9th Annual Congress of Iranian Rheumatology Association

ABSTRACT BOOK

7th–9th October 2015

Isfahan, Iran

Table of Contents

WELCOME MESSAGE

In The Name of Allah

Dear Members and Colleagues:

On behalf of Rheumatology Research Center (RRC), supported by The Esfahan University of Medical Sciences, we would like to express our heartfelt gratitude to all of the participants at the 9th Annual Congress of Iranian Rheumatology Association in Esfahan. The meeting program includes 3 special lectures, and 2 scientific sessions selected from the scientific topics submitted to us from throughout Iran, and 6 scientific sessions including important challenging topics of Rheumatology which is conducted by Rheumatologist and related specialist, and 2 intensive workshops. We are proud to say that for the second time in our congress we are having a "Meet the Professor session" on Behcet's disease conducted by Professor Davatchi, and also a "patient training session" on Rheumatoid Arthritis.

Leading experts and scientists will be joining us in Esfahan 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 Rheumatologic disease.

In addition, the vicinity of Esfahan has many attractive places, including Naghshe jahan square, The Chehel sotoon Museum, Khajoo bridge and so on.

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

.

Professor Ahmadreza Jamshidi
President of Iranian Rheumatology Association
President of the 9th Annual Congress of
Iranian Rheumatology Association

WELCOME MESSAGE

It gives us a great honor and privilege to invite you to attend the 9th Iranian Congress of Rheumatology will be held at the Isfahan University of Medical Sciences, Isfahan, IRAN from October 7 to October 9, 2015.

Esfahan or Hispahan, is the capital of Isfahan Province in Iran, located about 340 kilometers south of Tehran. It has a population of 1, 755, 382 and is Iran's third largest city. The Zayande River starts in the Zagros Mountains, flows from west to east through the heart of Isfahan, and dries up in the Gavkhooni wetland. The bridges over the river include some of the finest architecture in Isfahan.

Isfahan University of Medical Sciences is one of the most prestigious Iranian medical schools

provides both undergraduate and graduate programs in 12 hospitals and 35 departments, the university is currently a regional health care provider and the main medical center in Isfahan Province and central Iran.

We would like you to take this opportunity to discuss various topics in Rheumatology and autoimmune disease, and to exchange views on the field with leading and high-profile experts.

We very much look forward to meeting you and your 'team' at the congress and can assure you of a memorable scientific festival. We look forward to meeting you in Isfahan.

Best regards.
Dr. Peyman Mottaghi
Head of Scientific Committee

COMMITTEES

Congress President: Ahmadreza Jamshidi *(Iran) - Rheumatology*
Scientific Secretary: Peyman Mottaghi *(Iran) - Rheumatology*
Organizing Secretary: Mansour Salesi *(Iran) - Rheumatology*

SCIENTIFIC COMMITTEE

Mahmoud Akbarian *(Iran) - Rheumatology*
Zahra seidbonakdar *(Iran) - Rheumatology*
Ali Mohammad Fatemi *(Iran) - Rheumatology*
Awat feizi *(Iran) - Biostatistics*
Aliasghar Hajiabbasi *(Iran) - Rheumatology*
Mohammadreza Hatef *(Iran) - Rheumatology*
Ahmadreza Jamshidi *(Iran) - Rheumatology*
Hadi Karimzadeh *(Iran) - Rheumatology*
Peyman Mottaghi *(Iran) - Rheumatology*
Abdolrahman Rostamian *(Iran) - Rheumatology*
Arman Ahmadzadeh *(Iran) - Rheumatology*
Seyedeh Tahereh Faezi *(Iran) - Rheumatology*
Mohsen Soroush *(Iran) - Rheumatology*
Fatemeh shirani *(Iran) - Rheumatology*
Ahmadreza zamani *(Iran) - Community Medicine*
Vahid Ziaey *(Iran) - Pediatric Rheumatology*

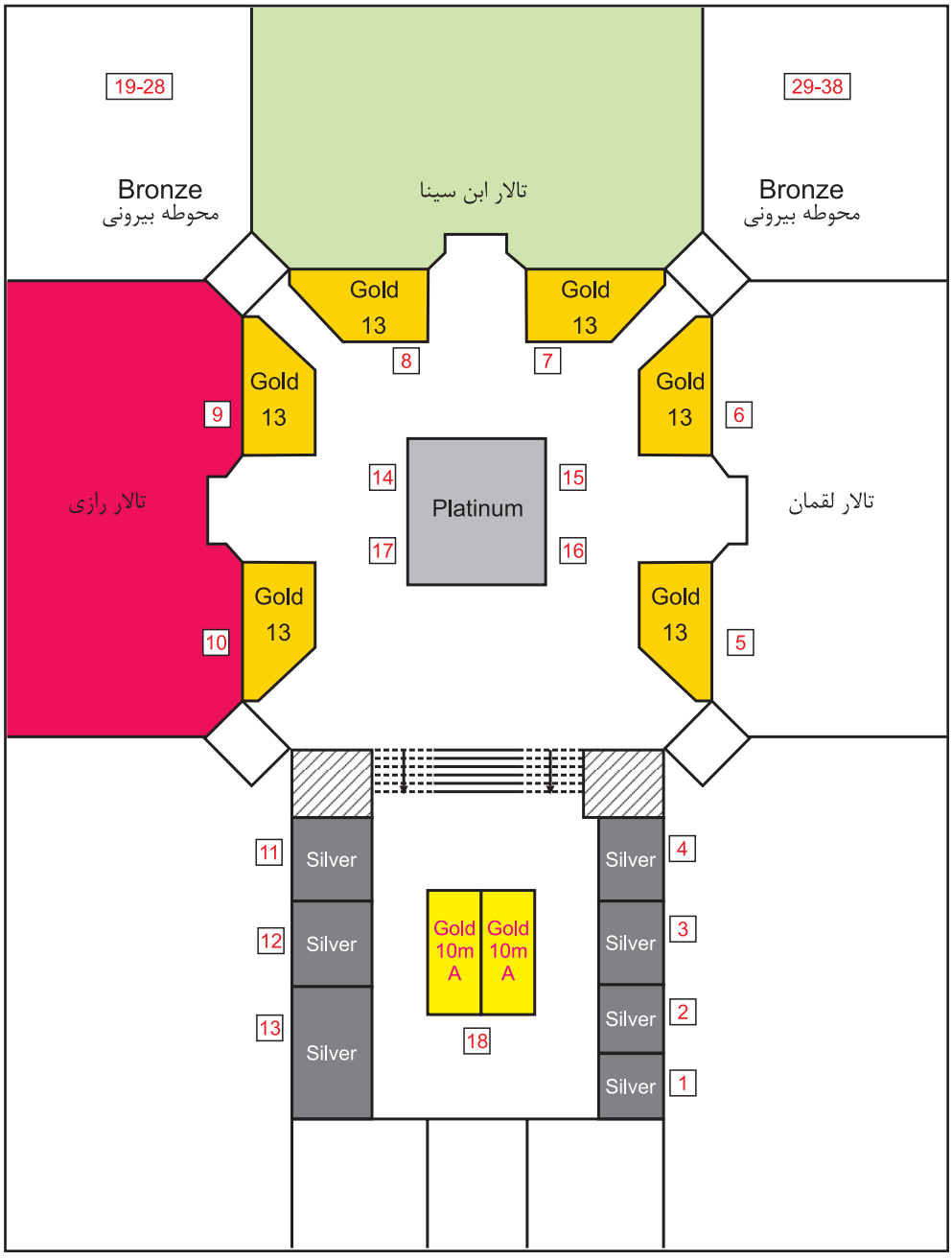
ORGANIZING COMMITTEE

Mohsen Soroush MD
SeyedehTahereh Faezi MD
Arman Ahmadzadeh MD
Mansour Salesi MD
Abdolrahman Rostamian MD
Peyman Motaghi MD
Hadi Karimzadeh MD
Marjan Khademian
Bahira Hamedi

ACCESS MAP

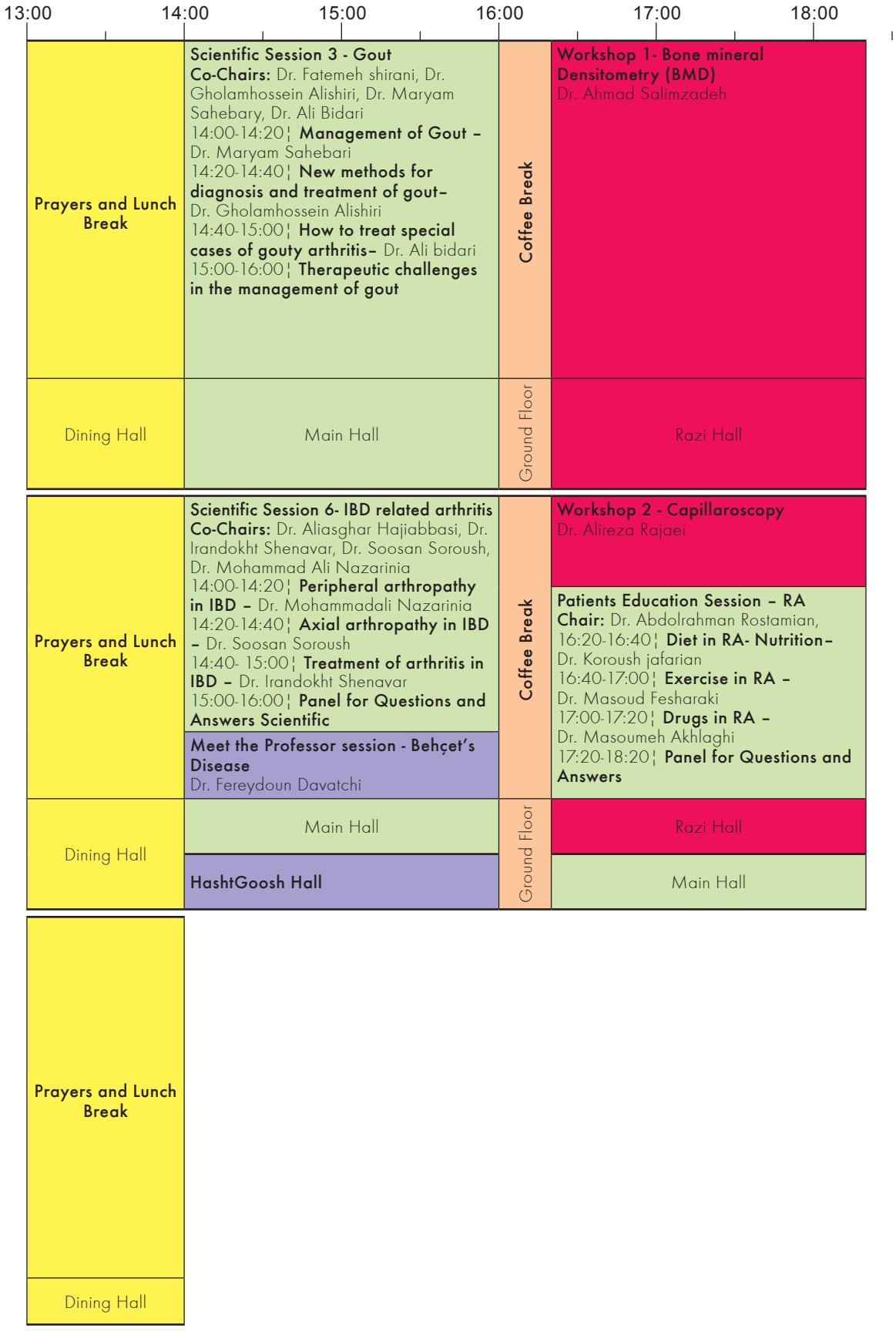

500 m
2000 ft
پیوند به نقشه
منطقه نظامی
دانشگاه اصفهان
تخت فولاد
گوله پارچه
معادت آباد
حسین آباد
هزارجریب

FLOOR MAP


19-28
29-38
Bronze
محوطه بیرونی
تالار ابن سینا
Bronze
محوطه بیرونی
Gold
13
8
Gold
13
7
Gold
13
9
Gold
13
6
تالار رازی
14
Platinum
15
17
16
تالار لقمان
Gold
13
10
Gold
13
5
11
Silver
Silver
4
12
Silver
Gold
10m
A
Gold
10m
A
Silver
3
13
Silver
Silver
2
18
Silver
1

TIME TABLE

		7:00 – 8:00	8:00 – 9:00	9:00 – 10:00	10:00 – 11:00	11:00 – 12:00	12:00 – 13:00
October 7 (Weds.)	Scientific Program	**Registration**	**Opening Ceremony**	**Special Lecture - New Treatments for Scleroderma** **Chair:** Dr. Ahmadreza Jamshidi **Lecturer:** Dr. Farhad Gharibdoost	**Scientific Session 1 - Oral Presentations** **Co-Chairs:** Dr.Zahra seidBonakdar, Dr. Avat feizi (6 presentations - each presentation 10 minutes)	**Poster presentation** / **Coffee Break**	**Scientific Session 2-ANCA- Associated Vasculits** **Co-Chairs:** Dr. Mahmoud Akbarian, Dr. Hossein Soleimani Saleh Abadi, Dr. Mehrzad Hajalilu, Dr. Mohammad Mousavi 11:00-11:20¦ **Granulomatosis with polyangiitis (GPA) –** Dr. Mohammad Mousavi 11:20-11:40¦ **Eosinophilic Granulomatosis with polyangiitis (EGPA) –** Dr. Hossein Soleimani Saleh Abadi 11:40-12:00¦ **Microscopic polyangiitis–** Dr. Mehrzad Hajalilu 12:00-13:00¦ **Panel for Questions and Answers**
	Place	Registration Pavilion	Main Hall	Main Hall	Main Hall	Ground Floor / First Floor	Main Hall
October 8 (Thurs.)	Scientific Program	Annual Meeting of Iranian Rheumatology Association	**Special Lecture – Autoinflammantory Diseases** **Chair:** Dr. Mohammadreza Hatef **Lecturer:** Dr. Mohammad Mahdi Emam	**Scientific Session 4 - Oral Presentations** **Co-Chairs:** Dr. Ali Mohammad Fatemi, Dr. Ahmadreza Zamani (6 presentations - each presentation 10 minutes)		**Poster presentation** / **Coffee Break**	**Scientific Session 5 –Intermittant Fever in Children** **Co-Chairs:** Dr. Vahid Ziaey, Dr. Farhad Salehzade, Dr. Seyed Reza Raeiskrami, Dr. Reza shiari 11:00-11:20¦ **FMF –** Dr. Farhad Salehzade 11:20-11:40¦ **PFAPA –** Dr. seyed reza Raeiskrami 11:40-12:00¦ **Approach to intermittent fever –** Dr. Vahid Ziaey 12:00-12:20¦ **Other intermittent Fever –** Dr. Reza shiari 12:20-13:00¦ **Panel for Questions and Answers**
	Place		Main Hall	Main Hall	Main Hall	Ground Floor / First Floor	**Main Hall**
October 9 (Fri.)	Scientific Program		**Special Lecture –New Treatments for RA** **Chair:** Dr. Mahmoud Akbarian **Lecturer:** Dr. Jafar Forghanizadeh	**Session 7–Osteoporosis** **Co-Chairs:** Dr. Ahmadreza Jamshidi, Dr. Karim Mowla, Dr. Arman Ahmadzadeh, Dr. Shafie Movaseghi 9:00-9:15¦ **Treatment of osteoporosis after fracture –** Dr. Karim Mowla 9:15-9:30¦ **Treatment of osteoporosis before menopause and in men –** Dr. Arman Ahmadzadeh 9:30-9:45¦ **Treatment strategies after failure of oral bisphosphonates –** Dr. Shafie Movaseghi 9:45-10:30¦ **Panel for Questions and Answers**		**Coffee Break**	**Scientific Session 8 - CNS involvement in lupus** **Co-Chairs:** Dr. Hadi Karimzadeh, Dr. Peyman Mottaghi, Dr. Mansour Salesi, Dr. Abbas Ghorbani, Ali Nowrouzi 11:00-11:20¦ **Rheumatologist view -** Dr. Mansour Salesi 11:20-11:40¦ **Neurologist view -** Dr. Abbas Ghorbani 11:40-12:00¦ **Radiologist view –** Dr. Ali Nowrouzi 12:00-13:00¦ **Panel for Questions and Answers**
	Place		Main Hall	Main Hall	First Floor		Main Hall


13:00
14:00
15:00
16:00
17:00
18:00
Prayers and Lunch Break
Scientific Session 3 - Gout
Co-Chairs: Dr. Fatemeh shirani, Dr. Gholamhossein Alishiri, Dr. Maryam Sahebary, Dr. Ali Bidari
14:00-14:20¦ Management of Gout – Dr. Maryam Sahebari
14:20-14:40¦ New methods for diagnosis and treatment of gout– Dr. Gholamhossein Alishiri
14:40-15:00¦ How to treat special cases of gouty arthritis– Dr. Ali bidari
15:00-16:00¦ Therapeutic challenges in the management of gout
Coffee Break
Workshop 1- Bone mineral Densitometry (BMD)
Dr. Ahmad Salimzadeh
Dining Hall
Main Hall
Ground Floor
Razi Hall
Prayers and Lunch Break
Scientific Session 6- IBD related arthritis
Co-Chairs: Dr. Aliasghar Hajiabbasi, Dr. Irandokht Shenavar, Dr. Soosan Soroush, Dr. Mohammad Ali Nazarinia
14:00-14:20¦ Peripheral arthropathy in IBD – Dr. Mohammadali Nazarinia
14:20-14:40¦ Axial arthropathy in IBD – Dr. Soosan Soroush
14:40- 15:00¦ Treatment of arthritis in IBD – Dr. Irandokht Shenavar
15:00-16:00¦ Panel for Questions and Answers Scientific
Meet the Professor session - Behçet's Disease
Dr. Fereydoun Davatchi
Coffee Break
Workshop 2 - Capillaroscopy
Dr. Alireza Rajaei
Patients Education Session – RA
Chair: Dr. Abdolrahman Rostamian,
16:20-16:40¦ Diet in RA- Nutrition– Dr. Koroush jafarian
16:40-17:00¦ Exercise in RA – Dr. Masoud Fesharaki
17:00-17:20¦ Drugs in RA – Dr. Masoumeh Akhlaghi
17:20-18:20¦ Panel for Questions and Answers
Dining Hall
Main Hall
HashtGoosh Hall
Ground Floor
Razi Hall
Main Hall
Prayers and Lunch Break
Dining Hall

SCIENTIFIC PROGRAM

Wednesday, October 7

7:00-8:00 **Registration**

8:00-8:30 **Opening Ceremony**

8:30-9:30 **Special Lecture**

Chair: Dr. Ahmadreza Jamshidi MD

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

New Treatments for Scleroderma

Lecturer: Farhad Gharibdoost

Professor of Rheumatology, Department of Rheumatology, Tehran University of Medical Sciences, Iran

9:30-10:30 **Scientific Session 1 - Oral Presentations**

Co-chairs: Dr. Zahre Seidbonakdar (*Professor of Rheumatology, Department of Rheumatology, Rheumatology, Isfahan University of Medical Sciences, Iran*)

Dr. Awat feizi (*Professor of Biostatistics, Department of Biostatistics and Epidemiology, Isfahan University of Medical Sciences, Iran)*

S1-1 The correlation of cathelicidin LL-37 with Pro-oxidant Antioxidant Balance (PAB) in systemic lupus erythematosus

Maryam Sahebari[1], Nafiseh Abdolahi[2], Zahra Rezaieyazdi [3]

1- Rheumatology Research center, Mahshad university medical scince

2- Bole and Joint and Connective tissue research center, Golestan medical university of science

3- Rheumatology Research center, Mahshad university medical scince

S1-2 Serum cartilage oligomeric matrix protein is a Predictor Biomarker of Severity and Joint Damage in Rheumatoid Arthritis

Massoud Saghafi[1], Mandana Khodashahi[1], Nayereh Saadati[1], Azita Azarian[2], Zahra Rezaieyadzi[1], Maryam Salehi[1,3], Maryam Sahebari[1]

1- Rheumatic diseases research center, Schoolof Medicine, Mashhad University of Medical Sciences, Mashhad, Iran

2- Department of Radiology, Ghaem Hospital, Mashhad University of Medical Sciences, Mashhad, Iran

3- Departments of Community Medicine, School of Medicine, and Research Center for Patient Safety, Mashhad University of Medical Sciences, Mashhad, Iran

S1-3 Evaluation of efficacy of Sodium Valproate low dose in Cervical and Lumbar Radicular pain management and It's relation with pharmacokinetic parameter alone and together with Celecoxib

Mona Ghasemian[1], Mohammad Hossein Mosaddegh Mehrjardi[2], Mohammad Bagher Owlia[3], Seyed Mojtaba Sohrevardi[1,*]

1- Department Of Clinical Pharmacy, School Of Pharmacy, Shahid Sadoughi University Of Medical Sciences, Yazd, Iran.

2- Department Of Pharmacology, School Of Pharmacy, Shahid Sadoughi University Of Medical Sciences, Yazd, Iran.

3- Department Of Internal Medicine, School Of Medicine, Shahid Sadoughi University Of Medical Sciences, Yazd, Iran.

S1-4 Association of nailfold digital capillary changes with disease activity and clinical and laboratory findings in patients with dermatomyositis

Saeedeh Shenavandeh, M.D[1], Maryam Zareinezhad, M.D[1]

1- Department of Rheumatology, Shiraz Medical School, Shiraz University of medical Sciences, Shiraz, iran.

S1-5 Phylogenic Study of OPG the Regulatory Receptor of Bone Remodeling in Mammalian

Seyyedeh Zahra Mousavi[1], Razieh Pourahmad[2]

1- Department of Genetic, Faculty of Science, University of Shahrekord Assistant Professor, Department of Genetic, Faculty of Science, University of Shahrekord

S1-6 Prevalence of complementary and Alternative Medicine in patients referring to clinics of rheumatology

Saeedeh Shenavandeh[1], Farkhondeh Hosseini[2]

1- Shiraz University of Medical Sciences, Departments of Internal Medicine, Division of Rheumatology

2- Shiraz University of Medical Sciences, Departments of Internal Medicine

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

11:00-13:00 **Scientific Session 2 - ANCA- Associated Vasculits**

Co-Chairs: Dr. Mahmoud Akbarian, Dr. Hossein Soleimani Saleh Abadi, Dr. Mehrzad Hajalilu, Dr. Mohammad Mousavi

S2-1 Granulomatosis with polyangiitis (GPA)

Mohammad Mousavi MD

Associate Professor of Rheumatology, Sharkord University of Medical Science, Sharkord, Iran.

S2-2 EosinophilicGranulomatosis with polyangiitis (EGPA)

Hossein Soleimani SalehAbadi MD

Associate Professor of Rheumatology, Department Of Rheumatology, Shahid Sadughi University Of Medical Sciences, Yazd, Iran.

S2-3 Microscopic polyangiitis

Dr. Mehrzad Hajalilu

Assistant Professor of Rheumatology, tabriz University of Medical Sciences, Tabriz, Iran

S2-4 Panel for Questions and Answers

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

14:00-16:00 **Scientific Session 3 – Gout**

Co-Chairs: Dr. Ali Bidari, Dr. Fatemeh shirani, Dr. Gholamhossein Alishiri, Dr. Maryam Sahebary, Dr. Ali Bidari

S3-1 Management of Gout

Dr. Maryam Sahebari

Associate Professor of Rheumatology, Mashad University of Medica Sciences, Mashad, Iran

S3-2 New methods for diagnosis and treatment of gout

Dr. Gholamhossein Alishiri

Associate Professor of Rheumatology, Baqyiatallah University, Iran

S3-3 How to treat special cases of gouty arthritis

Dr. Ali bidari

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

S3-4 Panel for Therapeutic challenges in the management of gout

16:00-16:20 **Coffee Break**

16:20-18:20 **Workshop 2 - Bone mineral Densitometry (BMD))**

Dr. Ahmad Salimzadeh

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

Thursday, October 8

8:00-9:00 **Special lecture**

Chair: Mohammadreza Hatef

Professor of Rheumatology, Rheumatic Diseases, Research Center, Mashhad University of Medical Sciences, Iran

Lecturer: Autoinflammantory Diseases

Dr. Mohamad Mahdi Emam *(Associate Professor of Rheumatology, Shahid Beheshti University of Medical Sciences, Iran)*

9:00-10:00 **Scientific Session 4 - Oral Presentations**

Co-Chairs: Dr. Ali Mohammad Fatemi *(Assistant Professor of Rheumatology, Isfahan University of Medical Sciences, Iran)*

Dr. Ahmadreza Zamani *(Associate Professor of Community Medicine, Isfahan University of Medical Science*

S4-1 Intravenous Methylprednisolone pulse therapy in severe ocular involvement of Behcet's disease; a double blind control study

Mastaneh Mohammadi, Farhad Shahram, Hormoz Shams, Shirin Asar, Farimah Ashofteh, Freydoun Davatchi

Behcet's Disease Unit, Rheumatology Research Center, Tehran University of Medical Sciences, Tehran, Iran

S4-2 Prevalence of Cognitive Disorders in Patients with Systemic Lupus Erythromatosus; a cross-sectional study in Tehran, Iran

Anousheh Haghighi

Associate Professor Of Iran University of Medical Sciences, Medicine Department

S4-3 Antibodies Against Zymogen-granule Membrane Glycoprotein2 in Behcet's Disease

Maassoumeh Akhlaghi[1], Bahar Sadeghi Abdollahi[1], Seyedeh Tahereh Faezi[1], Mahdi Mahmoodi[1], Fereydoun Davatchi[1]

1- Rheumatology Research Center, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran

S4-4 Antimalarial Ophthalmopathy in Iranian known cases of Lupus Erythematosus and Rheumatoid Arthritis.. Are these complications reversible?

Mohsen soroosh, Mahdi Dadpour, Soosan Soroosh

Department Of Rheumatology, Aja university of medical sciences, Tehran, Iran

S4-5 Determination of Killer Cell Immunoglobulin-Like Receptors (KIR) and Their HLA-Ligands Genes Variation in Iranian Patients with Systemic Sclerosis

Mahdi Mahmoudi[1], Soheila Sobhani[1], Faranak Fallahian[2], Shima Ghoroghi[1], Ahmad Reza Jamshidi[1], Shiva Poursani[1], Masoumeh Dolati[2], Zahra Hosseinpour[1], Farhad Gharibdoost[1]

1- Rheumatology Research Center, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran.

2- Cellular and Molecular Research Center, Qom University of Medical Sciences, Qom, Iran

S4-6 Survivin is over-expressed in skin fibroblasts of systemic sclerosis patients

Mohammad Bagher Mahmoudi[2], Ehsan Farashahi[2], Farhad Gharibdoost[1], Ahmad Reza Jamshidi[1], Mohamaad Hasan Shaeikhha[2], Saeideh Jafarinejad F[1], Mahdi Mahmoudi[1]

1- Rheumatology Research Center, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran.

2- Genetic Department, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

10:00-10:30 **Annual Meeting of Iranian Rheumatology Association**

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

11:00-13:00 **Scientific Session 5 - Intermittant Fever in Children**

Co-Chairs: Dr. Vahid Ziaey, Dr. Farhad Salehzade, Dr. Seyed Reza Raeiskrami, Dr. Reza shiari

S5-1 FMF Dr. Farhad Salehzade

Assistant Professor of Pediatric Rheumatology, Tehran University of Medical Sciences, Iran

S5-2 PFAPA

Dr. seyedreza Raeiskrami

Assistant Professor of Pediatric Rheumatology, Tehran University of Medical Sciences, Iran

S5-3 Approach to intermittent fever

Dr. Vahid Ziaey

Assistant Professor of Pediatric Rheumatology, Tehran University of Medical Sciences, Iran

S5-4 Other intermittent Fever

Dr. Reza shiari

Associate Professor of Pediatric Rheumatology, Shahid Beheshti University of Medical Sciences, Iran

S5-5 Panel for Questions and Answers

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

14:00-16:00 **Scientific Session 6 - IBD related arthritis**

Co-Chairs: Dr. Aliasghar Hajiabbasi, Dr. Irandokht Shenavar, Dr. Soosan Soroush, Dr. Mohammad Ali Nazarinia

S6-1 Peripheral arthropathy in IBD

Dr. Mohammadali Nazarinia

Associate Professor of Rheumatology, Shiraz University of Medical Sciences, Iran

S6-2 Axial arthropathy in IBD

Dr. Soosan Soroush

Associate Professor of Rheumatology, AJA University, Iran

S6-3 Treatment of arthritis in IBD

Dr. Irandokht Shenavar

Assistant Professor of Rheumatology, Iran University of Medical Sciences, Iran

S6-4 Panel for Questions and Answers

14:00-16:00 **Meet the Professor session - Behçet's Disease**

Fereydoun Davatchi

Emeritus Professor of Rheumatology, Rheumatology Research Center, Tehran University of Medical Sciences, Iran

16:00-16:20 **Coffee Break**

16:20-18:20 **Workshop 2 - Capillaroscopy**

Dr. Alireza Rajaei

Associate Professor of Rheumatology, Shahid Beheshti University of Medical Sciences, Iran

16:00-18:00 **Patients Education – Rheumatoid Arthritis (RA)**

Chair: Dr. Abdolrahman Rostamian *(Associate Professor of Rheumatology, Rheumatology, Tehran University of Medical Sciences, Iran)*

E1-1 Diet in RA- Nutrition

Dr. Koroush jafarian

Assistant Professor of Nutrition, Faculty of Nutrition Sciences and Dietetics, Tehran University of Medical Sciences, Iran

E1-2 Exercise in RA

Dr. Masoud Fesharaki

Assistant professor of export medicine, Tehran University of Medical Sciences, Iran

E1-3 Panel for Questions and Answers

Friday, October 9

8:00-9:00 **Special Lecture**

Chair: Dr. Mahmoud Akbarian

Professor of Rheumatology, Tehran University of Medical Sciences, Iran

New Treatments for RA

Lecturer: Jafar Forghanizadeh

Professor of Rheumatology, Iran University of Medical Sciences, Iran

9:00-10:30 **Scientific Session 7- Osteoporosis**

Co-Chairs: Dr. Ahmadreza Jamshidi *(Professor of Rheumatology Rheumatology Research Center, Tehran University of Medical Sciences, Iran)*

Dr. Karim Mowla *(Associate Professor of Rheumatology, Ghondishapoor University of Medical Sciences, Ahwaz, Iran)*

Dr. ArmanAhmadzadeh *(Associate Professor of Rheumatology, Shahid Beheshti University of Medical Sciences, Iran)*

Dr. ShafieMovaseghi *(Associate Professor of Rheumatology, Rheumatology Research Center, Tehran University of Medical Sciences, Iran)*

S7-1 Treatment of osteoporosis after fracture

Dr. KarimMowla

Associate Professor of Rheumatology, Ghondishapoor University of Medical Sciences, Ahwaz, Iran

S7-2 Treatment of osteoporosis before menopause and in men

Dr. Arman Ahmadzadeh

Associate Professor of Rheumatology, Shahid Beheshti University of Medical Sciences, Iran

S7-3 Treatment strategies after failure of oral bisphosphonates

Dr. ShafieMovaseghi

Associate Professor of Rheumatology, Rheumatology Research Center, Tehran University of Medical ciences, Iran

S7-4 Panel for Questions and Answers

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

11:00-13:00 **Scientific Session 8 - CNS involvement in lupus**

Co-Chairs: Dr. HadiKarimzadeh *(Associate Professor of Rheumatology, Isfahan University of Medical Sciences, Iran)*

Dr. PeymanMottaghi *(Associate Professor of Rheumatology, Isfahan University of Medical Sciences, Iran)*

Dr. Mansour Salesi *(Associate Professor of Rheumatology, Isfahan University of Medical Sciences, Iran)*

Dr. Abbas Ghorbani *(Associate Professor of Neurology Isfahan University of Medical Sciences, Iran)*

Dr. Ali Nowrouzi *(Assistant Professor of Radiology Isfahan University of Medical Sciences, Iran)*

S8-1 Rheumatologist view

Dr. MansoorSalesi

Associate Professor of Rheumatology, Isfahan University of Medical Sciences, Iran

S8-2 Neurologist view

Dr. Abbas Ghorbani

Associate Professor of Neurology Isfahan University of Medical Sciences, Iran

S8-3 Radiologist view

Dr. Ali Nowrouzi

Assistant Professor of Radiology, Isfahan University of Medical Sciences, Iran

S8-4 Panel for Questions and Answers

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

POSTER PROGRAM

Wednesday, October 7

P1-1 Toll-like receptor 2 gene polymorphisms in Azari patients with Behcet's Disease

Alireza Khabbazi[1], Leila Emrahi[1]

1- Connective Tissue diseases Research Center, Tabriz University of Medical Sciences, Tabriz, Iran

P1-2 TNF-α alpha-induced protein 3 gene polymorphisms in Azari patients with Behcet's Disease

Alireza khabbazi

Connective tissue disease center, Tabriz university of medical science, Tabriz, Iran TNF-α alpha-induced protein 3 gene polymorphisms in Azari patients with Behcet's Disease

P1-3 Clinical Manifestations Of Systemic Lupus Erythematosus In Children

Sousan Kolahi[1], Farid Karkon Shayan[1], Alireza Khabbazi[1], Hadise Kavandi[1]

1- Connective Tissue Diseases Research Center, Tabriz University of Medical Sciences

P1-4 Depression In patients With Rheumatoid Arthritis: Covariates and Determinants

Nahid Kianmehr[1], Farshad Naserifar[2], Mahgol Farjadnia[3], Mani Mofidi[4], Anousheh Haghighi[5]

1,4- Associate Professor Of Iran University of Medical Sciences, Medicine Department

2- Internist

3- General Practitioner

4- Associate Professor Of Iran University of Medical Sciences, Emergency Department

P1-5 Plasmapheresis in Recently Diagnosed Systemic Sclerosis, a Successful Experience

Mowlia, H Soleymani, A Dehghan

Professor Of Medicine, Shahid Sadoughi University Of Medical Sciences, Yazd, Iran, Corresponding

Assistant Professor, Shahid Sadoughi University Of Medical Sciences, Yazd, Iran

Assistant Professor, Shahid Sadoughi University Of Medical Sciences, Yazd, Iran

P1-6 Update on the Pathogenesis of Rheumatoid arthritis: Gene analysis

Ramezan Ali Ataee[1] ,Gholam Hossein Alishiri[2] ,and Mohammad Hossein Ataee[3]

1- Department of Medical Microbiology, Faculty of Medicine, Baqiyatallah University of Medical Sciences, Tehran, Iran.

2- Department of Rheumatology, Faculty of Medicine, Baqiyatallah University of Medical Sciences, Tehran, Iran.

3- Applied Microbial Research Center, Baqiyatallah University of Medical Sciences, Tehran, Iran.

P1-7 Unusual overlap diseases / A case series

Roshanak Hasheminasab Zavareh, Ali Javadzadeh, Nahid Kianmehr

1- assistant professor-general internal medicine, iran university

2- assistant professor- rheumatology department, iran university

3- associated professor- rheumatology department, iran university

P1-8 Detection of Epstein-Barr nuclear antigen 1 (EBNA1) in synovial fluid of Rheumatoid arthritis patients

Mahabadi M[1], Faghihloo E[2], Alishiri G H[3], Ramezan Ali Ataee[1]*

1- Department of Medical Microbiology, Microbial Research Center, Baqiyatallah University Of Medical

2- Department of Virology, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran.

3- Department of Rheumatology, Baqiyatallah University of Medical Sciences, Tehran, IR Iran

P1-9 Analysis of the gene expression of Sulf1 and sulf2 in fibroblasts of the skin biopsy of patients with systemic sclerosis

Mohammad Bagher Mahmoudi[1], Mahdi Mahmoudi[2], Ehsan Farashahi[1], Ahmad Reza Jamshidi[2], Mohammad Hasan Sheikhha[1], Elham Karimizadeh[2], Farhad Gharibdoost[2]

1- Genetic Department, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

2- Rheumatology Research Center, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran

P1-10 Expression of IL-4 and TGF-β in Iranian patients with Ankylosing spondylitis and their relation with disease activity

Farin Vaez[2], Ali Farazmand[2], Ahmad Reza Jamshidi[1], Mahsa Mohammad Amoli[3], Zaynab Tabrizi[4], Mahsa Asadbek[2], Mahdi Mahmoudi[1*]

1- Rheumatology Research Center, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran

2- Department of cell and molecular biology, University of Tehran, Tehran, Iran

3- Endocrinology and Metabolism Research Center, Tehran University of Medical Sciences, Tehran, Iran

4- Immunology Department, Shahid Sadoughi University of Medical Sciences (International Campus), Yazd, Iran

P1-11 Expression of proinflammatory cytokines IL-17, IL-1β, TNF-α, IFN-γ in Iranian patients with Ankylosing spondylitis and their correlation with disease activity

Mahsa Asadbek[2], Ali Farazmand[2], Ahmad Reza Jamshidi[1], Mahsa Mohammad Amoli[3], Zaynab Tabrizi[4], Farin Vaez[2], Mahdi Mahmoudi[1*]

1- Rheumatology Research Center, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran

2- Department of cell and molecular biology, University of Tehran, Tehran, Iran

3- Endocrinology and Metabolism Research Center, Tehran University of Medical Sciences, Tehran, Iran

4- Immunology Department, Shahid Sadoughi University of Medical Sciences (International Campus), Yazd, Iran

P1-12 Prevalence of blood groups among patients with systemic lupus erythmatous and rheumatoid arthritis.

Amir Nik[1], Maryam Sahebari[1], Zahra Rezaieyazdi[1]

1- Rheumatic Diseases Research Center, School of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran.

P1-13 Evaluating the Prevalence and Type of Pulmonary Involvement in Ankylosing Spondylitis

Simin Almasi[1], Nader Rezaei[2], Kazem Zamani[3], Ali Khalooei[4]

1- Assistant Professor of Rheumatology, Department of Rheumatology, Firoozgar hospital, Iran University of Medical Sciences, Tehran, Iran.

2- Assistant Professor of Pulmonary Medicine, Department of Pulmonary Medicine, Firoozgar Hospital, Iran University of Medical Science, Tehran, Iran.

3- Resident of Internal Medicine, Department of Rheumatology, Firoozgar Hospital, Iran University of Medical Science, Iran, Tehran.

4- Assistant professor of Community Medicine, Department of Community Medicine, School of Medicine, Kerman University of Medical Sciences, Kerman, Iran.

P1-14 *Acetyltransferase* gene Expression in Peripheral Blood Mononuclear Cells (PBMCs) in Patients with Rheumatoid Arthritis

Alaleh Ghasemi[1], Vahideh Hassanzadeh[1], Ali Farazmand[1], Farhad Shahram[2], Nahid Aryaeian[3], Mahdi Mahmoudi[2]

1- Department of cell and molecular biology, University of Tehran, Tehran, Iran

2- Rheumatology Research Center, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran

3- Department of Nutrition, School of Public Health, Iran University of Medical Sciences, Tehran, Iran

Thursday, October 8

P2-1 The Year in Osteoporosis and Bone Metabolism

Sohrab Fallahi, M.D., F.A.C.P., F.A.C.R.

Clinical Assistant Professor of Medicine Uni. Of Alabama at Birmingham, Montgomery program Montgomery labama U.S.A.

P2-2 A New Future of Psoriatic Arthritis (PA)

Sohrab Fallahi, M.D., F.A.C.P., F.A.C.R.

Clinical Assistant Professor of Medicine University of Alabama at Birmingham, Montgomery Program, U.S.A.

P2-3 New and Emerging Concepts in Therapeutic Approaches to Osteoporosis

Sohrab Fallahi, M.D., F.A.C.P., F.A.C.R.

Clinical Assistant Professor of Medicine University of Alabama at Birmingham, Montgomery Program Montgomery Alabama, U.S.A.

P2-4 Diagnostic value of Anti-Saccharomyces cerevisiae antibodies (ASCA) in Behcet's disease

Mohammad Hassan joker

Departments of Rheumatology, School of Medicin, Mashhad University of Medical Sciences, Mashhad, Iran Diagnostic value of Anti-Saccharomyces cerevisiae antibodies (ASCA) in Behcet's disease

P2-5 Iliopsoas Bursitis—An Unusual Presentation of Rheumatoid Arthritis

Mozhdeh zabihiyeganeh

Department of Rheumatology, Rasoule Akram hospital, Iran University of Medical Sciences, Tehran, Iran

P2-6 Evaluation of oxidant and anti-oxidant balance in Behcet disease and it's correlation with disease activity

Seyyedeh Zahra Mirfeizi[1*], Mohammad Hasan Jokar[2], Vahid Yahyavi Alvar[1]

1- Rheumatic Diseases Research Center, School of Medicin, Mashhad University of Medical Sciences, Mashhad, Iran

2- Departments of Rheumatology, School of Medicin, Mashhad University of Medical Sciences, Mashhad, Iran

P2-7 The effect of progressive muscle relaxation on patients' anxiety with rheumatoid arthritis

Rezvan Yazdani[1], Karim Mowla[3], Sedigheh Faiazi[2], Vahab Khosravi[4]

1- Msc of nursing, Shahrekord University of Medical Sciences, Shahrekord, Iran

2- Dept. of Nursing, School of Nursing and Midwifery, Ahvaz Jundishapour University of Medical Sciences, Ahvaz, Iran

3- Associate Professor of Internal Medicine. School of Medicine, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

4- Shahrekord University of Medical Sciences, Shahrekord, Iran Corresponding Author: Shahrekord University of Medical Sciences, Shahrekord, Iran

P2-8 Study of Knowledge and Proficiency of General Physicians in Management of Patients with Low Back Pain

Mahnaz Abbasi[1], Zohreh Yazdi[2], Azadeh Heshmat[3]

1- Associate Professor Of Rheumatology, Metabolic Disease Research Center, Qazvin University Of Medical Sciences, Qazvin, Iran

2- Associate Professor Of Occupational Medicine, Metabolic Disease Research Center, Qazvin University Of Medical Sciences, Qazvin, Iran

3- General Physician, Qazvin University Of Medical Sciences, Qazvin, Iran

P2-9 Study of Sleep Quality, Quality of Life and Insomnia among Patients with Chronic Low Back Pain Compared to Normal Individuals

Mahnaz Abbasi[1], Zohreh Yazdi[2], Hasti Fatorechi[3]

1- Associate Professor Of Rheumatology, Metabolic Disease Research Center, Qazvin University Of Medical Sciences, Qazvin, Iran

2- Associate Professor Of Occupational Medicine, Metabolic Disease Research Center, Qazvin University Of Medical Sciences, Qazvin, Iran

3- General Physician, Qazvin University Of Medical Sciences, Qazvin, Iran

P2-10 Alkaptonuria: Case report

Nayyereh Saadati[1], Mandana Khodashahi[2], Bahram Naghibzadeh[3]

1- Associate Professor, Department of internal Medicine, Rheumatology, Ghaem Hospital, Medical Sciences University of Mashhad, Iran

2- Fellow Ship Rheumatology, Department of Internal Medicine, Rheumatology, Ghaem Hospital, Medical Sciences University of Mashhad, Iran

3- Researcher, Rheumatic Disease Research Center (RDRC), Ghaem Medical Center, Mashhad, Iran

P2-11 Evaluation of Hospitalized children with Henoch–Schöenlein purpura

Shokoufeh Ahmadipour[1], Azam Mohsenzadeh[1], Saeedeh Ahmadipour[2]

1- Pediatrics department, Lorestan University of medical sciences, Khorramabad, Iran

2- Pharmacosiotic's Student, Isfahan University of medical sciences, Isfahan, Iran

P2-12 The Study of Subjective Norms on Self-Care Behaviors among Knee Osteoarthritis Patients

Sakineh Gerayllo[1], Mohammad ali Morowatisharifabad[2], Abdurrahman Charkazi[3], Zohreh Karimiankakolaki[4]

1- Corresponding Author: MSc Health Education, Public Health Department, School of Health, Golestan University of Medical Sciences, Gorgan, Iran. Email: gerayllo65@yahoo.com

2- Associate Professor, Department of Disease Control, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

3- Assistant Proffesor, PhD in Health Education, Public Health Department, School of Health, Golestan University of Medical Sciences, Gorgan, Iran

4- MS.c Health Education, Public Health Department, Isfahan University of Medical Sciences, Isfahan, Iran

P2-13 Evaluation of patients with Kawasaki disease in Children's Hospital of Khorramabad 74-93

Azam Mohsenzadeh. Ahmadipour SH

Lorestan University of Medical Sciences

ORAL PRESENTATIONS

S1-1

The correlation of cathelicidin LL-37 with Pro-oxidant Antioxidant Balance (PAB) in systemic lupus erythematosus

Maryam Sahebari[1], Nafiseh Abdolahi[2], Zahra Rezaieyazdi[3]

[1] Rheumatology Research center, Mahshad university medical scince
[2] Bole and Joint and Connective tissue research center, Golestan medical university of science
[3] Rheumatology Research center, Mahshad university medical science

Background: Cathelicidin LL37, an endogenous antimicrobial peptide, has recently been concerned in the pathogenesis of autoimmune diseases. To assess whether serum LL37 reflects disease activity, we measured the serum levels of LL37 in SLE patients with active and inactive phase of disease as compared to healthy controls. We also analyzed the correlation of the serum levels of LL37 and pro oxidant-Antioxidant (PAB) balance with the clinical characteristics of the patients.

Methods: The study population consisted of 50 SLE patients and 28 healthy controls. Of those studied, 39 patients had active, and 11 patients had inactive disease. The serum levels of cathelicidin LL37 was measured by ELISA, and the clinical and serological parameters were assessed according to routine procedures.

Results: The main age of the patients was 31.38 (9.04) years. LL37 hasn't showed any significant difference between patients and controls (P = 0.31). LL37 did not correlate with disease duration, C3, C4, anti-ds DNA, and the amount of proteinuria. Our results showed significantly lower levels of LL37 in SLE patients with active (47.91±19.81ng/ml) than those with inactive disease (61.91±21.78ng/ml) (P=0.04) In active patients, we have found a positive correlation between LL37 and SLEDAI (p=0.01 r= 0.4) and negative correlation between LL37 and C3 (p<0.01 r= -0.43). We found no significant difference in levels of PAB between SLE patients (90.42±34.16 HK) and controls (86.97 ±25.69 HK) (p=0.41). Also, there was no significant relationship in the levels of PAB between patients with active (93.29±34.16 HK) and inactive disease (80.26±33.72HK) (p=0.27). We found no significant correlation between the levels on PAB and SLEDAI score as well as its indicators. However we found significant positive correlation between the levels of LL37 and the levels of PAB in our SLE subjects (correlation coefficient=0.31, p<0.01)

Conclusion: In brief, although imbalances in NETosis pathway and PAB play an important role in the pathogenesis of systemic lupus erythematosus, moreover, the current study demonstrated that serum values is not considered as a good marker of disease development and does not correlate with laboratory parameters on SLE except in new patients.

Keywords: lupus, ll37. prooxidant antioxidant balance (PAB)

S1-2

Serum Cartilage Ologumetric Matrix Protein is a Predictor Biomarker of Severity and Joint Damage in Rheumatoid Arthritis

Massoud Saghafi[1], Mandana Khodashahi[1], Nayyereh Saadati[1], Azita Azarian[2], Zahra Rezaieyazdi[1], Maryam Salehi[1,3], Maryam Sahebari[1]

[1] Rheumatic diseases research center, School of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran
[2] Department of Radiology, Ghaem Hospital, Mashhad University of Medical Sciences, Mashhad, Iran
[3] Departments of Community Medicine, School of Medicine, and Research Center for Patient Safety, Mashhad University of Medical Sciences, Mashhad, Iran

Introduction: Rheumatoid arthritis (RA) is one of the most frequent autoimmune chronic inflammatory diseases. Various studies have been conducted to find the role of different biomarkers in the disease progress. Auto antibodies of rheumatoid factor (RF) and anti-cyclic citrullinated peptide antibody (anti-CCP) are used for diagnosis, and imaging techniques are also used for diagnosis and severity of joint disease in RA. Detection of a simple serum auto antibody that contributes the diagnosis, severity, and joint damage in RA is an important issue. Cartilage oligomeric matrix protein (COMP) is a non-collagen glycoprotein produced by cartilage and synovium, tendon and meniscus. The aim of this study was to investigate association of serum level of COMP in diagnosis, predicting severity and joint cartilage damage in RA.

Methods: This cross sectional study was approval by ethics committee of our university and was conducted in years 2014-2015. 150 individuals were compared in 4 groups: Early RA (50 patients), late RA (50 patients), grade II and III osteoarthritis (OA, 25 patients), and healthy controls (25 individuals). All participants were examined by an expert rheumatologist and the patients were diagnosed according to the ACR criteria. Serum COPM level was assessed by sandwich ELISA technique (Anamor, Sweden). ESR, CRP, and serum RF, anti CCP and COMP were recorded in the checklist. X-Ray films of the knees and hands were reviewed by an expert radiologist. The results were analyzed by SPSS software version 16.

Results: Mean Larsen score for joint erosion and damage was 13.5±7.5 in early RA and 16.4±9.7 in late RA (P=0.093). In OA group, 17 patients had grade II (68%) and 8 patients grade III (32%) of the joint radiologic manifestations. Mean COMP levels were 18±10.6 U/L in early RA, 19.3±9.6 U/L in late RA, 10.9±4.5 U/L in OA and 4.2 ± 3.8 U/L in healthy controls (P<0.000). Mean anti-CCP levels were 129±92 U/L in early RA, 98±86 U/L in late RA, 3.6±2.4 U/L in OA, and 3±2.4 in healthy controls (P<0.000). There was a positive correlation between anti-CCP and COMP levels in patients with late RA (P<0.000, r=0.521) as well as in early RA (P<0.000, r=0.732).

Conclusion: This study provides evidences of the potential role of COMP as a biomarker of joint damage in patients with RA.

Keywords: Rheumatoid arthritis, Cartilage oligomeric matrix protein (COMP), Anti-CCP, Joint damage.

S1-3

Evaluation Of Efficacy Of Sodium Valproate low dose In Cervical And Lumbar Radicular Pain Management And It's Relation With Pharmacokinetic Parameter Alone And Together With Celecoxib

Mona Ghasemian[1], Mohammad Hossein Mosaddegh Mehrjardi[2], Mohammad Bagher Owlia[3], Seyed Mojtaba Sohrevardi[1,*]

[1] Department Of Clinical Pharmacy, School Of Pharmacy, Shahid Sadoughi University Of Medical Sciences, Yazd, Iran.
[2] Department Of Pharmacology, School Of Pharmacy, Shahid Sadoughi University Of Medical Sciences, Yazd, Iran.
[3] Department Of Internal Medicine, School Of Medicine, Shahid Sadoughi University Of Medical Sciences, Yazd, Iran.

Aim: Radiculopathy due to lumbar or cervical disc disease is the most common chronic neuropathic pain in adults (more than 30 yaers of age). Sodium valproate (VPA) is an anti-convulsant medicine which has been efficient in ameliorating neuropathy signs. Though the available evidence for that of minimum effective dose is not enough and sufficient. The aim of present study was evaluation of low dose of sodium valproate on radicular pain and the effect of celecoxib (cyclooxygenase-2 inhibitor) and valproate coadministration on VPA pharmacokinetics.

Method: In this double blind clinical trial study, 87 patients from men and women who were between 20-70 years old and their lumbar or cervical radicular pain were confirmed by rheumatology specialist, were selected and have been randomly allocated into 3 study groups (all subjects demographic factors distribution was balanced in 3 groups): 40 have received sodium valproate 200 mg/day and celecoxib 100 mg/day and a nonspecific analgesic acetaminophen 500 mg PRN as rescue medication (group A), and 7 have received sodium valproate and acetaminophen (group B as pilot) and third group (40 patients) have received placebo, celecoxib and acetaminophen (group C). Quantitative assessment of pain was done by visual analogue scale (VAS) prior to perform the intervention and after 10 days (Treatment duration was 10 days). After 5 half-life of valproate following initiation of therapy, blood sample has been taken for determining mean through concentration. The method of analysis of drug plasma concentration was gas chromatography with flame ionization detector. After finishing therapy, pain intensity and number of acetaminophen administration during past 10 days have been recorded by patients. Evaluation of plasma concentration of sodium valproate and that of efficacy on pain score relationship by comparing visual analog scale before and after the therapy with controlling the group by T test was done. Likewise effect of celecoxib co-administration on VPA pharmacokinetic was assessed.

Results: group A and C have demonstrated significant alleviation in mean VAS score; -21.97±25.41, -14.39±23.03 respectively (P value< 0.001), mean VAS score reduction of group B was -17.00±20.8 but this reduction was not statisticaly significant (P value= 0.07). The mean plasma concentration of VPA in groups A and B has been recorded respectively as follows: 26.9±13.5 and 36.01±2.69, no statisticaly significant diference has been observed between these two groups (P value= 0.08). Drug clearance has been calculated for these two groups; 0.26±0.09, 0.18±0.01 respectively (P value< 0.001).

Conclusion: Low dose of valproate sodium demonstrated good efficacy in lumbar and cervical radicular pain management. Celecoxib increased clearance of valproate and created alteration in some other pharmacokinetic parameters.

Keywords: radicular pain, sodium valproate, low dose, celecoxib, pharmacokinetic

S1-4

Association of nailfold digital capillary changes with disease activity and clinical and laboratory findings in patients with dermatomyositis

Saeedeh Shenavandeh, M.D[1], Maryam Zareinezhad, M.D[1]

[1] Department of Rheumatology, Shiraz Medical School, Shiraz University of medical Sciences, Shiraz, iran.

Association of nailfold digital capillary changes with disease activity and clinical and laboratory findings in patients with dermatomyositis

Background: Dermatomyositis (DM) is a chronic and idiopathic inflammatory disorder involving the skin and muscles. Microvascular involvement is a remarkable characteristic in DM. Small vessels could be easily visualized at nailfolds. Nailfold Capillaroscopy (NC) is a noninvasive, reproducible, and inexpensive imaging technique for evaluating microcirculation in vivo. It is accomplished by magnification of microvascular structures. Commonly, DM shows characteristic patterns in NC. The present study aimed to investigate the Nailfold Capillaroscopy (NC) features of the patients with dermatomyositis (DM) and its correlation with their disease activity indices, physical findings, and laboratory results.

Materials and Methods: The present cross-sectional study was conducted on 27 DM patients above 16 years old who had referred to outpatient rheumatology clinics of Shiraz University of Medical Sciences from 2012 through 2013. For each participant, a questionnaire was completed that included items on demographic characteristics, disease duration, a checklist of inclusion and exclusion criteria, the results of the disease activity evaluation, and NC features. In order to evaluate the disease activity, Myositis Disease Activity Assessment Visual Analog Scale (VAS) (MYOACT) section of Myositis Disease Activity Assessment Tool (MDAAT) version 2-2005 was used. The following parameters were analyzed in each patient by NC: (1) Dimension of the larger part of the capillary loop (2) avascular areas (3) capillary loop length (4) presence of microhemorrhages (5) blood flow patterns (6) distribution of capillaries (7) mean number of capillaries in one millimeter, and (8) morphology. According to these characters, we had early scleroderma, active scleroderma and late scleroderma pattern or nonspeciefic pattern of capillaroscopy. Nailfold capillaroscopy and calculation of disease activity indices were performed separately for all the patients by two rheumatologists who were blinded to each other's results. Statistical analyses were performed using chi-square and Mann-Whitney U tests.

Results: The mean age of the patients was 39.2±14.1 years with the mean disease duration of 13.1±15.2 months (range, 1 to 72 months). Myopathic electromyography (EMG) findings showed a strong association with scleroderma pattern ($P<0.015$). However, disease activity in each organ system and global disease activity showed no significant association with scleroderma pattern and other NC findings.

Conclusion: This study revealed no significant relationship between disease activity indices and NC features. Thus, it may be more precise to interpret the results of NC in conjunction with other physical and laboratory findings.

S1-5

Phylogenic Study of OPG the Regulatory Receptor of Bone Remodeling in Mammalian

Seyyedeh Zahra Mousavi[1], Razieh Pourahmad[2]

[1] M.Sc. student, Department of Genetic, Faculty of Science, University of Shahrekord
[2] Assistant Professor, Department of Genetic, Faculty of Science, University of Shahrekord

Aim: Osteoporosis is a multifactorial skeletal disease and is considered as a hidden epidemic for modern world. This silent disease characterized by low bone mineral density, which leads to increase of bone fragility and of fracture risk. Osteoporosis is influenced by genetic and environmental factors. The OPG gene found on chromosome 8q23–24 encoding osteoprotegerin (OPG), is one of the most important candidate gene in the pathogenesis of osteoporosis. The single nucleotide polymorphisms (SNPs) in the OPG gene could contribute to genetic effects on BMD and osteoporosis. OPG secreted by osteoblasts cells in the bone micro-environment is the naturally occurring inhibitor of osteoclast differentiation and is a negative regulator of osteoclastogenesis that prevent activation of osteoclast precursors. The aim of this work was to study of conservity of OPG gene between mamals.

Method: Because of the importance of the OPG in bone remodeling, it compared phylogenycally in mammals. OPG protein sequence in 9 mamals (homosapien -Pongo abelii- Nomascus leucogenys- Pan troglodytes- Macaca mulatta- Chlorocebus sabaeus- Macaca fascicularis- Papio Anubis- Equus caballus) were searched through bioinformatic NCBI databank. After preparing this list and set its format to check in the Clustal Omega software that is one of the reliable tools for analysis and comparison nucleic acid or protein sequence analysis, the protein sequences were investigated Bioinformatically.

Results: The results indicate high conservity of this protein sequence (over 90%) in the Mammals listed. Probably due to the important regulatory role of this gene in bone regmodeling its product has maintained its conservity.

Conclusion: The OPG is a high conserve gene between mamals and is one of the most important candidate gene in the pathogenesis of osteoporosis. Due to importance of OPG gene, study the SNPs in it was recommended in Osteoporosis patients.

Keywords: mammals, OPG, Osteoporosis, Phylogeny

S1-6

Prevalence of complementary and Alternative Medicine in patients referring to clinics of rheumatology

Saeedeh Shenavandeh[1], Farkhondeh Hosseini[2]

[1] Shiraz University of Medical Sciences, Departments of Internal Medicine, Division of Rheumatology
[2] Shiraz University of Medical Sciences, Departments of Internal Medicine
Corresponding Author: Saeedeh Shenavandeh, MD Shiraz University of Medical Sciences, Namazee Hospital

Background: Rheumatologic diseases have experienced main developments in their medical management during the last decades. The overall effect of pain and mental health issues, adverse effects of conventional medications, and the emotional and psychological burden of having a chronic disease, should be cited as reasons for increased usage of Complementary and Alternative Medicine. In this study, we aimed to perform an epidemiological study in order to evaluate the prevalence of Complementary and Alternative Medicine use in patients referring to Rheumatology Clinics of Shiraz University of Medical Sciences. Also we evaluated the effect of these types of treatment on their regular recommended visits to their rheumatology clinics.

Material &Method: In this cross-sectional study, 100 randomly selected patients with rheumatologic disease including Rheumatoid Arthritis, Systemic Lupus Erythematosus, vasculitis, sceleroderma, ankylosing spondilitis, polymyositis, and reactive arthritis and osteoarthritis were recruited from rheumatology clinics or rheumatology ward of Hafez hospital in Shiraz between Farvardin and Esfand 1392 using 15 questions focusing on the demographic characteristics of the patients, duration of disease, the types of Complementary and Alternative Medicine used, the reason of Complementary and Alternative Medicine consumption, the regulation of their visit, and the person who recommended using Complementary and Alternative Medicine.

Results: Eighty seven patients (87 %) reported using at least one form of Complementary and Alternative Medicine and 74 (85%) were female. Dietary supplements comprised the most frequent category of Complementary and Alternative Medicine among our patients (40%), followed by specific diet (36%). The most frequent reasons reported for turning to Complementary and Alternative Medicine and even discontinuing conventional medicine were inadequate response in 75 cases (63%). Patients were mostly introduced to Complementary and Alternative Medicine modalities through non expert people. The correlations between Complementary and Alternative Medicine use and demographic or clinical parameters, data were not significant. The use of Complementary and Alternative Medicine and attending regular visit did not correlate significantly. However, the p value was pretty borderline and we cannot rule out this correlation, completely.

Conclusion: It can be concluded that Complementary and Alternative Medicine use was popular in patients with inflammatory rheumatologic diseases. However, the statistical difference between Complementary and Alternative Medicine users and non Complementary and Alternative Medicine users in the aspect of demographic data such as age, sex, marital status, education, and smoking, duration of disease, and attending rheumatology center was not significant. Although the results were borderline for their regular visits and the users had more irregular visits. Nonetheless, guidelines and safety standards and more studies are necessary for these remedies in order to clarify its applications, limitations, and epidemiology.

S4-1

Intravenous Methylprednisolone pulse therapy in severe ocular involvement of Behcet's disease; a double blind control study

Mastaneh Mohammadi, Farhad Shahram, Hormoz Shams, Shirin Asar, Farimah Ashofteh, Fereydoun Davatchi

Behcet's Disease Unit, Rheumatology Research Center, Tehran University of Medical Sciences, Tehran, Iran

Aim: Behcet's disease (BD) is a chronic, autoimmune multisystemic vasculitis. The posterior segment ocular lesions are among the most dangerous involvements which can lead to blindness. It requires early and intensive treatment in order to reduce inflammation as early as possible to prevent sight-threatening complications. Systemic corticosteroids are the first line treatment for supression of inflammation. However, there are no controlled studies on the effect corticosteroid pulse therapy in these lesions. The goal of this study is to evaluate the efficacy of high dose intravenous methylprednisolone pulse therapy in BD patients with posterior segment eye lesions.

Methods: This study was a double blind randomized control clinical trial on a total of 34 BD

patients classified according to the new international criteria of BD (ICBD criteria) with posterior uveitis (PU) and/or retinal vasculitis (RV). As the initial therapy they randomly received either 1000 mg methylprednisolone as IV infusion in 20 minutes for 3 consecutive days (*Intervention* group) or placebo (*Control* group).2Both groups received the same treatment with combination of IV cyclophosphamide as 0.5 g/m body surface/month, Azathioprine 2-3 mg/kg/day and Prednisolone 0.5 mg/kg/day orally. All patients were followed every 2 months for up to 6 months with no therapeutic intervention. Visual acuity (VA) was calculated by the Snellen chart. A Disease Activity Index DAI), based on the inflammatory state of each eye (TIAI) and different sections of eye, and a Total Adjusted DAI (TADAI) for each patient was calculated. Our improvement criteria were ³ 20% changes in visual acuity or 3.5 score reduction of DAI based on Iranian Behcet's Disease Dynamic Activity Measurement (IBDDAM). The comparison of these data before and after the treatment was made in each group and between the two groups by *paired t* and *Mannwithny U test*.

Results: Seventeen patients in each group completed the 6 months treatment period. Both groups were matched for age, sex and the severity of ocular involvement. The mean VA improved from 0.5 to 0.8 ($p<0.000001$) in *Intervention* group and from 0.6 to 0.7 ($P < 0.02$) in the *Control* group. The difference was statistically significant ($P <0.01$). The mean DAI for PU improved from 2.1 to 0.5 ($P<0.0006$) in *Intervention* group versus 2.2 to 0.8 (<0.0002) in the *Control* group. The mean DAI for RV improved from 4.3 to 1.1 (<0.0004) in *Intervention* group versus 3 to 1.1 ($P<0.0005$) in *Control* group. The mean TIAI decreased from 23 to 5.7 ($P<0.0002$) in *Intervention* group versus 24.8 to 8.4 ($P<0.0003$) in *Control* group. The mean decrease in TADAI was from 24.1 to 7.3 ($P<0.0002$) in *Intervention* group and from 25.9 to 9.7 ($P<0.0004$) in *Control* group. But comparison of all these DAI improvement between the two groups showed no significant difference ($p>0.2$).

Conclusion: Adding IV methylprednisolone pulse therapy to conventional therapy for severe ocular lesions of BD showed a significant greater improvement in visual acuity. This effect was apparent from the second month and maintained at least during the first 6 months of treatment.

S4-2

Prevalence of Cognitive Disorders in Patients with Systemic Lupus Erythromatosus; a cross-sectional study in Tehran, Iran

Anousheh Haghighi

Associate Professor Of Iran University of Medical Sciences, Medicine Department

Background: Neuropsychological manifestations are present in 60% of patients with Systemic Lupus Erythematosus (SLE) among which cognitive dysfunction is the most common. Cognitive disorders are present even early in the course of SLE and in the absence of other significant neuropsychiatric manifestations. To satisfy the definition of cognitive dysfunction, at least one of eight American College of Rheumatology (ACR) cognitive disorder domains must be affected. This study aims to determine the prevalence of cognitive disorders in SLE patients, and the relationship of cognitive disorder domains with depression and anxiety.

Methods: In this cross-sectional study, 54 patients with SLE and 48 healthy subjects were included. Mini-Mental State Examination (MMSE), Clock Drawing Test (CDT) and Trail Making Test part A (TMT-A) were used to screen for cognitive impairments. All subjects were evaluated with the Beck Depression Inventory (BDI) and the Beck Anxiety Inventory (BAI) to determine depression and anxiety as probable confounding variables. Statistical tests were performed using SPSS.

Results: The mean MMSE scores in SLE and control group patients (26.12±3.58 and 28.01±1.99, respectively) were significantly different (P=0.001). The sub scores in all areas assessed with MMSE were lower in SLE patients, however, it was only significant in the areas of orientation, recall and language (P<0.05). SLE patients showed a significant lower performance in TMT compared to healthy controls (P=0.01). The CDT according to the Watson scoring system showed significant difference between both groups (P=0.03). The Sunderland scoring system also indicated lower performance in the SLE group, but the difference was not significant.

Conclusion: Our study showed that cognitive disorders are more than 3-fold in SLE patients compared to normal subjects. The most impaired domains include orientation, Memory (recall), Language, Executive function, and psychomotor speed. Anxiety and depression are mostly correlated with domains included in the MMSE test. SLE severity, calculated by SLEDAI, has significant correlation with psychomotor speed. Systematic tests that contain all domains of cognition disorders may be needed for better evaluation.

Keywords: Systemic Lupus Erythematosus, cognitive disorders

S4-3

Antibodies Against Zymogen-granule Membrane Glycoprotein2 in Behcet's Disease

Maassoumeh Akhlaghi, Bahar Sadeghi Abdollahi, Seyedeh Tahereh Faezi, Mahdi Mahmoudi, Fereydoun Davatchi

Background: The pathophysiology of BD follows the general scheme of an autoimmune disorder: recognition of an exogenous or endogenous antigen by the immune system in a special genetic background, and reacting to it in an abnormal way, leading to the lesions of the disease. Crohn's disease (CD) is one of the major clinical entities of theinflammatory bowel diseases. The pathology in CD causes inflammation of all bowel wall layers that can attack any part of the digestive tract, fromthemouthtotheanus. Autoimmunity is assumed to be a major contributor to the pathogenesis in CD. The major zymogen-granule membrane glycoprotein2 (GP2) has been recently identified as a major autoantigenic target in CD. GP2 seems to exert an immunomodulating and antimicrobial function in the intestine. However across-reactivityof pancreatic autoantibodies (PAB) between GP2 and homolog moleculescannotbeexcluded. GP2 is upregulated on activated humanT-cellsand can be influenced by TNFα inhibition. Furthermore, GP2 decreases proliferation, apoptosis, and activation of human intestinal epithelial, mucosal, andperipheralT-cell; and modulate cytokine secretion. Anti-GP2 antibodiesare found to be positive in about 30% of patients withCD. Anti-GP2IgG and IgA appear to be associated with distinct disease phenotypes. Similarities between Behcet's and Crohn's disease, includinggastrointestinal lesions, fever, anemia, oral ulcers, uveitis, arthritis, thrombophlebitis and erythema nodosum led us to investigate the serum level of anti GP2 in patients with BD.

Methods: The patients were selected from a cohort of BD and control patients referring to the BD clinic at Rheumatology Research center, TUMS. The clinical andparaclinical data were extracted from RRC BD registry. Patients were enrolled in a case-control study. Cases were BD patiets diagnosed based on the International Criteria for BehcetDisease (ICBD). Controls were people who were not diagnosed with BD. Blood sampleswere collected after informed consent was obtained fromthe patients. Lipaemic, hemolytic and contaminated samples were not used. ELISA methodwas performedfor the determination of IgG and IgA autoantibodies against glycoprotein 2 in human serum. The results of ESR test and HLA typing were also used. Mann-Whitney U test was used for the comparison.

Results: 88BD patients and 92 controls were enrolled. The serum levels of Anti GP2 IgG were significantly higher in BD patients compared to controls by Mann-Whitney test (mean rank 101.13 versus 80.33, P value: 0.007). The serum levels of Anti GP2 IgA werehigher in BD patients however the difference was not statistically significant (mean rank 90.58 versus 90.41, P value: 0.983). For BD patients Anti GP2 IgG levels weresignificantly higher in patients with positive pathergy results. Anti GP2 IgG was also associated with HLA B5 and HLA B27. There was no association between Anti GP2 IgG and sex, mucocutaneous, skin and joint manifestations, ocular lesions, phlebitis and large vessels involvement in BD patients. There was not significant association between Anti GP2 and gastrointestinal involvement in BD, however, the finding might be irrelevant according to the small number of patients with GI involvement (2 patients).

Conclusion: We found significant difference in serum levels of Anti GP2 IgG in BD patients and controls. The results of this study didn't support the association between Anti-GP2and a distinct BD phenotype. Further studies need to be performed to investigate this opinion.

Keywords: Behcet's Disease, aniti gp 2 anti body, Autoimmunity, Crohn's disease

S4-4

Department Of Rheumatology, Aja university of medical sciences Antimalarial Ophthalmopathy in Iranian known cases of Lupus Erythematosus and Rheumatoid Arthritis. Are these complications reversible?

Mohsen soroosh, Mahdi Dadpour, Soosan Soroosh

[1] Department Of Rheumatology, Aja university of medical sciences, Tehran, Iran

Introduction: Ocular side effects are the most hazardous effects of Antimalarials and including keratopathy, ciliary body involvement, lens opacities and retinopathy. We know that some of ophthalmologic complications of antimalarials are long life but how long and do they permanent?

Methods: In a previous retrospective study medical records of 598 patients with RA, SLE or MCTD taking antimalarial medications were evaluated. The patients had undergone routine ophthalmological assessment. In case of ocular involvement, second ophthalmic examination was conducted by another expert ophthalmologist to ensure the routine ocular assessment. Ocular examination included corrected visual acuity for distant and near vision, assessment with a red Amsler grid, slit lamp examination and funduscopy. In this new study after finding of confirmed patients with ocular problems we will recheck these patients. We are calling up the patients with ocular complications that their last examination was at least 12 month ago. We will refer patients to ophthalmologist for exam the patients again to see the existence of previous complications.

Results: 598 patients were included in our previous study; 124 patients (20.7%) were male and 474 patients (79.3%) were female. 515 patients (86.1%) were free of ophthalmic abnormality while in 83 patients (13.9%) ocular complications were detected in routine ophthalmic examination. These 83 patients went under second ophthalmological assessment by expert ophthalmologist which led to 49 patients' ocular toxicity being ruled out and confirming 34 cases (5.7%) of ocular toxicity. In continuation of the study we followed the patients for their complications. From 34 patients with confirmed complications we could follow 11 of them for a repeat control of ophthalmic examination (available cases). Base on control exam by an ophthalmologist 6 of them had normal exam and for 5 number of them there was a permanent complication.

Conclusion: Base on this study we hope the most complications of antimalarial agents on the eyes be reversible during the time and we can use this drugs in their indications with more safety.

S4-5

Determination of Killer Cell Immunoglobulin-Like Receptors (KIR) and Their HLA-Ligands Genes Variation in Iranian Patients with Systemic Sclerosis

Mahdi Mahmoudi[1], Soheila Sobhani[1], Faranak Fallahian[2], Shima Ghoroghi[1], Ahmad Reza Jamshidi[1], Shiva Poursani[1], Masoumeh Dolati[2], Zahra Hosseinpour[1], Farhad Gharibdoost[1]

[1] Rheumatology Research Center, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran
[2] Cellular and Molecular Research Center, Qom University of Medical Sciences, Qom, Iran

Introduction: systemic sclerosis is a complex disease characterized by skin fibrosis and dysfunction of internal organs; also abnormal levels of auto-antibodies are seen in the blood of SSC patients. Genetic and environmental stimuli are two main factors which have role in the pathogenesis of autoimmune disorders. The aim of this study was to provide information on the possible relation between KIR and HLA genes with SSC disease in Iranian population.

Methods: A total of 279 SSC patients (who were chosen according to ACR criteria) and 451 healthy controls were enrolled in this case-control study in order to determine the presence or absence of 19 KIR genes and 6 specific HLA class I ligands. DNA was analyzed by Polymerase Chain Reaction with specific sequence primers method (PCR-SSP).

Results: We observed that SSC cases positive for KIR-2DP1 showed risk association. Among 8 KIR-full genotypes which were discovered, 6 genotypes showed a considerable protective role against SSC and none of them increased the risk of SSC disease. Only one HLA haplotype was the significant risk estimator between 13 discovered HLA haplotypes. The gene-gene interactions were also analyzed and significant confounding effects were seen between involved genes in these the two combinations: "KIR3DL1; *HLA-BW4-Thr80"* and "*KIR3DL1 -HLA-BW4A1"*.

Conclusions: Our results suggest a pivotal relation between KIR genes and their HLA ligands with incidence rate of SSC in our Iranian population and supports previous studies which showed a strong association between single activating or inhibitory KIR genes and genotypes with the risk of SSC.

Keywords: Systemic Sclerosis, KIR, KIR HLA Ligand, NK Cell

S4-6

Survivin is over-expressed in skin fibroblasts of systemic sclerosis patients

Mohammad Bagher Mahmoudi[2], Ehsan Farashahi[2], Farhad Gharibdoost[1], Ahmad Reza Jamshidi[1], Mohammad Hasan Shaeikhha[2], Saeideh Jafarinejad F[1], Mahdi Mahmoudi[1]

[1] Rheumatology Research Center, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran
[2] Genetic Department, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

Background: Systemic sclerosis is a multistage autoimmune disorder characterized by three morphological hallmarks in early skin lesions: structural and functional vascular and microvascular abnormalities, perivascular and tissue infiltration of mononuclear inflammatory cells, and increased collagenous and noncollagenous extracellular matrix molecules. Systemic sclerosis patients skin fibroblasts show anti-apoptotic activity, which enhances the fibrosis stage of the disease. We investigated the most important members of IAP family's mRNA expression level. Members of this family are the most important inhibitors of apoptosis.

Material and methods: Skin biopsy samples were obtained from 21 patients with diffuse SSc diagnosed according to the American College of Rheumatology criteria for SSC. Skin biopsy samples were also obtained from 16 healthy controls. Fibroblasts of skin were cultured and Total RNA was isolated from cell populations followed by cDNA synthesis. Real-time PCR was performed for determination of *cIAP1, cIAP2, xIAP* and *survivin* gene expression.

Results: Real time data analysis showed significantly higher expression level for *survivin* in patients compared to control group with a ratio of 1.8. No significant difference in *cIAP1* and *cIAP2* and *xIAP* mRNA expression levels were observed between case and control groups.

Discussion: *survivin* as a member of Inhibitor of Apoptosis family, interact with cdk4, which supports the procaspase 3 and p21 complex, thus resulting in suppression of cell death. It also can inhibit caspase 3 and 7 directly. *In vitro* experiments show that *survivin* can inhibit caspase activity, fas, and bax mediated apoptosis. *Survivin* also has pivotal roles in cell growth. As far as we know this is the first time that over-expression of *survivin* is being reported, which can open a new path to discovery of the pathogenesis of Systemic Sclerosis. *Survivin* can also be a new potential therapeutic target, as it is in cancer.

Keywords: Systemic Sclerosis, *survivin*, apoptosis, fibroblast, expression

POSTER PRESENTATIONS

P1-1

Toll-like receptor 2 gene polymorphisms in Azari patients with Behcet's Disease

Alireza Khabbazi[1], Leila Emrahi[1]

[1] Connective Tissue diseases Research Center, Tabriz University of Medical Sciences, Tabriz, Iran

Objective: The aim of our study was the investigating the association of Toll-like receptor 2 (TLR2) gene polymorphisms with susceptibility to Behcet's Disease (BD) in Azari population of Iran.

Methods and materials: In this cross sectional study we considered the single-nucleotide polymorphisms rs31 and rs99 of TLR2 in 50 Iranian Azary patients with BD and 50 healthy controls by polymerase chain reaction-restriction fragment length polymorphism.

Results: No significant difference was found for the rs31 and rs99 polymorphisms between the BD and control groups.

Conclusions: Our data suggest that the TLR2 gene rs31 and rs99 polymorphisms are not associated with susceptibility to BD in Iranian Azari population.

P1-2

TNF-α alpha-induced protein 3 gene polymorphisms in Azari patients with Behcet's Disease

Alireza Khabbazi

Connective tissue disease center, Tabriz university of medical science, Tabriz, Iran TNF-α alpha-induced protein 3 gene polymorphisms in Azari patients with Behcet's Disease

Objective: The aim of our study was the investigating the association of polymorphisms of TNF-α alpha-induced protein 3 (TNFAIP3) gene with susceptibility to Behcet's Disease (BD) in Azari population of Iran.

Methods and materials: In this cross sectional study we considered the rs9494885 and rs7753873 polymorphisms in 50 Iranian Azary patients with BD and 50 healthy controls by polymerase chain reaction-restriction fragment length polymorphism.

Results: A significant difference was found for the rs7753873 polymorphism between the BD and control groups. The frequency 6.6% was present in BD patients compared to 20% of controls (p=0.04). We found no significant differences between the BD and control groups regarding the distribution of the polymorphism frequencies.

Conclusions: The rs7753873 polymorphism of TNFAIP3 has negative association with BD in Iranian Azari population.

P1-3

Clinical Manifestations Of Systemic Lupus Erythematosus In Children

Sousan Kolahi[1], Farid Karkon Shayan[1], Alireza Khabbazi[1], Hadise Kavandi[1]

[1] Connective Tissue Diseases Research Center, Tabriz University of Medical Sciences

Aims: Systemic lupus erythematosus (SLE) is a chronic autoimmune disease. Childhood SLE is known to have a worse prognosis than adult. Clinical manifestations in SLE patients are extremely variable and its course is unpredictable that can involve any organ system, and may lead to significant morbidity and even mortality. The purpose of this study was to evaluate the clinical manifestations of lupus in children in rheumatology clinic of Tabriz University of Medical Sciences.

Methods: In a cross-sectional study, all children with SLE who visited in the connective tissue diseases research center in Tabriz University of Medical Sciences during 2012 and 2013 were included. Children ages were 2 years to <18 years with a diagnosis of SLE (defined as ≥3 claims with an International Classification of Diseases, Ninth Revision [ICD-9] code of 710.0 for SLE, each >30 days apart). 20 children with a diagnosis of SLE included the study to evaluate clinical manifestation of SLE in children.

Result: Mean age of patient was 11.65. Male to female ratio was 1: 4. The most common clinical feature of patient was arthritis (45%). Other most frequent clinical manifestations were hemolytic anemia (40%), leukopenia (35%), thrombocytopenia (30%), fever (25%), nephritis (20%), malar rash (10%), discoid rash (10%), hematological disorder (10%), photosensitivity (5%) and oral ulcer (5%). The prevalence of laboratory abnormalities at presentation of SLE were antinuclear antibodies (85%), Erythrocyte Sedimentation rate (60%), C-Reactive Protein (60%), anti-strptolysin O (55%), rheumatoid factor (40%), anti-double-stranded DNA (20%) and anti-cardiolipin antibodies (5%). There were some differences between the frequencies of clinical presentations in this study compare to other study.

Conclusion: Presenting manifestations of SLE in children are diverse. Musculoskeletal involvement, hematological involvement, cutaneous rash and nephritis are the most common clinical Manifestation of SLE in children. Detailed histories, thorough review of systems and complete physical examination with the help of laboratory, make the correct and early diagnosis of SLE in children

P1-4

Depression In patients With Rheumatoid Arthritis: Covariates and Determinants

Nahid Kianmehr[1], Farshad Naserifar[2], Mahgol Farjadnia[3], Mani Mofidi[4], Anousheh Haghighi[5]

[1,4] Associate Professor Of Iran University of Medical Sciences, Medicine Department
[2] Internist
[3] General Practitioner
[4] Associate Professor Of Iran University of Medical Sciences, Emergency Department

Background and Objectives: Rheumatoid arthritis (RA) is a chronic rheumatologic disease, affecting different aspects of patients' lives. Although several studies have reported a higher rate of depression among patients with RA, there is still controversy over the underlying risk factors and probable covariates of depression in these individuals. The present study thus investigated the relationship between disease activity, serum levels of vitamin D, and depression in patients with RA.

Methods: Patients with confirmed RA based on the American College of Rheumatology guidelines entered the study. Disease activity was measured using the Disease Activity Score (DAS). The Hospital Anxiety and Depression Scale (HAD) was also administered to determine the subjects' level of depression. The Health Assessment Questionnaire (HAQ) was applied for evaluating the subjective disability of the patients in their daily activities. Serum levels of vitamin D, C-reactive protein (CRP), and erythrocyte sedimentation rate (ESR) were also measured.

Results: 62 patients were enrolled in the study. Based on the HADS scores, 30 patients (35%) were not depressed. However, depression was present and possibly present in 12 (19.4%) and 15 (24.2%) cases, respectively. According to the DAS, inflammation level was high in 12 patients (12.9%), moderate in 24 patients (38.7%), and low in 30 patients (48.4%). The DAS was inversely associated with vitamin D3 levels ($P < 0.001$). There were also significant relations between the DAS and scores on both the HAQ and HADS ($P = 0.001$ and 0.009, respectively). Moreover, higher levels of vitamin D3 were related with lower scores on the HAQ ($P = 0.018$).

Conclusion: In the current study, higher scores on the HADS were directly associated with disease activity and lower levels of vitamin D. Nevertheless, no significant relations could be established between the HADS scores and patients' sociodemographic characteristics. Finally, lower levels of vitamin D were found in patients with higher disease activity based on the DAS.

Keywords: Rheumatoid arthritis; depression; disease activity score; vitamin D level

P1-5

Plasmapheresis in Recently Diagnosed Systemic Sclerosis, a Successful Experience

Mowlia, H Soleymani, A Dehghan

Professor Of Medicine, Shahid Sadoughi University Of Medical Sciences, Yazd, Iran, Corresponding
Assistant Professor, Shahid Sadoughi University Of Medical Sciences, Yazd, Iran
Assistant Professor, Shahid Sadoughi University Of Medical Sciences, Yazd, Iran

Aim: Systemic sclerosis (SSc) is an autoimmune systemic disease of unknown etiology. Present treatment modalities have limited impact on clinical/ laboratory outcomes.

Method: For the first time in our center, we used plasmapheresis in a rather young woman with recent onset but progressive SSc. She is a 39-year-old woman with a recent history of skin stiffness, Raynaud's phenomenon, nail fold capillary changes and newly diagnosis of SSc presented to us due to worsening her clinical symptoms even after initiation of routine remedies such as low dose oral prednisolone, Ca-channel blockers, azathioprine and pentoxyfylline. After getting written consent, interdisciplinary discussion and agreement (with Professor Oliver Distler, Switzerland) we started a series of Plasmapheresis (PP) with FFP replacement for her.

Results: Dramatic clinical response was observed in respect to Raynaud's phenomenon, skin stiffness, tendon rub after three sessions of PP. Her modified Rodnan skin score (MRSS) dropped from 36 (before commencement of therapy) to 28 in day 4 and 18 in day 20 after 15 sessions of PP.

Conclusion: PP could significantly modify the course of SSc as observed in our case study. Elimination of culprit immune mediators/ cytokines/ autoantibodies could be the possible mechanism of action of PP.

P1-6

Update on the Pathogenesis of Rheumatoid arthritis: Gene analysis

Ramezan Ali Ataee[1] ,Gholam Hossein Alishiri[2] ,and Mohammad Hossein Ataee[3]

[1] Department of Medical Microbiology, Faculty of Medicine, Baqiyatallah University of Medical Sciences, Tehran, Iran.
[2] Department of Rheumatology, Faculty of Medicine, Baqiyatallah University of Medical Sciences, Tehran, Iran.
[3] Applied Microbial Research Center, Baqiyatallah University of Medical Sciences, Tehran, Iran.

Aim: Superantigens as biomarkers have been considered as pathogenesis of rheumatoid arthritis. The aim of this investigation was to analysis bioinformatically the interaction of the most common superantigens with a subclass MHC class II gene.

Methods: In this study, the related sequence SEQ NM_002118.4 and SEQ NM_006120.3 of Homo sapiens major histocompatibility complex and ent A gene and ent B gene with gene Bank EF520720.1 and AY852244.1 were subjected to analysis. Multiple sequence alignments were performed using ClustalW software of European Bioinformatics Institute website to find a common fragment in all the sequences. Antigenic sequences within the genes were selected. The finding data was descriptively analyzed.

Results: The results of this assay revealed that the matched portion of the encoded site (rich XXX) by these superantigen genes were the similar and may be useful as vaccine candidates against inflammatory trigger superantigens.

Conclusion: However, there were no exact definite etiology for RA and different agent as causative are mentioned. The results of this study showed the similarity of the action site. This finding may be highly suited to study, design, and evaluate vaccine strategies RA disease.

Keywords: Rheumatoid arthritis, superantigens gene, MHC Class gene. Bioinformatics analysis

P1-7

Unusual overlap diseases / A case series

Roshanak Hasheminasab Zavareh, Ali Javadzadeh, Nahid Kianmehr

[1] assistant professor-general internal medicine, iran university
[2] assistant professor- rheumatology department, iran university
[3] associated professor- rheumatology department, iran university

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 Erythrmatousus (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 HLAB27and bilateral sacroiliiatis A 34 year old women with a symmetrical polyarthritis, sausage right 2.nd 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-PR3antibody, and positive anti cadiolipin antibodies.

Conclusion: sacroiliitis, and granolomatosis polyangitis –although rare- can present in patients with active SLE

Keywords: Overlap, SLE, sacroiliitis, granolomatosis polyangitis

P1-8

Detection of Epstein-Barr nuclear antigen 1 (EBNA1) in synovial fluid of Rheumatoid arthritis patients

Mahabadi M[1], Faghihloo E[2], Alishiri G H[3], Ramezan Ali Ataee[1]*

[1] Department of Medical Microbiology, Microbial Research Center, Baqiyatallah University Of Medical
[2] Department of Virology, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran.
[3] Department of Rheumatology, Baqiyatallah University of Medical Sciences, Tehran, IR Iran

Aim: Rheumatoid arthritis (RA) is one of the most common autoimmune diseases with a 0.5-1% worldwide prevalence. Its causes are unknown. Both genetic and environmental factors are supposed to contribute to RA susceptibility. Among environmental factors, numerous infectious agents have been suspected: Epstein–Barr virus is the most interesting and infects about 98% of the world's population. Epstein-Barr nuclear antigen 1 (EBNA1) was the first Epstein-Barr virus (EBV) protein detected and is the most widely studied. EBNA1 is expressed in both latent and lytic modes of EBV infection. The importance of EBNA1 in EBV latency is reflected in the fact that EBNA1 is the only viral protein expressed in all forms of latency in proliferating cells and in all EBV-associated tumors. The aim of this study was to detect of EBV EBNA1 in RA patient's synovial fluid.

Methods: Fifty Synovial fluids samples were obtained from patients with RA. Using a standard of EBV genome and EBNA-1-specific primers the method of PCR was set up. Then all Synovial fluids samples were subjected to DNA extraction and PCR amplification separately.

Results: The demographic and laboratory characteristic assay revealed that the mean age of patients was 49 Years. 60% males and 40% were females respectively. In addition in all cases the mean RF level of patient was under the normal level. The results of this study showed that the PCR could detect EBV DNA in > 60% of cases.

Conclusion: EBV was frequently detected in the Synovial fluid of RA patients. The EBV is a strong candidate that may act at several levels of the pathophysiology of RA. These findings suggest that EBV may play a role in the pathogenesis of RA. The probability relationship between disease and EBV need to further study. However, this finding cans assistance diagnosis and treatment methods of RA disease.

Keywords: Rheumatoid arthritis, EBV, EBNA-1.

P1-9

Analysis of the gene expression of Sulf1 and sulf2 in fibroblasts of the skin biopsy of patients with systemic sclerosis

Mohammad Bagher Mahmoudi[1], Mahdi Mahmoudi[2], Ehsan Farashahi[1], Ahmad Reza Jamshidi[2], Mohammad Hasan Sheikhha[1], Elham Karimizadeh[2], Farhad Gharibdoost[2]

[1] Genetic Department, Shahid Sadoughi University of Medical Sciences, Yazd, Iran
[2] Rheumatology Research Center, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran

Background: Systemic sclerosis is an autoimmune or connective tissue disease. It is characterized by thickening of the skin caused by accumulation of collagen, and by injuries to the smallest arteries. It has been identified that *SULF1* can interfere in signaling of many heparan binding growth factors and morphogens. Heparan sulfate (HS) proteoglycans are glycoproteins which regulate many signaling pathways. HS is added to proteins during Golgi modifications. Sulfatase 1 is a catalytic enzyme which removes sulfate groups from HS of proteoglycans. The angiogenesis-related studied molecules which can be regulated by heparan sulfate including *VEGF*, *FGF*, *Wnt*, *BMP*, *HGF*, *HB-EGF* and *SHH*. Most of these molecules play important roles in Systemic sclerosis pathogenesis.

Material and methods: Skin biopsy samples were obtained from 21 patients with diffuse SSc diagnosed according to the American College of Rheumatology criteria for SSC. Skin biopsy samples were also obtained from 16 healthy controls. Fibroblasts of skin were cultured and Total RNA was isolated from cell populations followed by cDNA synthesis. Real-time PCR was performed using SYBR Green PCR master mix and specific primers for *Sulf1* and *Sulf2*.

Results: Real time data analysis using ΔΔct method showed no significant difference in *Sulf1* and *Sulf2* mRNA expression between case and control groups.

Conclusion: despite all theoretical mechanistic relevance of *Sulf1*, and *sulf2* with scleroderma, we observed no change in both gene's expression. However this finding does not prove the irrelevance of *SULF1* and *SULF2* with scleroderma, it only denies expression change in these two genes and functional relativity of them remains to be studied.

Keywords: Systemic sclerosis, Heparan sulfate, SULF1, SULF2, expression

P1-10

Expression of IL-4 and TGF-β in Iranian patients with Ankylosing spondylitis and their relation with disease activity

Farin Vaez[2], Ali Farazmand[2], Ahmad Reza Jamshidi[1], Mahsa Mohammad Amoli[3], Zaynab Tabrizi[4], Mahsa Asadbek[2], Mahdi Mahmoudi[1*]

[1] Rheumatology Research Center, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran
[2] Department of cell and molecular biology, University of Tehran, Tehran, Iran
[3] Endocrinology and Metabolism Research Center, Tehran University of Medical Sciences, Tehran, Iran
[4] Immunology Department, Shahid Sadoughi University of Medical Sciences (International Campus), Yazd, Iran

Inrtoducton: Ankylosing spondylitis (AS) is the prototype of spondyloarthropathies which is a progressive autoimmune disease that affects the sacroiliac joints and axial skeleton. Considering the role of inflammation in this disease, the study examined the gene expression of anti-inflammatory cytokines IL-4 and TGF-β and also their relationship with disease activity parameters.

Methods: For this purpose a group of 48 patients with ankylosing spondylitis fulfilling the New York Modified Criteria and 47 healthy control subjects were enrolled in the study. After RNA extraction and cDNA synthesise, expression of target genes was measured using Syber Green Real-Time PCR technique.

Results: The results showed a significant increase in the level of TGF-β expression in patients, but there was no correlation with disease activity parameters.

Conclusion: Due to the important role of TGF-β in inflammation, these results indicate that immune system efforts to reduce the pathogenesis of AS.

Keywords: Ankylosing spondylitis, IL- 4, TGF-β

P1-11

Expression of proinflammatory cytokines IL-17, IL-1β, TNF-α, IFN-γ in Iranian patients with Ankylosing spondylitis and their correlation with disease activity

Mahsa Asadbek[2], Ali Farazmand[2], Ahmad Reza Jamshidi[1], Mahsa Mohammad Amoli[3], Zaynab Tabrizi[4], Farin Vaez[2], Mahdi Mahmoudi[1*]

[1] Rheumatology Research Center, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran
[2] Department of cell and molecular biology, University of Tehran, Tehran, Iran
[3] Endocrinology and Metabolism Research Center, Tehran University of Medical Sciences, Tehran, Iran
[4] Immunology Department, Shahid Sadoughi University of Medical Sciences (International Campus), Yazd, Iran

Introduction: Ankylosing spondylitis (AS) is a chronic autoimmune disease with unknown etiology affecting the sacroiliac joints and axial skeleton. HLAB27 is a common genetic factor associated with AS. Cytokines are soluble proteins coordinating the interaction between cells of the immune system. In this study the expression of proinflammatory cytokines IL-17, TNF-α, IFN-γ and IL-1β in Iranian patients with AS and also their correlation with disease activity was assessed.

Methods: A group of 48 Iranian patients with ankylosing spondylitis and 47 healthy control subjects were recruited in the study. The gene expression of proinflammatory cytokines IL-17, TNF-α, IFN-γ and IL-1β was evaluated using SYBR Green Real-Time PCR technique.

Results: The expression of IL-1β and TNF-α, were significantly higher in patients with AS than healthy controls and the gene expression of IFN-γ and IL-17 did not show any differences. We found no correlation between disease activity parameters and levels of IL-17, TNF-α, IFN-γ and IL-1β.

Conclusion: Considering the important role of IL-1β and TNF-α in advancing the process of inflammation, we suggest that IL-1β and TNF-α may have a role in the pathogenesis of AS.

Keywords: Ankylosing Spondylitis, Pro-inflammatory Cytokines, Gene Expression

P1-12

Prevalence of blood groups among patients with systemic lupus erythmatous and rheumatoid arthritis.

Amir Nik[1], Maryam Sahebari[1], Zahra Rezaieyazdi[1]

[1] Rheumatic Diseases Research Center, School of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran.

Aim: Systemic lupus erythmatous is a chronic autoimmune disease with different presentations which can affect multiple organs. Rheumatoid arthritis is another immune-mediated condition which involves synovial joints and extra-articular organs too. In the plasma there are antibodies against blood group antigens and Rh antigens which may influence autoimmune disease progression. In this study we compared the percentage of blood groups in SLE and RA and compare them with the general population.

Method: We collected the data from 330 SLE and 540 RA patients. Collected data included patient's age, sex, duration of the disease, involvement of major organs, related laboratory findings (RF, AntiCCP in RA, ANA profile, Antiphospholipid antibodies, Coombs test, complement, AntiDNA in Lupus) and their ABO blood group and Rh blood group. The portion of the normal population of Mashhad was obtained from 117026 normal blood donors. The findings were analyzed with SPSS software.

Results: 91.4% of lupus patients were female. The mean age was 32 ± 11 years. Rh positive patients were 91.8%. The prevalence of ABO blood groups were as below: A (29.7%), B (23.8%), AB (7.6%) and O (39%). 85.8% of RA patients were female. The mean age was 48.7 ± 13.2 years. Rh positive patients were 93.8%. the prevalence of ABO blood groups were as below: A (30.5%), B (30.1%), AB (9%), and O (30%). The percentage of blood group in the normal population for ABO blood groups were A (29.8%), B (27.4%), AB (8.9%) and O (33.9%). Rh positive patients were 88.3%. Our analysis suggested that there was no significant difference between the ABO blood group of patients with SLE and RA in comparison with the normal population. However; there was a significant difference between the Rh blood group in RA patients comparing with the normal population ($p<0.001$). The comparing of Rh blood group between SLE patients with the normal population was also suggestive of a difference ($p=0.079$). There was a near significant difference between the ABO blood group between SLE and RA patients ($p=0.071$) but there was no difference in the Rh blood group between these patients ($p=0.104$).

Conclusion: Our findings suggested that the Rh blood group may associate with the prevalence of RA and it may be due to the presence of antibodies against this antigen. Further studies with bigger population sampling and laboratory investigation are needed for definitive results.

P1-13

Evaluating the Prevalence and Type of Pulmonary Involvement in Ankylosing Spondylitis

Simin Almasi[1], Nader Rezaei[2], Kazem Zamani[3], Ali Khalooei[4]

[1] Assistant Professor of Rheumatology, Department of Rheumatology, Firoozgar hospital, Iran University of Medical Sciences, Tehran, Iran.

[2] Assistant Professor of Pulmonary Medicine, Department of Pulmonary Medicine, Firoozgar Hospital, Iran University of Medical Science, Tehran, Iran.

[3] Resident of Internal Medicine, Department of Rheumatology, Firoozgar Hospital, Iran University of Medical Science, Iran, Tehran.

[4] Assistant professor of Community Medicine, Department of Community Medicine, School of Medicine, Kerman University of Medical Sciences, Kerman, Iran.

Background: Ankylosing spondylitis (AS) is a chronic and inflammatory condition that affecting the spine and peripheral joints. The hallmark of AS is inflammatory back pain associated with radiographic sacroiliitis and often spondylitis and can also be associated with extra-articular manifestations, especially uveitis, and, less commonly, cardiac and pulmonary disease. Pulmonary manifestation in AS is rare and asymptomatic which includes restrictions fibrobollous apical, chest wall disease, spontaneous pneumothorax, and obstructive sleep apnea.

Method: This is a cross-sectional study. It was performed on 60 patients with AS. All patients had modified New York Criteria 1984. Bath Anlylosing spondylitis Disease Activity Index (BASDAI) and Bath Anlylosing spondylitis Functional Index (BASFI), Ankylosing Spondylitis Disease Activity Score (ASDAS) and C reactive protein (CRP), ESR were measured for all patients. All patients were visited by pulmonologist and chest x-ray (CXR), pulmonary function test (PFT) and high-resolution computed tomography (HRCT) was performthe number of patients.

Result: The results show that of the 60 patients, 50 patients had normal CXR (83.3%) and 10 patients (16.7%) abnormal CXR included reticulonodular (3.3%) atelectasis (3.3%), lucency (3.3%) and association between abnormal CXR and smoking significant (p-value=0.05). Also, 12 of which were requested HRCT, 4 (6.7%) normal, 1 (1.7%) multiple nodules, atelectasis (1.7%), mosaic pattern (1.7%), pleural thickening (3.4%) and ground glass (3.4%). Pulmonary Function Test (PFT) was taken from all patients and 15 (25%) patients had abnormal PFT, 11 (18.3%) patients had restrictive pattern and 4 (6.7%) patients had obstructive pattern.

Conclusion: This study showed that the incidence of lung involvement in our patients with AS is similar to other studies (16%) and in most cases, the involvement of lung is restrictive pattern. Lung involvement in these patients may be asymptomatic.

Keyword: Ankylosing spondylitis, pulmonary manifestation, restrictive pattern.

P1-14

Acetyltransferase gene Expression in Peripheral Blood Mononuclear Cells (PBMCs) in Patients with Rheumatoid Arthritis

Alaleh Ghasemi[1], Vahideh Hassanzadeh[1], Ali Farazmand[1], Farhad Shahram[2], Nahid Aryaeian[3], Mahdi Mahmoudi[2]

[1] Department of cell and molecular biology, University of Tehran, Tehran, Iran
[2] Rheumatology Research Center, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran
[3] Department of Nutrition, School of Public Health, Iran University of Medical Sciences, Tehran, Iran

Introduction and Objective: Rheumatoid Arthritis (RA) is a chronic and multifactorial inflammatory disorder that primarily affects the joints and eventually leads to disability. Aberrant activation of the immune system in the context of synovial fibroblasts is the main feature of the disease. Identical twins studies indicate a concordance rate of 12-15% suggesting the role of non-genetic factors in the disease. Chromatin modification such as acetylation and deacetylation of histones play an important role in the pathogenesis of the disease. For this purpose, the expression of histone acetyletransferase KAT2B in Iranian patients with RA was assessed.

Material and Method: The Study included 50 rheumatoid arthritis patients were recruited from Rheumatology Research Center according to ACR criteria and 50 age and sex matched healthy controls selected for this study. The expression of target gene was analyzed by the use of Real-Time PCR with relative quantification methods. Mann-Whitney U test was used to evaluate difference between the groups.

Result: Our result indicated a significant increase in the mRNA levels of *KAT2B* gene in RA patients compared to healthy controls. (*KAT2B* (fold change expression= 2.31; $p< 0.0001$)). The results were analyzed separately for women and Significant expression was observed in patients compared to controls ($p< 0.0001$; Fold Expression Change= 2.35).

Conclusion: In conclusion, regarding the role of HATs targets genes in exacerbate of RA, the increased expression of the *KAT2B* can be justified through acetylate and activate the *interferon regulatory factor 1* (*IRF1*) transcription factor. Transfection of *KAT2B* strongly enhanced IRF-1 dependent induced genes promoter activities. Thus it may play a role in the pathogenesis of RA.

P2-1

The Year in Osteoporosis and Bone Metabolism

Sohrab Fallahi, M.D., F.A.C.P., F.A.C.R.

Clinical Assistant Professor of Medicine Uni. Of Alabama at Birmingham, Montgomery program Montgomery labama U.S.A.

Osteoporosis (OP) is defined as a skeletal disorder characterized by compromised bone strength predisposing a person to an increased risk of fracture. It is estimated that annual incidence of OP related fractures in women is higher than other epidemic diseases (heart attack, breast cancer and stroke combined). In males incidence of OP related fractures is the same as heart attack and more than stroke and prostate cancer combined. It is estimated that in 2005 there was 300000 hip fracture related to OP. In women and men OP hip fracture carries a mortality risk of 24% and 37% respectively within one year. After a hip fracture 50% of patients never fully recover. In 1995 OP related hip fracture coast was approximately $9 billion. In 2025, total estimated cost for OP related fracture in US will be $ 25 billion.

The diagnosis of OP is made when: 1- The T-Score is ≤ - 2.5 on the Bone Mineral Density (BMD) measured by a DEXA machine, or, 2- when the T-Score shows Osteopenia (T-Score -1 to -2.5), but FRAX calculation indicates the 10 years probability risk of major osteoporotic fracture is more than 20 and / or for hip more than 3.

FRAX 1™ which was introduced by WHO in 2009, was not perfect since it did not consider lumbar spine BMD, glucocorticoid (GC) dose, trabecular bone score (TBS), rate of bone loss, long term risk of fracture beyond 10 years and risk of fall. FRAX II would consider lumbar spine BMD, TBS as a new fracture index (a soft wear could be installed in the BMD machine), and dose of GC. Failure to diagnose and treat OP after a wrist fracture has led to the adaptation of Fracture Liaison Service (FLS), by International OP Foundation, National Bone Alliance and American Orthopedic Association.

Several independent studies have shown that although based upon T-score, the risk of fracture should be lower in patients with type II diabetes (T2D), but in reality, fracture risk in that population is higher. One of the factors that account for increased fracture risk in the T2D population is shown to be increased in cortical bone porosity (CBP). Sclerostin, a product of osteocyte, inhibits bone formation by blocking the WNT signaling pathway. Sclerostin is increased in T2D. In T2D increased serum or urinary Advanced Glycation end – products (AGEs) have been associated with increased risk of vertebral fracture independent of BMD. CBP as determined by HRpQCT is worse in T2D independent of obesity.

P2-2

A New Future of Psoriatic Arthritis (PA)

Sohrab Fallahi, M.D., F.A.C.P., F.A.C.R.

Clinical Assistant Professor of Medicine University of Alabama at Birmingham, Montgomery Program, U.S.A.

Psoriasis occurs in 2-3% of the U.S. population. Psoriatic Arthritis (PA) occurs in 7-42% of patients affected with psoriasis and affects males and females equally. Psoriasis precedes PA in 70%, coincides in 15%, and follows the onset of PA in 15% of cases. There is not a consistent correlation between severity of psoriasis and PA. Musculoskeletal characteristics of PA include asymmetrical arthritis, dactylitis (sausage digit), tenosynovitis, enthesitis, heel pain, sacroilitis, and spondylitis. Extra-articular manifestations of PA include psoriasis, nail changes, uveitis/conjuntivitis, bowel inflammation, obesity, insulin resistance, hypertension, hyperlipidemia, type 2 diabetes, metabolic syndrome, and cardiovascular disease. Structural joint damage may occur before the appearance of clinical symptoms. Radiographic joint damage occurs in up to 47% of patients with PA at a median interval of 2 years despite clinical improvement with conventional disease-modifying anti-rheumatic drugs (DMARDs) such as Methotrexate and Leuflunamide.

Tumor necrosis factor (TNF) blockers such as Etanercept, Adalimumab, Infliximab, Golimumab, and Certolizumab pegol have significantly improved the outcome of treatment of PA and psoriasis in the past 15 years.

More recently, approval of Ustekinumab (IL-12 and IL-23 blockers) and Apremilast (orally administered small-molecule inhibiting Phosphodiesterase E4, PDE4) have provided more armamentarium for the treatment of PA and plaque Psoriasis.

In this session, I will briefly review the clinical presentation of PA, plaque psoriasis, and then discuss the treatment with DMARDs, with major focus on the efficacy of anti-TNFs, Ustekinuman (Sterala®) and Apremilast (Otezla®).

In addition, the potential novel management approach of PA and plaque psoriasis with anti-IL-17A (secukinumab, Ixekizumab) and anti-IL-17-R (Brodalumab) will be discussed. Secukinumab (Cosentyx) was approved by the FDA in January 2015 for the treatment of adults with moderate to severe plaque psoriasis after being studied in 4500 patients. It is a fully human monoclonal antibody to L-17A and used subcutaneously every 4 weeks and has achieved PASI-90 in 59% of patients in one study and PASI-100 in 28% in another. Brodalumab achieved PASI-100 in 44% of patients with moderate to severe plaque psoriasis. The use of these agents for the treatment of PA is still in the advanced stages of RCT.

P2-3

New and Emerging Concepts in Therapeutic Approaches to Osteoporosis

Sohrab Fallahi, M.D., F.A.C.P., F.A.C.R.

Clinical Assistant Professor of Medicine University of Alabama at Birmingham, Montgomery Program Montgomery Alabama, U.S.A.

The Primary goal of OP treatment is to reduce the risk of fracture and sustain the benefit of treatment. The secondary goal is to stabilize and improve the BMD, relieve symptoms of fracture, maximize physical functions and address secondary causes of OP, if any.

In this session, upon approval, I will discuss the state of OP as a disease, FDA approved medications available for its treatment including Estrogen, Calcitonin, Raloxifene, Bisphosphonates (Ibandronate, Alendronate, Risedronate, and Zoledronate), Denosumab and Teriparatide. Additionally I will discuss significant improvement of our understanding for bone biology with specific references to the role of WNT signaling in differentiation, proliferation and mineralization activity of the osteoblasts. Understanding the role of osteocytes in secreting Sclerostin, a natural WNT signaling blocker, led to the discovery of Romosozumab (Anti-Sclerostin). In phase II of a RCT of 419 postmenopausal women with OP, Romosozumab met all the primary and secondary endpoint in 12 month by increasing the BMD in the femoral neck and spine more than 4% and 11% respectively (a significantly higher rate than Alendronate and Teriparatide). Romosozumab 210 mg S.C. injection once a month caused MARKED, but transient increase in markers of bone formation. At the same time it caused MODEST, but persistent reduction in bone resorption markers. Phase III study of Romosozumab is under way.

Cathepsin K (CAT K) is one of 11 lysosomal cysteine proteases. CAT K is highly expressed in osteoclasts and is secreted into resorption space. It uniquely degrades type II collagen. In a RCT, 50 mg/ weekly Odanacatib, a CAT K inhibitor tested in 320 PMO patients, increased lumbar spine and hip BMD by 7.8% and 5.8 % in 36 month, and 11.9% vs 8.5% respectively in 5 years. In another study Odanacatib treatment reduced clinical vertebral and hip fractures by 72% ($P \leq 0.001$) and 47% ($P \leq 0.01$), respectively.

New approaches and delivery systems for Teriparatide and PTH (1-84) led to the approval of a weekly transdermal patch in Japan in 2012.

P2-4

Diagnostic value of Anti-Saccharomyces cerevisiae antibodies (ASCA) in Behcet's disease

Mohammad Hassan jokar

Departments of Rheumatology, School of Medicin, Mashhad University of Medical Sciences, Mashhad, Iran Diagnostic value of Anti-Saccharomyces cerevisiae antibodies (ASCA) in Behcet's disease

Introduction: Behcet's Disease (BD) is a general and progressive vasculitis and involves various organs. Its main etiology is not yet understood; however, immunologic and infectious causes and genetic predisposition have been proposed. Saccharomyces Cerevisiae is a type of yeast which is used in the bread and wine industries. Antibodies against this yeast have a well-proven role in inflammatory bowel diseases. The aim of the present study was to assess the frequency of Anti-Saccharomyces Cerevisiae Antibody (ASCA) and its relation to clinical symptoms and disease activity index in patients afflicted by BD.

Materials and Methods: Serum ASCA levels, determined by ELISA, were studied in Behcet's disease along with oral aphthosis, other rheumatologic diseases and healthy volunteers (n=30 in each group). In the BD group the disease activity index and different clinical symptoms were recorded during the study course.

Results: Serum level of ASCA in the four studied groups of BD, oral aphthosis, other rheumatologic disease and healthy volunteers was 9.18±9.69, 10.90±10.40, 11.29±17.96 and 8.86±5.31IU/ml, respectively; indicating no meaningful difference (p=0.811). The ASCA titer was not related to Behcet's disease severity (p=0.399). Serum level of ASCA in BD patients with oral aphthosis or with gastrointestinal symptoms was significantly higher than the other Behcet's Disease patients (p=0.012, p=0.014).

Conclusion: ASCS is not a valuable test for distinguishing BD from recurrent oral aphthosis or other connective tissue disorders. It also cannot be used for determining disease severity. However, it has a higher level in BD patients with oral aphthous ulcers and gastrointestinal symptoms.

P2-5

Iliopsoas Bursitis—An Unusual Presentation of Rheumatoid Arthritis

Mozhdeh zabihiyeganeh

Department of Rheumatology, Rasoule Akram hospital, Iran University of Medical Sciences, Tehran, Iran

Diagnostic uncertainty concerning the nature of an enlarging inguinal mass in an elderly Female with a history of hip pain from 3 month ago. Subsequent investigations by magnetic resonance imaging (MRI) showed that the enlarged iliopsoas bursa was the cause of her pelvic pain.

A 58-year-old woman with rheumatoid arthritis (RA) presented with persistent hip pain and an inguinal mass. Considerable liquid had collected inside the iliopsoas bursa, apparently not in communication with the hip joint, as shown by ultrasonography and magnetic resonance imaging (MRI). After 3 month she developed left inflammatory knee arthritis, she was treated by empiric antibiotic as a mistake septic arthritis diagnosis without any improvement. Laboratory investigations showed leukocytosis, mild anemia, elevated ESR and CRP and positive anti –CCP test. PPD test was negative. Fine needle aspiration was done under sono graphic guide which was negative for all microbiologic surveys. So besides discontinuation of antibiotic, Prednisolon and MTX was started which resulted in a dramatic therapeutic response. Bursitis should be suspected as the presenting symptom in RA patients with an inguinal mass, persistent groin pain or unilateral leg swelling. The lack of communication between the hip joint cavity and bursa may be considered as a favorable prognostic index. Steroid treatment should be always attempted in order to avoid surgery.

Figure shows Ilio-psoas bursa distention

P2-6

Evaluation of oxidant and anti-oxidant balance in Behcet disease and it's correlation with disease activity

Seyyedeh Zahra Mirfeizi[1*], Mohammad Hasan Jokar[2], Vahid Yahyavi Alvar[1]

[1] Rheumatic Diseases Research Center, School of Medicin, Mashhad University of Medical Sciences, Mashhad, Iran
[2] Departments of Rheumatology, School of Medicin, Mashhad University of Medical Sciences, Mashhad, Iran
Corresponding author: Zahra Mirfeizi, MD
Associate Professor of Rheumatology, Rheumatic Diseases Research Center (RDRC), Mashhad University of Medical Sciences, Mashhad, Iran.

Background: Behcet disease (BD) is a multi-system, progressive disease which usually presents with oral aphthous and genital ulcers. It may involve other organs such as eye, joints, nervous and vascular systems. Although the origin of BD is unknown, immunological, viral and toxic factors have been proposed to be responsible. The aim of this study is evaluation the oxidant/anti-oxidant balance (Redox Index) in Behcet disease and it's correlation with disease activity.

Methods: Thirty BD patients were enrolled the study regard to International Study Group (ISG 1992) criteria. Age and sex matched control group was selected from health hospital staff. 3, 3, 5, 5 tetramethylbenzene (TMB) was used to determine the oxidant/ anti-oxidant balance. In a first enzymatic reaction, TBM was oxidized to a colorful cation. In the second chemical reaction, the colorful cation was regenerated to colorless substance. So, a redox index was achieved.

Results: Redox index in BD group was significantly higher than healthy group (P=0.0140). Redox index mean varied significantly in different level of disease activity and was higher in patients with severe disease in comparison with moderate form (P=0.038). There was a direct correlation between disease activity and redox index (r=0.450, P=0.013). A positive correlation was observed between redox index and WBC count in patients (P=0.033).

Conclusions: Findings demonstrated the presence of oxidative stress in BD and the severity of BD has a moderate positive correlation with Redox index.

Keywords: Behcet disease, Oxidant / anti-oxidant balance, Disease activity

P2-7

The effect of progressive muscle relaxation on patients' anxiety with rheumatoid arthritis

Rezvan Yazdani[1], Karim Mowla[3], Sedigheh Faiazi[2], Vahab Khosravi[4]

[1] Msc of nursing, Shahrekord University of Medical Sciences, Shahrekord, Iran
[2] Dept. of Nursing, School of Nursing and Midwifery, Ahvaz Jundishapour University of Medical Sciences, Ahvaz, Iran
[3] Associate Professor of Internal Medicine. School of Medicine, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran
[4] Shahrekord University of Medical Sciences, Shahrekord, Iran Corresponding Author: Shahrekord University of Medical Sciences, Shahrekord, Iran

Introduction: Rheumatoid arthritis is a chronic disease that because of chronic, painful and debilitating nature has a deep impact on their life. The purpose of this study was to determine the effect of Progressive Muscle Relaxation Technique (PMRT) on patients' anxiety with RA.

Material and Method: This is a clinical trial study conducted in a rheumatologist' office. A total of 62 patients were randomaly divided into two groups of progressive muscle relaxation and control group. The experimental group exercised 20 minutes daily for eight weeks, while no intervention was made in the control group. The data collection tools were the demographic form and State-Trait Anxiety Inventory (STAI) that they were collected at first and last intervention session. Then data were analyzed using SPSS version 19.

Result: The average age of participants in this study was 49.6±9.78 years. 51participants (82.25%) were female and 11 (17.75%) were male. In the case group, mean score of State-Trait Anxiety decreased significantly in comparison to the control one after the intervention. ($p<0.0001$).

Conclusions: Our finding shows that progressive muscle relaxation training may be an effective therapy for improving anxiety in RA patients.

Keywords: Rheumatoid Arthritis, anxiety, Progressive Muscle Relaxation

P2-8

Study of Knowledge and Proficiency of General Physicians in Management of Patients with Low Back Pain

Mahnaz Abbasi[1], Zohreh Yazdi[2], Azadeh Heshmat[3]

[1] Associate Professor Of Rheumatology, Metabolic Disease Research Center, Qazvin University Of Medical Sciences, Qazvin, Iran

[2] Associate Professor Of Occupational Medicine, Metabolic Disease Research Center, Qazvin University Of Medical Sciences, Qazvin, Iran

[3] General Physician, Qazvin University Of Medical Sciences, Qazvin, Iran

Aim: Management of low back pain need adequate clinical skills, fine utilization of imaging studies and their appropriate explanation, particularly in non-specific low back pains. So, the present study was designed to determine knowledge and proficiency of general physicians in private offices of Qazvin city, Iran in management of patients with acute or chronic low back pain according to the related guideline in clinical skills.

Methods: One hundred fifty general physicians were randomly selected. The designed questionnaire which assess their knowledge in diagnosis, clinical findings, follow up, and treatment of low back pain was filled by them. The results were analyzed using appropriate statistical methods.

Results: Sixty physicians were male and 90 were female. 66.7% of the studied physicians reported that they never use the related guideline in clinical skills during management of their patients. 26.7% reported they have seen the guideline, but they have not studied it yet. Only 6.6% of them were familiar with the guideline and use it during their routine practices. Mean correct answer to the asked questions were 67%, 57%, 45%, and 44% in the fields of follow up, clinical findings, treatment, and diagnosis, respectively.

Conclusion: Results of the current study showed that the knowledge and proficiency of general physicians is unsatisfactory in management of patients with low back pain. So, design and implementation of proper programs for training and retraining of the studying student and post-graduates is recommended to enhance the knowledge and proficiency of physicians in management of patients with low back pain

P2-9

Study of Sleep Quality, Quality of Life and Insomnia among Patients with Chronic Low Back Pain Compared to Normal Individuals

Mahnaz Abbasi[1], Zohreh Yazdi[2], Hasti Fatorechi[3]

[1] Associate Professor Of Rheumatology, Metabolic Disease Research Center, Qazvin University Of Medical Sciences, Qazvin, Iran

[2] Associate Professor Of Occupational Medicine, Metabolic Disease Research Center, Qazvin University Of Medical Sciences, Qazvin, Iran

[3] General Physician, Qazvin University Of Medical Sciences, Qazvin, Iran

Aim: Low back pain may affect various aspects of quality of life included sleep. There are some reports about prevalence of sleep disorders in patients with chronic low back pain. The present study was conducted to compare and difference in sleep quality, quality of life, and insomnia in patients with chronic low back pain vs. age and sex matched control group.

Methods: The present case-control study was performed on 140 persons (70 patients with chronic low back pain and 70 persons as control group). They were asked to fill Pittsburg questionnaire for evaluation of sleep quality, SF-36 questionnaire for evaluation of quality of life, and insomnia questionnaire. Also, severity of their back pain was assessed using visual analogue scale (VAS).

Results: Mean age of the studied persons was 49.88±11 and 48.33±10 years in the case and control groups, respectively (P-value>0.05). In each group, 31 persons were male. Individuals in the case group had worse sleep quality (correlation coefficient 0.478 with severity of pain), more severe insomnia (correlation coefficient 0.386 with severity of pain), and lower quality of life (correlation coefficient 0.665 with severity of pain), compared to the control group.

Conclusion: Results of the present study showed that patients with chronic low back pain had higher prevalence of insomnia, low quality of life, and bad sleep quality when judged against control group. Report of insufficient sleep may be predictive of chronic back pain which in turn may affect the patient's quality of sleep. It is recommended to the physicians who treat such patients that they should notice probability of sleep disorders in these patients and refer them to the related specialist, if needed.

P2-10

Alkaptonuria: Case report

Nayyereh Saadati[1], Mandana Khodashahi[2], Bahram Naghibzadeh[3]

[1] Associate Professor, Department of internal Medicine, Rheumatology, Ghaem Hospital, Medical Sciences University of Mashhad, Iran

[2] Fellow Ship Rheumatology, Department of Internal Medicine, Rheumatology, Ghaem Hospital, Medical Sciences University of Mashhad, Iran

[3] Researcher, Rheumatic Disease Research Center (RDRC), Ghaem Medical Center, Mashhad, Iran

Background: Alkaptonuria (AKU), also known as black urine disease, alcaptonuria, ochronosis as well, is a rare Mendelian autosomal recessive disorder, located on chromosome 3q21-q23, caused by deficiency of the homogentisate 1, 2 dioxygenase (HGO), an enzyme which normally catalyses the conversion of homogentisic acid (HGA) into maleylacetoacetic acid, in the tyrosine degradation pathway. It results in accumulation and deposition of homogentisic acid in cartilage, eyelids, forehead, cheeks, axillae, genital regions, nail beds, buccal mucosa, larynx, tympanic eardrum, and the tendons. This condition leads to a severe and crippling arthropathy. we present a case of AKU in a 53 year old woman in Mashhad.

Case Presentation: In this paper, we report a case of 53-year-old woman who presented with AKU and ochronotic pigment deposited in articular cartilage, sclera, cartilage of the ear and degenerative arthropathy in Ghaem Hospital, in Mashhed. The features include arthritis of the spine and in larger peripheral joints. The problem began about 9 years ago with a history of darkening of urine and discoloration of sclera, ears and hands. In imaging studies, there were degenerative changes in spine. She also underwent hand biopsy which showed Ochronotic pigmentation.

Conclusion: This case report that shows AKU must be considered in the evaluation of low back pain of patients bluish discoloration, ochronotic pigment deposited in of cartilage tissues, cartilage of the ear, sclera and hands. Therapeutic options include protein restriction, administration of high dose vitamin C or nitisonone.

Keywords: Alkaptonuria, Ochronosis, skin lesion, Degenerative arthropathy.

P2-11

Evaluation of Hospitalized children with Henoch–Schöenlein purpura

Shokoufeh Ahmadipour[1], Azam Mohsenzadeh[1], Saeedeh Ahmadipour[2]

[1] Pediatrics department, Lorestan University of medical sciences, Khorramabad, Iran
[2] Pharmacosiotic's Student, Isfahan University of medical sciences, Isfahan, Iran

Introduction: Henoch-Schönlein purpura (HSP) is an acute IgA mediated disorder characterized by a generalized vasculitis involving the small vessels of the skin (purpura), the gastrointestinal tract, the kidneys, the joints, and, rarely the central nervous system. The cause of HSP is unknown. No specific diagnostic laboratory test is available to assess for markers of HSP.

Materials and methods: this descriptive cross-sectional study was conducted in all children admitted with a diagnosis of HSP in khorramabad pediatric hospital during 90-93. Variables were studied, such as: age, sex, history of respiratory infection, clinical and para-clinical parameters, treatment, and complications. Data were collected by questionnaire and were analyzed by SPSS software.

Findings: 45 patients were studied who 41.6%, had ages between 8-10 year. Most of the children (60%) were male. 40% were admitted in winter. There was respiratory infection in 66.6% of patients. Skin symptoms were seen in all patients. 50% of patients had angioedema also.83% had arthritis and GI manifestation, 75% had fever and lethargy. Laboratory abnormalities were such as: 70% elevated ESR, 60% leukocytosis with neutrophil and 66% eosinophilia. The steroid therapy was administered in 25% of patients. Course of the disease in all patients was 1-3 weeks and the mean time of hospitalization was one week. There was no renal complication.

Conclusion: Henoch disease is a common childhood vasculitis which the pediatricians should know it's symptoms and treatment.

Keywords: Henoch, purpura, children

P2-12

The Study of Subjective Norms on Self-Care Behaviors among Knee Osteoarthritis Patients

Sakineh Gerayllo[1], Mohammad ali Morowatisharifabad[2], Abdurrahman Charkazi[3], Zohreh Karimiankakolaki[4]

[1] Corresponding Author: MSc Health Education, Public Health Department, School of Health, Golestan University of Medical Sciences, Gorgan, Iran. Email: gerayllo65@yahoo.com

[2] Associate Professor, Department of Disease Control, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

[3] Assistant Proffesor, PhD in Health Education, Public Health Department, School of Health, Golestan University of Medical Sciences, Gorgan, Iran

[4] MS.c Health Education, Public Health Department, Isfahan University of Medical Sciences, Isfahan, Iran

Aim: Knee Osteoarthritis is a common disease of skeletal system which can cause to disability. Subjective norms is considered as people's perception from social pressure as well as normative beliefs which determin the significant others approve and disapprove regarding with health behaviors. The purpose of the current study was to investigating of subjective norms on behavior intention in knee osteoarthritis patients self-care behaviors who attained to rheumatological centers of Yazd city in 2014.

Methods: In a cross-sectional design, 235 patients who attained to health centers of Yazd city were selected through simple random samplig method. Data gathered using a valid and reliable questionnaire which included selected demographic varriables, subjective norms, and self-care intention behaviors. Gathered data were analyzed using appropriate tests in SPSS ver.18 software. Alpha level set at 0.05.

Results: The mean and S.D age of the subjects was 54.9±9.15 years old and their BMI was 28.8±4.6. The mean and S.D score of subjective norms with regarding self-care behaviors was 81.76±10.28 from 110 and their self-care intention was 43.62±4.62 from 55. There was a significant relationship between subjective norms and self-care intention behaviors (p=0.04). On average, the highest score on the subjective norms, "a regular referred to the doctors and the doctor's recommendations" by doctors and relatives and In line with intention, "intention to using suitable shoes in next 6 months" was the highest rank.

Conclusion: The findings of the study revealed that significant others Including the doctors and family can influence on the patients and familiar them with health life style. Besides, They can influence on the subjects attitudes and were considered as approval source of a healthy behaviors.

Keywords: Knee Osteoarthritis, Self-Care, Subjective Norms, Intention Behavior.

P2-13

Evaluation of patients with Kawasaki disease in Children's Hospital of Khorramabad 74-93

Azam Mohsenzadeh. Ahmadipour SH

Lorestan University of Medical Sciences

Introduction: Kawasaki disease is an acute febrile vasculitis of unknown etiology. Almost all of the complications and mortality associated with Kawasaki syndrome is the result of cardiac complications. The aim of this study was to evaluate with Kawasaki disease in children hospitalized in Children's Hospital of Khorramabad 74-93.

Materials and methods: In this study, all the patients with diagnosis of Kawasaki admitted were evaluated. The studied variables included age, sex, clinical and para-clinical, treatment, duration and complications. Data were collected and analyzed by SPSS.

Results: Of 50 patients 63% male and 37% female. Male to female ratio was 1.7 to 1. 84% of patients less than 5 years. 20% are younger than 12 months, 26% aged 13 to 24 months, 38% aged 25 to 60 months and 16% were older than 61 months. 45% of patients were admitted in the spring. The mean hospital stay was 7 days. All (100%) patients had fever, 85% changes in mucosa and lips, 84% of non -purulent bilateral Conjunctivitis, 40%lymphadenopathy, 80% rashes, and 84% had limbs scaling. Coronary artery aneurysm in a patient was seen. Laboratory findings: hemoglobin 50% under 10, white blood cells 52% more than 15,000, platelets in 20% over 700,000, 80% of ESR> 70 and 70% of patients had CRP Positive. None of the children in case of Kawasaki disease recurrence was observed. In parents or their children, there was no previous history of Kawasaki disease.

Discussion and Conclusion: Our study showed that Kawasaki were more common in boys at ages 25 to 60 months. The majority of patients had fever, rashes, scaling, changes in mucosa and lips and bilateral non- purulent Conjunctivitis.

Keywords: Kawasaki disease, children

AUTHOR INDEX