate Professor of Qazvin University of Medical Sciences
3 Internal Medicine Specialist, Qazvin University of Medical Sciences
4 Occupational Medicine Specialist, Social Determinants of Health Research, Associate Professor of Qazvin University of Medical Sciences

P1-3 Association between Serum 25-Hydroxyvitamin D with Bone Densitometry and Chronic Back Pain in Menopausal Women
Mahnaz Abbasi1, Zohreh Yazdi2, Nazanin Farzaneh3

1 Rheumatologist, Metabolic Disease Research Center, Associate Professor of Qazvin University of Medical Sciences
2 Occupational Medicine Specialist, Social Determinants of Health Research, Associate Professor of Qazvin University of Medical Sciences
3 General Practitioner

P1-4 The effect of suffering from rheumatoid arthritis, systemic lupus erythematos and back pain on sexual function and marital satisfaction
Dr. Mohammad Reza Shakibi1, Dr. Farzaneh Yazdi2*, Dr. Nozar Nakahe2, Dr. Pouria Salajegheh3

1 Endocrinology and metabolism Research Center, Institute of Basic and clinical physiology Sciences, Kerman University of Medical Sciences, Kerman, Iran.
2 Neuroscience Research Center, Institute of Neuropharmacology, Kerman University of Medical Sciences, Kerman, Iran.
3 High specialized hematology and pediatric oncology student of Iran University

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Thursday, October 20

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P2-10  Radiation synovectomy with different radioisotopes
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P2-11  The effect of aerobic exercise on pain in patients with rheumatoid arthritis
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**Short-Term Efficacy of Intra-articular Injection of Platelet-Rich Plasma (PRP) Compared with Placebo in Patients with Osteoarthritis of the Knee**

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**Aim:** Osteoarthritis is one of the major degenerative disorders of articular cartilage leading to synovial inflammation and loss of function. Nowadays, disequilibrium of cytokines is known as a considerable cause for osteoarthritis progression through metalloproteinase action. This encourages medical researchers and specialists to new methods such as PRP injection. The aim of this study is to evaluate Short-term efficacy of intra-articular injection of autologous PRP (platelet-rich plasma) compared with placebo in patients with osteoarthritis of the knee.

**Methods:** This experimental study which was done as a double-blind placebo-controlled randomized clinical trial, on 30 osteoarthritis patients at stages 2 and 3 according to Kellgren – Lawrence. Intervention on patient’s knees was administrated by PRP and normal Saline (placebo), randomly. Clinical outcomes of study was assayed before, and 6 weeks after injections by WOMAC questionnaire and VAS criteria. Statistical analysis of our study results was done by SPSS 16 through Paired T Test.

**Results:** Based on our study results, a significant decrease was observed in the results of PRP injection for total mean scores of pain, stiffness, function and VAS criteria, (p value=0.005, 0.024, 0.005, 0.001 respectively). No significant decrease was observed for recorded scores of Saline injection except for VAS criteria (p value=0.012). Also, no complication including: swelling, osteomyelitis or other lesions was observed.

**Conclusion:** Based on our study findings, it appears that clinical application of PRP for osteoarthritis patients will be an effective method if combined with exercise and appropriate education.

**Keywords:** Osteoarthritis, Intra articular injection, Platelet-Rich Plasma, Growth factors, Placebo
Effect of Atorvastatin on the Disease Activity and Severity of Rheumatoid Arthritis: Double-Blind Randomized Controlled Trial

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Introduction: HMG-CoA (3-hydroxy-3-methylglutaryl coenzyme A) reductase inhibitors (statins) have anti-inflammatory properties which may be particularly useful in rheumatoid arthritis to suppress disease activity and inflammatory factors. The purpose of this clinical trial was to determine anti-inflammatory properties of statins in rheumatoid arthritis.

Materials and Methods: Eighty Iranian patients with rheumatoid arthritis, aged between 19 to 75 years were recruited to take part in this randomized, double-blind placebo-controlled trial. Subjects were randomly allocated to two groups to take atorvastatin or placebo 40 mg daily as an adjunct to current disease-modifying anti-rheumatic drugs (DMARDs) treatment. Disease Activity Score-28 (DAS28), C-reactive protein (CRP), erythrocyte sedimentation rate (ESR), swollen joint count (SJC) & tender joint count (TJC) were assessed before and after three months intervention.

Results: Analysis was based on intention to treat. DAS28 significantly declined in the atorvastatin group in comparison with placebo (p<0.001). SJC, TJC, CRP and ESR also were significantly dropped in the atorvastatin group in comparison with placebo.

Conclusion: It can be concluded that atorvastatin can suppress RA activity and inflammatory factors in RA patients for high to moderate grade of inflammation.

Keywords: Atorvastatin. Swollen Joint Count. Rheumatoid Arthritis. Tender Joint Count. Disease Activity Score.
Valproic Acid enhances the anti-inflammatory immune response through alternative activation of monocyte-derived macrophages in Systemic Lupus Erythematosus

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Aim: The anti-inflammatory role of macrophages in the clearance of apoptotic cells (ACs) is introduced to be involved in Systemic Lupus Erythematosus (SLE) pathogenesis. The efferocytic capability of macrophages is altered by M1/M2 polarization. Histone deacetylase inhibitors (HDACi) are proposed to enhance the expansion of M2 macrophages. Valproic Acid (VPA) is an HDACi with different anti-inflammatory properties.

Methods: Here, we studied the ex vivo alterations of Monocyte Derived Macrophages (MDMs) among 15 newly diagnosed SLE patients and 10 normal subjects following by ACs and VPA treatments. The phagocytosis capacity of MDMs and M1/M2 polarization (CD86/CD163) were evaluated. The supernatants were also investigated for the production of IL-10, IL-12, TGF-β1 and TNF-α cytokines. Two-way ANOVA and Bonferroni post-tests were used to analyze data statistically.

Results: We showed that efferocytosis is disturbed among MDMs of SLE patients. CD163 was overexpressed upon VPA treatment while CD86 showed no significant change. The anti-inflammatory cytokines (IL-10 and TGF-β1) were overproduced while TNF-α level was decreased in response to VPA.

Conclusion: Efferocytosis defect might be a major underlying mechanism involved in the SLE pathogenesis. VPA may enhance the anti-inflammatory immune response through alternative activation of MDMs in SLE patients.

Keywords: Valproic Acid, Efferocytosis, Macrophage, Polarization, Histone deacetylase inhibitor, Systemic Lupus Erythematosus
Biologically-Based Approach to Evaluate Classification Criteria for Chronic Childhood Arthritis

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Background: Childhood arthritis is a heterogeneous group of diseases. Efforts have been made to establish acceptable classification criteria for the disease. This has resulted in periodic refinements that strive to more precisely reflect subset-specific pathophysiology, treatment responses, and treatment outcomes. The International League for Associations for Rheumatology (ILAR) defined juvenile idiopathic arthritis (JIA) and proposed seven subgroups mainly based on clinical information. ILAR classifications have limitations: clinical courses are not consistent, and they do not reliably guide treatment choices or predict treatment responses. Advanced data analysis methods provide reliable tools to extract precise knowledge from large sets of heterogeneous data. Unsupervised data mining is a robust method to interrogate diverse data with the goal of improving disease classification.

Objective: To generate a robust taxonomy for chronic childhood arthritis based on clinical and biomarker profiles.

Methods: 150 newly diagnosed, treatment naïve children, with JIA from 11 participating Canadian Pediatric Rheumatology Programs participated in the BBOP Study (Biologically Based Outcome Predictors in JIA). The data included clinical manifestations and biomarkers. Data were collected at enrollment and six-month after. Categorical Principal Component Analysis (CAT-PCA) was used for variable reduction and K-means method for clustering purpose with the partitioning around medoids (PAM) algorithm. A dissimilarity matrix was generated using DAISY, as the original variables were of mixed types (numerical, binary, and etc.). The results were compared with the ILAR subgroups. Insensitivity to data perturbation was tested using Leave One-Out-Variable (LOOV) method and the median test. SPSS Statistics Professional version 23, R version 3.2.2, and Circos version 0.69 were used.

Results and Conclusion: From 191 variables 16 highly informative ones were identified to determine clusters, using variance accented for (VAF) ≥ 70%. The clinical variables chosen were sex and the number of involved joints; other variables included plasma levels of inflammatory biomarkers. To optimize number of clusters, internal and external K-means clustering validation criteria were considered. Accordingly, k=5 was the ultimate choice. Therefore, five clusters were identified in each visit. Both visits consist of more homogenous subgroups compare to ILAR subgroups. Clusters are more homogenous in visit 2 compared to visit 1. Patient clusters were insensitive to single variable removal using the LOOV and the median test. The need to re-classify JIA led us to use data-driven, unsupervised, machine learning algorithms. Distinctive patterns recognized within the data provide insight into the underlying biology of JIA, enabling us to more precisely approach childhood arthritis based on the underlying biology.

Keywords: Childhood arthritis, Biomarkers, Data mining
**Cyclosporine A in the Treatment of Refractory Proliferative Lupus Nephritis**

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**Aim:** Proliferative lupus nephritis is a common and severe manifestation of systemic lupus erythematosus (SLE) that can lead to end stage renal disease and death. The aim of this study was to evaluate the long-term efficacy of cyclosporine A (CSA) in the treatment of refractory proliferative lupus nephritis.

**Methods:** In a retrospective study patients with mycophenolate mofetil and/or cyclophosphamide resistant proliferative lupus nephritis under treatment with CSA were entered to the study. They were evaluated according to the reduction in proteinuria, creatinine clearance, remission of the renal disease, SLE disease activity index (SLEDAI), reduction in prednisolone dose, mortality and side effects of treatment.

**Results:** Twenty-five patients with biopsy proven proliferative lupus nephritis with mean age of 30±6.9 years including 5 men (20%) and 20 women (80%) were studied. The follow-up duration was 27.1±17.6 months. Proteinuria was decreased significantly during the treatment with CSA (P<0.001). Creatinine clearance was stable and changes was not significant. Complete renal remission and partial renal remission was occurred in 60% and 32% of patients respectively. Prednisolone dose was reduced from 26.3 mg/d before treatment to 6.8 mg/d after treatment with CSA (P=0.001). No end-stage renal disease or mortality were happened. The most common adverse events were dyspepsia.

**Conclusion:** According to the results of our study CSA is effective and safe in the treatment of refractory proliferative lupus nephritis.

**Keywords:** Cyclosporine A, treatment, Refractory Proliferative Lupus Nephritis
Prevalence of Rheumatic Disorder in Chemical Warfare Patients

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Aim: To assess prevalence of rheumatologic in chemical warfare patients exposed to sulfur mustard.

Methods: In this study 245 subject of the definite war chemical warfare patients living in Tehran and Karaj were interviewed to complete the Community Oriented Programmed for Control of Rheumatic diseases (COPCORD) core questionnaire. These cases with rheumatic compliance were examined by rheumatologist and laboratory and radiology test were performed if necessary for diagnosis.

Results: these patients with an average age of 51.1±7.39 and BMI 26.7±3.92. Musculoskeletal complaints and bone pain during the past 7 days were detected respectively 78.4% and 72% of subjects. Complaints were: shoulder 53.4%, elbow 28.4%, wrist 34.3%, palm and fingers 30.1%, pelvis 36.4%, knee 58.5%, ankle 31.8%, foot 23.7%, neck 44.1%, spine 53.8% and others 21.6%. these result showed that a total of osteoarthritis 69.9%: osteoarthritis in knee 58.4%, neck 23.9, hands and Thoracic vertebrae 0.4%, lumbar and hip 1.6%, shoulder and wrist 0.8. In addition lower back pain was founded 30.5%, and soft tissue rheumatism (shoulder Periarthritis 27.22%, frozen shoulder 13.2%, Tennis elbow 3.7% and carpal tunnel syndrome 11.5%). Moreover other diseases included Fibromyalgia 3.7%, Rheumatoid Arthritis 0.8, Spondyloarthropathy 2.9%, Gout 1.22% and Behcet’s disease and others 0.4%.

Conclusion: the result of this study compared to other COPCORD study in other population in Iran and other countries show that the overall prevalence of rheumatologic complaints and disorders in chemical warfare patients’ population is significantly higher than the average of the general population.

Keywords: COPCORD, chemical warfare patients, musculoskeletal disorders, rheumatic diseases
Correlation between six minute walk test and plasma proBNP level with echocardiographic findings of pulmonary hypertension in patients with systemic lupus erythematosus

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Aim: Pulmonary arterial hypertension (PAH) is an increasingly recognized complication of SLE, but may remain underdiagnosed if asymptomatic. To assess correlation of six minute walk test (6WMT) and serum pro-BNP levels with echocardiographic findings of pulmonary arterial hypertension in patients with systemic lupus erythematosus.

Methods: This is a prospective cross-sectional study of 50 SLE patients using resting transthoracic echocardiography to estimate the systolic pulmonary artery pressure (sPAP).

Results: 5 out of 50 patients were diagnosed to have PAH with sPAP > 30 mm Hg (range 31-40 mmHg) based on echocardiography. Spirometric parameters also did not show any difference between the two groups (P > 0.05), but the difference in total distance walked in six minute and serum proBNP level between SLE patients with and without PAH was considered significant (p < 0.05). A high correlation was found between pulmonary artery pressure and serum proBNP level but not between pulmonary artery pressure and the six minute walked distance in SLE patients.

Conclusion: The point prevalence of PAH in SLE patients was 10% in our study and the significant correlation between pulmonary artery pressure and serum proBNP level suggests that it can be used as a valuable marker for early diagnosis of asymptomatic pulmonary hypertension in patients with systemic lupus erythematosus.

Keywords: Systemic lupus Erythematosus, Pulmonary arterial hypertension, Six minute walk test, Serum pro-BNP levels, Transthoracic echocardiography
Study of P396S and R408Q Mutations of the MEFV Gene in Henoch Schonlein Purpura from Iranian Azeri Turkish Ethnic Group

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Aim: Coexistence of Familial Mediterranean Fever (FMF) with various systemic vasculitides, such as Henoch Schonlein Purpura (HSP) and other inflammatory disorders has been reported and MEFV gene has been suggested to play a significant role in the pathogenesis of this association. In this study, the P369S and R408Q mutations of the MEFV gene in HSP from Iranian Azeri Turkish ethnic group and its association with clinical symptoms of disease were evaluated.

Methods: Forty unrelated patients were referred by specialists to the Molecular Medical Genetic Center of Tabriz. Clinical diagnosis of HSP was made according to published criteria. The control group consists of two hundred ethnically matched persons apparently healthy without any kind of inflammatory diseases. Screening for P396S and R408Q mutations were performed by using polymerase chain reaction restriction fragment length polymorphism (PCR-RFLP).

Results: Findings suggest that P369S and R408Q mutations always together occurred and not only contribute to the susceptibility to HSP, also associated with clinical symptom of fever.

Conclusion: Our results suggest that P396S and R408Q mutations could be a contributory genetic factor to HSP from Iranian Azeri Turkish ethnic group.

Keywords: systemic vasculitides, Henoch Schonlein Purpura, MEFV gene.
Prevalence of Osteoporosis and Its Risk Factors in Men with COPD in the Qazvin City

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Aim: The purpose of this study was to evaluate the prevalence of osteoporosis and its risk factors in men suffering from COPD in Qazvin city, 2014.

Methods: This cross-sectional study was performed in Lung clinic of Boali hospital, in Qazvin 2014. This study was conducted on 90 patients with COPD by using random sampling. Inclusion criteria included diagnosis of COPD by pulmonologist and obtaining informed consent from patients. Exclusion criteria included history of asthma or any chronic pulmonary disorders except the COPD in patients, history of bone disease, and patients who were treated for osteoporosis or used diuretics. Anthropometric data, results from physical examination, pulmonary function test, and Bone mineral densitometry was done for all participants.

Results: The mean age and BMI of participants were 69.3±6.1 years and 22.2±4.17 kg/m², respectively. The prevalence of osteopenia and osteoporosis in COPD patients was 31.5 and 52.8 percent, respectively. Bone density at the femoral neck was associated significantly with Body Mass Index (BMI), increased severity of COPD, and use of oral corticosteroid (P<0.05).

Conclusion: the results showed that patients’ BMI and severity of COPD are two valuable risk factors for screening of osteoporosis in COPD patients.

Keywords: Chronic Obstructive Pulmonary Disease, osteoporosis, men, bone mineral density
P1-3

Association between Serum 25-Hydroxyvitamin D with Bone Densitometry and Chronic Back Pain in Menopausal Women

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Aim: Vitamin D plays an important role in calcium hemostasis and normal functioning of bones. The aim of this study was to explore an association between serum 25-hydroxyvitamin D levels with bone mineral density and chronic low back pain in menopausal women.

Methods: A total of 100 postmenopausal women with at least one year of menopause experience participated in this cross-sectional study. Demographic (age, age at menopause, weight, height) and anthropometric characteristics for all participants were collected. Patients with a history of steroid use and acute or radicular low back pain during the past year were excluded from study. Also, information about hours of physical activity during day, skin color, and history of low back pain and bone fractures were collected. Lumbar spine bone mineral density (BMD) and level of serum 25 hydroxyvitamin D were assessed.

Results: Mean age was 61.5±8.4 years and age at menopause was 49.2±5.9 years. Mean level of vitamin D was 25.8±15.1 ng/ml. More than half of the participants had hypovitaminosis D (56%). Among the 100 women, 50%, 39%, and 11% had osteoporosis, osteopenia, and normal density, respectively. Subjects with hypovitaminosis D, compared to those without hypovitaminosis D, reported more prevalence of osteoporosis in femur (P=0.011). There was no significant relationship between low back pain and hypovitaminosis D (P>0.05).

Conclusion: Hypovitaminosis D was related to low densitometry of bones especially in femur bone.

Keywords: 25-hydroxyvitamin D, low back pain, menopause, women, bone densitometry
The effect of suffering from rheumatoid arthritis, systemic lupus erythematos and back pain on sexual function and marital satisfaction

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Field and Aim: Sexual functioning is an important component of life quality and musculoskeletal disorders may be effective on sexual functioning, so, the present study was designed and conducted in order to evaluate sexual functioning in patients suffering back pain, rheumatoid arthritis and lupus.

Procedure: This study was conducted on 102 patients with rheumatoid arthritis, 103 patients with back pain, 103 patients with lupus and 210 people in control group by consecutive sampling method. Marital satisfaction questionnaire (ENRICH), Arizona Sexual Experience Scale (ASEX) questionnaire and mental health questionnaire (GHQ-28) were completed for all of these people. Disease severity was determines in each group of patients based on special questionnaire.

Findings: Mental health questionnaire (GHQ) score in rheumatoid arthritis and lupus patients was meaningfully higher than control group (P value<0.05), but there was no meaningful difference between back pain patients and control group (P value=0.414). Sexual functioning questionnaire (ASEX) score in all three patients groups was higher than control group (P value<0.05). Marital satisfaction questionnaire score in patients groups has no statistical meaningful difference compared to control group (P value=0.791).

Conclusion: The review resulted from this study has shown that the rate of mental health and sexual functioning in patients with rheumatoid arthritis, systemic lupus erythematos and back pain is less meaningful than healthy people in this regard and there is a need to intervention for improving mental health as well as sexual functioning in these patients. But marital satisfaction in these patients is similar to general population.

Keyword: rheumatoid arthritis, systemic lupus erythematos, back pain, sexual function, marital satisfaction
Phenotype-genotype Association of Patients with Refractory Rheumatoid Arthritis and Common Exon 10 MEFV Gene Mutations

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Objective: Rheumatoid arthritis (RA) is the most common chronic inflammatory diseases and the cause of lifelong disability in adults. Given the high prevalence of Mediterranean fever and its overlapping and modulatory effects on autoimmune diseases, we decided to analysis molecular mutation in exon 10 of MEFV gene in patients with refractory RA and treatment responsive RA as a control group in North-West of Iran.

Methods: Thirty four patients with refractory RA and fifty treatment responsive RA were conducted in the study and their DNA samples were analyzed. We used specific primers and standard PCR and Sequencing techniques for this analysis. We studied the most common exon 10 variations on MEFV gene which include; M680I, M694V, M694I and V726A. At the end of this study, we compared the results of both groups and investigate if our patient’s phenotype have any association with their genotype or not.

Results: The mean ages of patients with refractory RA were 43.13±7.7 years and disease duration was 49.8±7.36 months likewise in control group 45±8.27 years and 54.9±6.24 months, respectively. The severity of disease was evaluated based on DAS (Disease activity score) scoring system, the mean of DAS score of patients with refractory RA was 4.22±0.51 and the mean of ESR (Erythrocyte sedimentation rate) was 45±12.7 months and in control group there were 2.1±0.55 and 33.52±13.19 respectively. We conducted sequencing for DNA of patients of both groups to study common mutations in exons 10 in MEFV genes in which they carry substitution of M680I, M694V, M694I and V726A in their alleles. The mutation frequency of exon 10 MEFV variants in the refractory subjects as compared with the responsive controls was very similar (P=0.405). According to the result, we found no association between severity of RA and common exon 10 MEFV gene mutations.

Conclusion: We found no mutation in patients with RA in both groups. This was primarily due to the low incidence of mutations in exon 10 in MEFV gene in patients with rheumatoid arthritis. The roles of other exon 10 variants, as well as the associations between the variant status and the clinical course of the disease, need to be investigated in further studies with sufficiently large sample sizes.

Keywords: Refractory Rheumatoid arthritis, MEFV gene, Mutation, Exon 10
Effect of benson relaxation on the rate of disease process in rheumatoid patients referring to rheumatology research center of Nour hospital in Esfahan in 2015-2016

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Background and Aim: Rheumatoid arthritis is a chronic disease, followed by multiple-system involvement of unknown etiology. Major sign is inflammation of sinovial joints. In addition to pain, inflammation, restriction and joints deformity the patients experience mental disorder, stress, anxiety and depression resulting from disease condition is associated with disease which provid defective cycle between mental and physical signs, as a result, the disease is activated by stress and nervous stimulants. Therefore control of the disease is difficult sometimes, hence, in this study, medication was followed along with benson relaxation in order to control the disease activity.

Methods: This clinical trial study was performed in rheumatology research clinic of nour hospital in esfahan during 2015-2016. 100 patients were selected as non probable samples from the society under investigation, and on the basis of age and sex, randomly were divided in two case (50 patients) and control (50 patients) groups. Patients of the case group individually were trained for benson relaxation with tape. This interference was followed for 8 weeks. In order to evaluate benson relaxation effects, clinical symptoms, laboratory findings, anxiety, depression and feeling of well being before and after interference were measured.

Results: Statistical tests showed no significant difference in variable of pre and post intervention in two groups. Mean variables of anxiety, depression and feeling of well being in two groups in post intervention were as follow: P=0.0001, P=0.0001 and P=0.001 respectively which indicated significant difference. Most variable of clinical symptoms and laboratory findings showed decline in disease progress. But no significant statistical difference was observed.

Conclusion: Hypothesis of this study emphasizing that, benson relaxation declines disease progress, was confirmed for anxiety, depression and feeling of well being. Referring to the other variables related to clinical symptoms and laboratory findings, and in order to obtain more accurate statistical results, study with more sample size and performing of interference in more than 8 weeks period is necessary.

Keywords: Rheumatic diseases, Rheumatology, Relaxation, Pathologic sings of diseases,
Objective: As many as 25% of connective tissue disease (CTD) patients can present with an overlap syndrome with features of two or several diseases occurring concurrently or consecutively during the course of the illness. Systemic Lupus Erythematous (SLE) disease is one of the major causes of morbidity and mortality in the field of rheumatology that frequently present with features of other CTD. The aim of this study was to describe a novel overlap syndrome of SLE in a case series.

Case presentation: Two patients with SLE and sacroiliitis ... A 36 year old man with cognitive disorder, bilateral knee arthritis and progressive weakness in lower extremities, in evaluation detected high titer smith and positive RNP antibodies, microscopic hematuria, positive HLAB27 and bilateral sacroiliitis. A 34 year old women with a symmetrical polyarthritis, sausage right 2nd toe, right eye diplopia for three days, recurrent finger pulpitis, history of suspected panniculitis, in evaluation detected leukopenia/lymphopenia, positive anti nuclear antibody, right side sacroiliitis, normal brain MRI, and negative HLAB27.

Two patient with SLE and granulomatosis polyangiitis: a 39 year old women with polyarthritis and photosensitive malar rash, some cognitive problems, history of total anosmia, in evaluation detected positive anti smith antibody, high titer Anti-MPO antibody and pauciimmune glomerulonephritis with proteinuria and hematuria. A 31 year old women with SLE who presented with oral and leg ulceration thrombocytopenia, leukopenia, high titer positive Anti ds-DNA and treated for 1 years then started nasal pain and bloody discharge with positive Anti-PR3 antibody, and positive anti cardiolipin antibodies.

Conclusion: sacroiliitis, and granulomatosis polyangiitis –although rare- can present in patients with active SLE.

Keywords: Overlap, SLE, sacroiliitis, granulomatosis polyangiitis
Influence of replacing tuberculin skin test with ex vivo interferon γ release assays on decision to administer prophylactic anti-tuberculosis antibiotics before anti-TNF therapy

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Antitumor necrosis factor (anti-TNF) agents are approved for the treatment of several immune mediated inflammatory diseases including rheumatoid arthritis (RA), spondylarthropathies (SpA), Crohn’s disease (CD), psoriasis and juvenile idiopathic arthritis and provide marked clinical benefit.

However, one of the most problematic severe adverse effects of these drugs is the possible reactivation of latent tuberculosis infection (LTBI) in patients previously exposed to TB bacilli. Thus, screening for LTBI has been recommended before initiating treatment with TNF blockers.

This screening has resulted in a decrease in the incidence of TB, but TB still remains a problem in patients receiving anti-TNF therapy with an incidence of 0.1–0.5/100 patient-years in Western Europe where TB is not endemic. TB is more frequent in patients receiving monoclonal antibodies than the soluble receptor, and remains the most frequent opportunistic infection in these patients receiving anti-TNF therapy. The recommendations for detecting LTBI differ worldwide, but are based mainly on the tuberculin skin test (TST).

The TST requires a return visit for reading the test result and it has poor specificity because previous vaccination with bacillus of Calmette and Guerin (BCG) and environmental mycobacterial exposure can result in false-positive results.

This poor specificity can lead to unnecessary treatment with antibiotics with the possible risk of drug toxicities. In vivo interferon γ (IFNγ) release assays (IGRAs) investigating IFNγ release by T cells in the presence of these specific mycobacterial antigens, QuantiFERON TB Gold in tube (QFT-Gold IT) (Cellestis, Carnegie, Australia) and T-SPOT. TB (Oxford Immunotec, Abingdon, UK), seem to be more accurate than the TST for diagnosing active TB, recent primary infection or LTBI in the general population.

This case series study was conducted to assess the effect of replacing the TST with IGRAs on the diagnosis of LTBI and on our decision on treatment for patients with immune-mediated inflammatory diseases (i.e., the percentage of patients for whom the decision for antibiotic prophylaxis changed). Consecutive patients with RA, SpA, Sarcoidosis with an indication for initial biological treatment with anti-TNF agents in rheumatology departments were included in the study.

In accordance with the French recommendations for screening for LTBI, all patients underwent a clinical examination focused on questioning about previous contact with TB and a chest x-ray.

Patients were followed for 1 year. Eventual occurrence of TB was recorded. IGRA test were performed for Patients who developed wheals ≥5 mm in diameter on TST. The decision whether or not to administer anti-TB antibiotic prophylaxis was according to the IGRA test results. Patients with positive TST but negative IGRA test were considered as false positive TST and the anti TNF drug (etanercept) was administered without TB prophylaxis. This patients followed for at least one year and fortunately didn’t develop any sign or symptom of Tuberculosis. The decision whether or not to administer anti-TB antibiotic prophylaxis according to the protocol or only the IGRA test results.

This study has shown that replacing TST with IGRA in screening for LTBI allowed the proportion of patients requiring antibiotic prophylaxis to be reduced.

Taking into account the number of diseases with an indication for anti-TNF therapy and the possible inconvenience of antibiotic prophylaxis (cost, possible side effects, and delay in anti-TNF treatment), the conclusions of this case series have important practical consequences.
Subcutaneous Emphysema, Pneumomediastinum And Pneumothorax In 2 Patients With Dermatomyositis

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Aim: Dermatomyositis and polymyositis (DM/PM) are inflammatory systemic diseases affecting skeletal muscles and other organs, including the respiratory system. Lower respiratory tract involvement is still a common cause of morbidity and mortality in DM/PM. Subcutaneous emphysema, pneumothorax and pneumomediastinum are serious complications of ILD in inflammatory myopathies and occurs more commonly in DM than PM. These complications are very rare in patients with DM/PM and there are only several case reports in the medical literature. Here, we report 2 cases of DM who were complicated by subcutaneous emphysema, pneumomediastinum and pneumothorax.

Methods: We studied the medical records of 2 patients with dermatomyositis who were complicated by subcutaneous emphysema, pneumomediastinum and pneumothorax.

Results: Case 1: A 20 – year - old woman was admitted to our hospital (Imam Reza Hospital, Mashhad, Iran) with neck pain, fever, cough and dyspnea. She was a known case of dematomyositis since 21 months ago (March 2014). She was treated with prednisolone 50 mg daily and azathioprine 100 mg daily. She felt well until July 2015 when she complained of dyspnea. On chest examination bilateral fine crackles were heard. Chest X-ray showed bilateral opacities and computed tomography (CT) scan showed bilateral ground glass opacities. Azathioprine was replaced with cyclophosphamide 1000 mg per month. After 2 months she did not feel better and chest x-ray showed progression of fibrosis. Intravenous Immunglobulin (IVIG) 400 mg/kg/day for 5 days was prescribed. One month later, she was admitted for neck pain and increased dyspnea. She reported chills and fever for 10 days. On physical examination, she was febrile (T=38.2 °C). A subcutaneous crepitus around her neck was detected. Chest radiograph and CT scan of the thorax showed a progression lung involvement with subcutaneous emphysema, pneumomediastinum, thickening of interlobular septa, and reticulonodular pattern (figure 1). However, the patient died because of severe hypoxemia despite intensive immunosuppressive therapy and mechanical ventilation.

Case 2: A 44 – year - old man was admitted to our hospital with complaints of weight loss, muscle weakness, heliotrope rash and Gottron’s papules. The diagnosis of dermatomyositis was made based on typical rashes, muscle weakness, high serum CPK level and myopathic pattern in electromyography. Chest x-ray was normal, but there were patchy opacities bilaterally in the CT scan of thorax. He was treated with prednisolone 30 mg daily and azathioprine 100 mg daily. Three months later he was admitted in the emergency department with complaints of severe dyspnea. On examination, there was a subcutaneous crepitus around her neck and upper chest. Chest radiograph and CT scan of the thorax showed subcutaneous emphysema, pneumomediastinum, and Pneumothorax. Despite intensive immunosuppressive therapy clinical deterioration and radiological progression were observed and the patient died.

Conclusion: Subcutaneous emphysema, pneumomediastinum, and Pneumothorax are very rare complications of lung involvement in patients with DM/PM that are associated with a very poor prognosis. We still need an effective treatment strategy for these complications.

Keywords: Myositis, pneumomediastinum, pneumothorax, subcutaneous emphysema

Figure 1. Right: Chest computed tomography scans of case 1. The scan showing subcutaneous emphysema, pneumomediastinum, pneumothorax, thickening of interlobular septa, and reticulonodular pattern. Left: Chest computed tomography scans of case 2. The scan showing pneumomediastinum and pneumothorax.
Comparative survey of sleep quality and clinical manifestations in scleroderma patients with and without depression

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Aim: Systemic sclerosis(SSc) is a connective tissue disease characterized by fibrosis of skin, lung and other internal organs. Intensity of pulmonary fibrosis, renal and cardiac involvement, and gastrointestinal problems are indicators of life quality and expectancy. Sleep quality would be affected by all of these conditions. Depression also causes sleep disturbance as an independent factor. In present study we assessed interaction of clinical manifestations and depression in sleep disturbance of patients with SSc.

Material and Method: General assessment of clinical manifestation and para-clinical data of 100 patients with SSc referring to Scleroderma clinic of Hafez Hospital affiliated to Shiraz University of medical Science done by internist and 44 patients were included in study. Pittsburgh Sleep Quality Index(PSQI) questionnaire was used to evaluate sleep disturbance of patients. Then they were referred to psychologist and based on interview divided into two groups of depressed and non-depressed.

Result: Half of the patients suffered from depression and 86.3% had poor sleep quality. Presence of depression as an independent factor affected sleep quality of patients. Depression was significantly associated with total PSQI score (P-value=.007), daily time dysfunction (P-value=.012), and use of sleep medicine (P-value=.037).There was a borderline relation with subjective sleep quality (P-value=.065). Patients with diffuse SSc, regardless of presence of depression, had more sleep disturbance than those with limited SSc (P-value=.043). Disease duration, GI symptoms, higher skin score and pulmonary fibrosis did not cause sleep disturbance independently.

Conclusion: Poor sleep quality and depression are common in patients with SSc. Depression causes sleep disturbance regardless of clinical manifestations of the disease.

Keywords: Systemic sclerosis(SSc), Depression, Sleep quality
A Case of Neuro-behcet’s Disease Complicated with Intra-cardiac Thrombosis

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Behcet’s disease (BD) is an autoimmune multisystem vasculitis which involves both arteries and veins of all sizes. Among all manifestations of the disease, cardiac involvement is very important and can be life threatening. Intra-cardiac thrombus is an unusual and rare complication of BD with poor prognosis. We report a case of a 32-year-old man admitted to our hospital with headache and oral aphthosis who was diagnosed as neuro-BD after clinical and laboratory investigations. We detected cerebral venous thrombosis in magnetic resonance venography and high intracranial pressure which was measured as 32 cmH₂O. Ophthalmologic consultant reported bilateral papillary edema. During his hospitalization, the patient developed shortness of breath and palpitation. Echocardiography was requested for him. Echocardiography showed fixed MQS, Tricuspid valve involvement, Tricuspid regurgitation and high pulmonary arterial pressure. His Chest X-ray showed no specific findings. In computed tomography scan, normal lung parenchyma, extension of thrombosis into the main pulmonary artery and pulmonary hypertension was disclosed. Perimetry was normal. The second echocardiography showed a reduction in the thrombus size after treatment with high dose corticosteroid and single dose of infliximab. Intra cardiac thrombosis can be a sign of BD. It has a poor prognosis with almost 30% mortality. It can lead to death due to massive hemoptysis, recurrence and post-surgical complications. Therefore all the patient with BD should be followed up with close monitoring to prevent life-threatening complications of the disease and start treatment as soon as possible.

Keywords: Behcet’s disease, intracardiac thrombosis, echocardiography.
Psychological factors affecting on quality of life in patients with rheumatoid arthritis

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Background: Rheumatoid arthritis is the most common and important inflammatory disease of the joints caused by the interaction of genetic factors, immunological, psychological and social occurs and is associated with chronic pain. This disease has important psychological disease symptoms so the aim of this study was Psychological factors affecting the quality of life in patients with rheumatoid arthritis.

Material and Method: In this review study, information was collected by searching databases and studies in this regard.

Results: Psychological studies have shown that pain is associated with psychological disorders and Patients with musculoskeletal disorders such as rheumatoid arthritis, chronic pain is cause major complications that the most important of poor quality of life due to emotional and psychological disorders.

Conclusion: Finally Psychology indicates that quality of life is a broad concept that Affecting physical health, psychological state. Because psychological factors have important role of in quality of life, we Can Improve the quality of life in patients with rheumatoid with appropriate psychological interventions.

Keywords: rheumatoid arthritis, Quality of life, psychology
Seropositivity of Rheumatoid Arthritis Specific Tests in a Patient Primary Presented with Nephrotic Syndrome

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Background: Extra Articular manifestation of rheumatoid arthritis in the absence of articular disease, as the first presentation is very rare. Although renal involvement due to amyloidosis in a longstanding RA, membranous nephropathy due to gold or depenicillamine in the past years, and tubulo interstitial nephritis due to NSAIDs are well recognized complications of RA, but nephritic syndrome as a presenting sign for RA is extremely rare.

Case Report: A 27 year old woman with no relevant previous history presented with swelling of her leg and was found to have a nephrotic Syndrome. Renal biopsy showed a minimal change glomerulopathy and coincident investigation showed high serum titers of rheumatoid factor, anti CCP, anti MCV, ANA, anti RO. Other immunologic tests including anti dsDNA, anticardiolipin, Lupus anticoagulant were negative. serum complement level was normal. urinary sediment was blunt. she deny any joint and muco-cutaneous symptom. we started high dose prednisolone and cellcept for her treatment. she developed diarrhea as a side of cellcept so we stopped it. unfortunately the serum creatinine raised rapidly to 5 mg/dl along with 11 gr protein in 24 hour urine sample, so we decided to treat more aggressive with 3 days methylprednisolone pulse (3 gr totally). the patient was nullipar so we chose rituximab 500 mg weekly for 4 weeks instead of endoxan with 30 mg of daily oral prednisolone.

This patient, had no evidence of systemic lupus erythematosus or other systemic disease associated with infection, malignancy, or drug exposure, presented with a nephritic syndrome due to minimal change disease (proved by biopsy) in the presence of strongly positive specific autoantibodies for rheumatoid arthritis disease. She may develop other features of RA during the time in the future.

Conclusion: Nephrotic syndrome may be the first presentation of rheumatoid arthritis and specific auto-antibodies for screening of RA should be a part of diagnostic evaluation in work up of nephrotic syndrome.
Vitamin D for Non-specific Musculoskeletal Complaint and Effect on Quality of Life

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Purpose: The aim of the present study is to investigate the effect of administration of vitamin D supplementation on non-specific persistent musculoskeletal pain and quality of life in patients with vitamin D deficiency in Esfahan in 2014-2015.

Methods: In this clinical trial study, sixty-six patients (18-50 years) with non-specific musculoskeletal complaint and vitamin D deficiency (59 women and 7 men) were randomized to receive placebo or vitamin D (50000 IU, weekly for 8 weeks), and both of them were evaluated by clinical examination and questionnaire (for relieve of pain and quality of life), at beginning of study and week 8 thereafter.

Results: All cases enrolled in this study had vitamin D deficiency. Patients in the vitamin D group were significantly more than their counterparts in the placebo group report pain relieve after 8 weeks treatment (p=0.04 vs p=0.42) and also patients in vitamin D group had increased Quality of life (QOL) scores compare to placebo (p=0.03 vs p=0.98).

Conclusion: There is a significant effect observed on quality of life and chronic non-specific musculoskeletal complaint of patients after administration of therapeutic doses of vitamin D. Further research should focus on effect of psychological state, age, and degree of physical activity in response to vitamin D therapy.

Keywords: Vitamin D deficiency, musculoskeletal pain, Quality of life
Tumor Necrosis Factor Receptor-1 Associated Periodic Syndrome Gene Mutation in an Iranian patient: A Case Report

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Tumor necrosis factor receptor-associated periodic syndrome (TRAPS) is an autosomal dominant periodic fever syndrome caused by mutations in the TNFRSF1A gene encoding the receptor for tumor necrosis factor (TNF)-α. It is characterized by attacks of prolonged episodes of fever, abdominal pain, severe myalgia, and painful erythema on the trunk or extremities. We report an 8 years child with febrile attacks used to occur every 1-2 month and continue for 3-4 days. During the attack patient had 40°C fever without chill. About 80% of fever attacks were accompanied by abdominal manifestations. Genetic analysis showed a heterozygous R426L mutation in the exon 10 of TNFRSF1A gene.

Keywords: Tumor Necrosis Factor Receptor-1 Associated Periodic Syndrome, Periodic fever syndrome, Mutation, Iranian
Treatment of Lung Involvement with Cyclophosphamide in Systemic Sclerosis

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Aim: Systemic sclerosis (SSC) is a systemic condition with various manifestations in different organs. Among these organs, the lungs are affected very frequently, and the involvement is progressive and significant. Various medications have been suggested and tested in patients with SSC and lung involvement, but their efficacy and safety profile differ and enforce a final decision-making difficult. Cyclophosphamide is an example in this regard. This study sought to examine the therapeutic effect of this drug in patients with scleroderma and lung disease.

Methods and Materials: A total of 20 patients with SSC and parenchymal lung disease received intravenous cyclophosphamide (500 mg/m²) along with gradually tapering prednisolone (20-7.5 mg/day) and azathioprine (2mg/kg) after discontinuation of the former for six consecutive months. The Transition Dyspnea Index (TDI), Forced Vital Capacity (FVC), Total Lung Capacity (TLC), Diffusion Lung Carbon monoxide (DLCO), 17 revised Rodnan Score, and high resolution computed tomography (HRCT) scan results were examined 3 and 6 months after starting the treatment.

Results: After 6 months of treatment, there was not significant increase in FVC (4.56%, p=0.14), TLC (0.83%, p=0.23) and 17 revised Rodnan Score (0.04%, p=0.67). The trend in TDI was neither specific nor significant (p=0.79). The HRCT Scan, had not significantly changes 6 months after treatment compared to the baseline findings (p=0.402)

Conclusion: In the current study, the changes at FVC, FEV1, TLC, DLCO, dyspnea, high resolution CT scan, and skin thickening before and after the treatment were not significant.

Keywords: Lung Involvement, cyclophosphamide, systemic Sclerosis
Aim: We present a case of pregnancy and lactation-associated osteoporosis (PLO) after Gonadotropin releasing hormone (GnRH) therapy that was successfully treated with teriparatide.

Patient: A 34-year-old primiparous woman developed mechanical low back pain (LBP) in the 8th months of pregnancy. LBP exacerbated during the pregnancy and reached to maximum after delivery. Spinal radiographs and magnetic resonance imaging detected fractures in the T12-L3. Bone mineral density (BMD) was measured using dual-energy x-ray absorptiometry and showed osteoporosis. Her past medical history was positive for receiving of GnRH one month before pregnancy. After diagnosis of PLO, breastfeeding was stopped. Calcium, vitamin D3 and teriparatide 20 μg/d were started. Ten days after the treatment, improvement in the patient’s pain and mobility was observed. Six months after the treatment, control BMD showed significant increase in the lumbar and hip BMD. No new fractures developed during the treatment.

Conclusions: Treatment with GnRH may be a risk factor for PLO. Treatment of severe PLO using teriparatide combined with calcium and vitamin D supplementation and stopping of breastfeeding may be effective ways of increasing bone density and preventing new fractures.

Keywords: Treatment, Pregnancy and Lactation Associated Osteoporosis, teriparatide
Detection and Differentiation of the SEC Gene segments in Synovial Fluid of Rheumatoid Arthritis Patients

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Detection and differentiation on segments of the superantigens gene sequence in synovial fluid of Rheumatoid Arthritis (RA) patients may crucial for disease control.

The aim of this study was assayed the efficacy and accurately of different pair primers to detect different segmentes of staphylococcal enterotoxin C Gene in synovial fluid of RA patients.

In this study, seventy synovial fluids of RA patients were assayed. The pair primers were amplified 102, 206 and 1223bp fragment respectively. The PCR products were sequenced and multiple alignments with reference gene were compared. The obtained data was subjected to descriptive analysis.

The results showed that the three pair primers were amplified by different frequencies. The frequency of amplified amplicons 1223, 206 and 102bp of ent C gene were 9(18%), 34(68%) and 17(44%) respectively and the amplicon 206bp was the most abundant of the amplification product. The results showed the existent the specific partial of the staphylococcal enterotoxin C gene segment (206bp amplicon of ent C gene) in synovial fluids of RA patients with highest frequency. Therefore, the choice of specific primers to amplify 206bp fragments of ent C is more reliable. This finding may help to detect the molecular etiology of rheumatoid arthritis disease.

Keywords: Staphylococcal enterotoxin C, PCR, Rheumatoid arthritis.
Ventricular Endomyocardial Fibrosis in a Pregnant Female with Behçet’s Disease

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Aim: Cardiac involvements are among the very serious life-threatening consequences of Behçet’s disease (BD) identified in 7-46% of patients. Here we report an Iranian woman presented with symptoms of heart failure in pregnancy diagnosed as BD.

Method: A 32-year-old pregnant female, diagnosed as BD from 6 months ago presented with recent mild hemoptysis and exertional dyspnea.

Results: Transthoracic echocardiography showed an enlarged dysfunctional right ventricle (RV). A large hypoechoal and triangular shaped mass was seen attaching to the inner wall of the right ventricle filling in the cavity. No change was reported in the size of mass after anticoagulant prescription and right heart failure was progressed, so she was considered as a candidate for cardiac surgery, the mass was removed and tricuspid valve has been repaired.

Conclusion: This was a very rare presentation of BD in pregnancy resulted in delivery of a completely healthy baby regardless to the invasive corticosteroid pulse therapy and Cyclophosphamide.

Keywords: Endomyocardial Fibrosis, Pregnancy, Behçet’s Disease
P2-7

Orbital Myositis as a First Presentation of Systemic Lupus Erythematosus

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Aim: Orbital involvement is a less common manifestation in SLE. In this article we present a patient with orbital pseudo tumor as a first manifestation of systemic lupus erythromatosus

Case Presentation: A 20-year-old woman presented to our department with sudden onset unilateral painful swelling of the right eye. Clinical and laboratory evaluation ruled out endocrine, infectious and neoplastic disorders, and suggested the diagnosis of pseudo tumor of orbit. CT-scan revealed enlargement of the lateral and inferior rectus muscles at the right side. The condition responded rapidly to systemic corticosteroids associated with immunosuppressive agents. Results of complementary tests confirmed systemic lupus erythematous

Conclusion: although Systemic lupus erythematosus is a rare cause of orbital myositis, it should be considered when other conditions have been excluded.
Effectiveness of Topical Trinitrate Glyceryl (TNG) in the Treatment of Tennis Elbow: a Randomized clinical trial

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Background: Tennis elbow (TE) is a most important tendonitis that presenting in 3% general population. Previous studies showed the benefit effect of trinitrate glyceryl (TNG) in treatment of tendinopathies. However, there is not enough evidence of the efficacy of TNG on treatment of TE. Hence, this study was aimed to evaluate the effectiveness of topical TNG in treatment of patients with TE.

Materials and Methods: 84 patient with TE for more than 3 month participated in this clinical trial study and were randomly divided into two groups; group A (treatment group) received dermal patches and TNG-containing drop, and the control group (group B) received dermal patches and liquid paraffin-containing drop (placebo). The pain and tenderness were assessed at 0, 2, 4, and 6 weeks after beginning of the treatment in both groups.

Results: Two weeks after treatment, 7.7% and 73.3% of the patients were painless in the placebo and TNG groups, respectively. In addition, the pain was relief in 18.4% and 80%, patients four weeks after treatment and 57.6% and 84.4% patients, six weeks after treatment, respectively.

Conclusion: The findings of the present study are consistent with the results of the mentioned studies, so that the use of patch along with TNG was effective in patients with TE within 6 weeks.

Keywords: Trinitrate Glyceryl (TNG); Tennis elbow; Tendonitis
The role of Imaging in Osteoarthritis

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Osteoarthritis (OA) is the most prevalent joint disorder with no approved disease-modifying treatment available. Technologic advances and implementation of sophisticated post-processing instruments and analytic strategies have resulted in imaging playing a more and more important role in understanding the disease process of OA.

The importance of imaging in assessing all joint structures involved in the disease process, including articular cartilage, meniscus, subarticular bone marrow, and synovium for diagnosis, prognostication, and follow-up, has been well recognized.

Radiography is still the most commonly used imaging modality for establishing an imaging-based diagnosis of OA. MR imaging-based studies have revealed some of the limitations of radiography. The ability of MR to image all relevant joint tissues within the knee and to visualize cartilage morphology and composition has resulted in MRI playing a key role in understanding the natural history of the disease and in the search for new therapies. This article describes the roles and limitations of different imaging modalities such as radiography, MRI, Ultrasound for clinical practice and research in OA.

Keywords: Osteoarthritis, MRI, Radiography, Ultrasound
Radiation synovectomy with different radioisotopes

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Rheumatoid arthritis (RA), is a common and chronic condition that is managed with both systemic and local drug treatment. In case synovitis persists, surgical, chemical or radiation synovectomy may be an option.

Radiation synovectomy or radiosynoviorthesis (RSO) is being used for decades. The injected small particles labelled with β-emitting isotopes are phagocytosed by macrophage-like synoviocytes and phagocytizing inflammatory cells, located in the subsynovial connective tissue. Radiation of the synovium results in necrosis of the synoviocytes and inflammatory cells; cell proliferation and synovitis are temporarily inhibited and progression of joint-damage is possibly delayed.

Some Associations advises 90Yttrium, 169Erbium and 186Rhenium colloids for RSO. These radiopharmaceuticals are at the moment the only commercially available isotopes for RSO. The penetration depth of the β-rays should correspond to the thickness of the inflamed synovium. 90Yttrium is used for RSO of the knee, 186Rhenium for RSO of medium-sized joints and 169Erbium for RSO of finger and toe joints. because radioisotopes have important role in Radiation synovectomy, so in this review study different kind of radioisotopes and their applications a limitations discussed.

keywords: Radiation, synovectomy, radioisotopes
The effect of aerobic exercise on pain in patients with rheumatoid arthritis

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Aim: Rheumatoid arthritis is an inflammatory disease in which the joint pain, the most important problem for patients with this disease is considered. Joint pain and stiffness caused low mobility of people and ultimately disrupt the lives of these patients. The aim of this study was to determine the effect of aerobic exercise on pain in patients with rheumatoid arthritis.

Methods: In this study, by searching for any words aerobic exercise, rheumatoid arthritis, pain in (pubmed, different sources (HIB, SID, Irandoc, iranmedex, googl scholare, sciencedirect and scientific literature, in the years 2005-2016 were studied paper.

Results: The results showed that in most studies no significant difference between mean pain intensity in patients who did aerobic exercise compared to those who had not undergone training there.

Conclusion: It is suggested to ease the pain of aerobic exercise in patients with rheumatoid arthritis should be used alongside other therapies..

keywords: Aerobic exercise, rheumatoid arthritis, pain.
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