6th International Musculoskeletal Ultrasound Course

28 - 30 Nov 2019
Athens, Greece

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Musculoskeletal Imaging Techniques - Ongoing Sonography
A task force for Greek Rheumatologists

Scientifically Endorsed by eular
ORGANIZATION AND COMMITTEE

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Local Organizer:
M.I.T.O.S. (Musculoskeletal Imaging Techniques: Ongoing Sonography- a Task Force for Greek Rheumatologists)

Faculty
The speakers will come from major European musculoskeletal ultrasound research centers and are rheumatologists mostly involved in previous EULAR courses. The contacted faculties are:

Organizing Committee
Giasna G. Kakavouli
Dimitrios Karokis
Ioannis Raftakis
Caterina Siagkri

Scientific Committee
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Goran Radunović, Serbia
Ioannis Raftakis, Belgium
Nemanja Damjanov, Serbia
Peter Balint, Hungary
Peter Mandl, Austria
Slavica Prodanović, Serbia

Theodoros Natskos, Greece

General Information
Course’s opening: Thursday, November 28th, 2019 - h 12.00
Course’s closing: Saturday, November 30th, 2019 - h 16:30
Participants: The number of participants in each of the Courses will be limited to 48
Official language: English
Congress Venue: Wyndham Grand Athens, Athens, Greece

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OBJECTIVES:
- To learn technical characteristics and setting of ultrasound equipment for rheumatology.
- To learn the systematic standardized sonographic scanning method of each anatomical region, according to the EULAR guidelines.
- To learn basic normal musculoskeletal ultrasonographic (MSUS) anatomy.
- To learn basic pathological MSUS findings.

MAIN TOPICS:
- Ultrasound physics and technology, technical characteristics of ultrasound equipments in rheumatology, applications, indications and limitations of MSUS.
- MSUS anatomy, artifacts and misinterpretation in MSUS.
- Standardized sonographic scanning method of each anatomical region (shoulder, elbow, wrist and hand, hip, knee, ankle and foot) according to the EULAR guidelines.
- Basic pathological sonographic findings (tendinosis, tenosynovitis, partial and complete tendon tear, enthesopathy, bursitis, calcifications, articular cartilage lesions, cortical abnormalities, erosions and joint synovitis).
- Reporting MSUS findings and diagnosis.

WORKSHOPS:
- Practical handling of the ultrasound machine settings.
- Supervised identification of musculoskeletal sonoanatomy.
- Supervised standardized sonographic scanning of the shoulder, elbow, wrist and hand, hip, knee, ankle and foot.
- Supervised hands-on scanning of patients with basic musculoskeletal lesions.
SCIENTIFIC PROGRAM

Thursday - November 28th, 2019

12:00 - 14:00  Registration
12:00 - 13:30  Lunch
13:30 - 13:45  Welcome
A. Iagnocco, G.G. Kakavouli, D. Boumpas, D. Vasilopoulos
13:45 - 14:00  Entering test of knowledge - Basic Level
J. Raftakis
Chairpersons: A. Iagnocco, J. Raftakis

14:15 - 14:45  Technical characteristics and setting of ultrasound equipments for Musculoskeletal diseases
J. Raftakis

14:45 - 15:00  Mini break - hall changing
Chairpersons: F. Porta, A. Bachta

15:00 - 15:25  History and basic physics of MSUS
A. Bachta
15:25 - 16:00  Musculoskeletal anatomy. Sonographic pattern of the musculoskeletal tissues
P. Mandl
16:00 - 16:30  Artifacts and misinterpretation in MSUS
F. Porta
16:45 - 17:00  Coffee break

17:00 - 18:00  Workshop: Supervised use of the US equipment and settings
18:00 - 19:00  Workshop: Supervised Ultrasound assessment of the normal musculoskeletal tissues
Chairpersons: A. Iagnocco, D. Karokis

19:00 - 19:30  Application of US in the management of Musculoskeletal Diseases
A. Iagnocco
19:30 - 21:00  Workshop: Supervised ultrasound scanning in people with Musculoskeletal Diseases

21:00  Dinner
SCIENTIFIC PROGRAM

Friday, November 29th, 2019

Chairpersons: A. Iagnocco, G.G. Kakavouli

09:00 - 09:30  Sonographic semiology; US and correlative anatomy and histology: articular cartilage lesions, cortical abnormalities; Basic pathology of tendons and ligaments (tendinosis, calcifications, tears)
N. Damjanov

Live demo - A. Delle Sedie

09:30 - 10:00  Basic synovial US lesions: synovitis, synovial hypertrophy, tenosynovitis and bursitis; Definition, detection and quantification
A. Iagnocco

10:00 - 10:30  Basic synovial US lesions: Enthesitis and enthesopathy
P. Balint

10:30 - 11:00  Coffee break

11:00 - 12:45  Workshop: US semiology: normal and basic pathological findings (abnormalities of hyaline cartilage, cortical bone, synovial membrane, tendons, ligaments, bursae)
Chairpersons: N. Damjanov, C. Siagkri

12:45 - 13:15  Standardized scanning of the shoulder normal and basic pathological findings
C. Siagkri

Live demo - N. Damjanov

13:15 - 13:45  Standardized scanning of the elbow: normal and basic pathological findings
A. Raptopoulou

Live demo - N. Damjanov

13:45 - 14:30  Lunch

14:30 - 17:00  Workshop: Supervised scanning of the shoulder and the elbow. Normal and basic pathological findings
Chairpersons: P. Balint, D. Karokis

17:00 - 17:30  Standardized scanning of the wrist and hand: normal and basic pathological findings
D. Karokis

Live demo - P Balint

17:30 - 18:00  Standardized scanning of the hip: normal and basic pathologic findings
G. Kampakis

Live demo - P Balint

20:00  Dinner
SCIENTIFIC PROGRAM

Saturday, November 30th, 2019

09:00 - 10:45  Workshop: Supervised Ultrasound scanning of the hand, wrist and hip. Normal and basic pathological findings.

10:45 - 11:00  Coffee Break
Chairpersons: A. Iagnocco, S. Prodanovic

11:00 - 11:30  Standardized scanning of the knee: normal and basic pathological findings
J. Raftakis
Live demo - A. Delle Sedie

11:30 - 12:00  Standardized scanning of the ankle and foot: normal and basic pathological findings
S. Prodanovic
Live demo - A. Delle Sedie

12:00 - 12:30  Image documentation; reporting of US findings
G. Radunovic

12:30 - 13:30  Light lunch

13:15 - 14:45  Workshop: Supervised ultrasound scanning of the knee, ankle and foot. Normal and basic pathological findings.
Chairpersons: G.G. Kakavouli, N. Damjanov

14:45 - 15:15  Basic skills in sonographic guided arthrocentesis
N. Damjanov

15:15 - 16:15  Workshop: Basic skills in sonographic-guided arthrocentesis

16:15 - 16:30  Exit test of knowledge

16:30 - 16:45  Closing remarks and certificate issue
OBJECTIVES:
• To review the systematic standardized sonographic scanning method of each anatomical region, according to the EULAR guidelines
• To learn Colour and Power Doppler physics, application, indications and limitations
• To learn definition, ultrasound presentation and quantification of synovitis, synovial hypertrophy, effusion, erosion, tendinopathy, tenosynovitis, enthesopathy and degenerative lesions
• To assess, quantify and/or score joint lesions
• To learn basic skills to perform sonographic-guided musculoskeletal injections
• To understand the role of musculoskeletal US in clinical and research practice

MAIN TOPICS:
• Role of Colour and Power Doppler in rheumatology
• Colour and power Doppler physics and technology
• Applications, indication and limitations of Colour and Power Doppler
• Ultrasound presentation of synovitis, effusion, erosions, tendinopathies, tenosynovitis, enthesitis and degenerative lesions
• Role of ultrasound in diagnosis and monitoring of metabolic arthritis
• Role of ultrasound in monitoring patients with inflammatory joint diseases
• Standards of safety of ultrasound-guided punctures and injections sonographic system

WORKSHOPS:
• Practical handling of the ultrasound machine settings and use of Colour and Power Doppler technology
• Supervised scanning of the patients with inflammatory and degenerative joint disease focused on detection of synovitis, effusion, erosions, tendinopathies, tenosynovitis, enthesitis and degenerative lesions.
• Supervised basic sonographic-guided musculoskeletal injections
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Chairpersons</th>
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</thead>
<tbody>
<tr>
<td>12:00 - 14:00</td>
<td>Registration</td>
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<td>12:00 - 13:30</td>
<td>Lunch</td>
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<tr>
<td>14:00 - 14:15</td>
<td>Entering test of knowledge - Intermediate Level</td>
<td><strong>J. Raftakis</strong></td>
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<td>14:15 - 14:45</td>
<td>Sonographic pattern of the musculoskeletal tissues and technical characteristics and setting of ultrasound equipments for rheumatology</td>
<td><strong>J. Raftakis</strong></td>
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<td>14:45 - 15:00</td>
<td>Mini break - hall changing</td>
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<td>15:00 - 16:45</td>
<td>Workshop: Supervised ultrasound scanning. How to use and set the ultrasound equipment. The choice of appropriate probe an of the Doppler modalities. Optimisation of Doppler settings. Doppler ultrasound artefacts</td>
<td><strong>A. Iagnocco, J.Raftakis</strong></td>
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<td>16:45 - 17:00</td>
<td>Coffee break</td>
<td><strong>A. Iagnocco, G. Filippou</strong></td>
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<td>17:00 - 17:25</td>
<td>Doppler physics, technology and artefacts. Doppler setting optimization</td>
<td><strong>G. Filippou</strong></td>
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<td>17:25 - 17:50</td>
<td>Application, indications and limitations of Doppler in musculoskeletal US</td>
<td><strong>G. Katsifis</strong></td>
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<td>17:50 - 18:15</td>
<td>Colour Doppler and power Doppler. Correlations between US imaging and histopathological findings</td>
<td><strong>A. Delle Sedie</strong></td>
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<td>18:15 - 18:45</td>
<td>B-mode and Doppler synovitis. Definition, detection, quantification and pitfalls</td>
<td><strong>A. Iagnocco</strong></td>
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<td>18:45 - 19:15</td>
<td>B-mode and Doppler tenosynovitis. Definition, detection, quantification and pitfalls</td>
<td><strong>F. Porta</strong></td>
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<tr>
<td>20:00</td>
<td>Dinner</td>
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</table>
SCIENTIFIC PROGRAM

Friday, November 29th, 2019

09:00 - 11:00  Workshop: Supervised ultrasound scanning of patients with synovitis and tenosynovitis  
Chairpersons: P. Mandl, G.G. Kakavouli

11:00 - 11:25  Tendinosis and tendon tear. Definition, detection, quantification and pitfalls  
G.G. Kakavouli

11:25 - 11:50  US bone abnormalities. Definition, detection, quantification and pitfalls  
C. Siagkri

11:50 - 12:15  B-mode and Doppler enthesopathy and enthesitis. Definition, detection, quantification and pitfalls  
P. Balint

12:15 - 12:45  US cartilage abnormalities. Definition, detection, quantification and pitfalls  
G. Radunovic

12:45 - 14:15  Workshop: Supervised ultrasound scanning of patients enthesopathy/enthesitis, tendinosis and tendon tear, bone and cartilage abnormalities

14:15 - 15:00  Lunch  
Chairpersons: G.G. Kakavouli, C. Siagkri

15:00 - 15:30  US diagnosis of hip pathology  
P. Mandl

Live demo - P. Balint

15:30 - 16:00  US diagnosis of knee pathology  
G.G. Kakavouli

Live demo - P. Balint

16:00 - 16:30  US diagnosis of ankle and foot pathology  
C. Siagkri

Live demo - P. Balint

16:30 - 17:00  Coffee Break

17:00 - 19:30  Workshop: Supervised hands-on scanning of patients with lower extremity pathology

20:00  Dinner
SCIENTIFIC PROGRAM

Saturday, November 30th, 2019

Chairpersons: J. Raftakis, D. Karokis

09:00 - 09:30 US diagnosis of shoulder pathology
G.G. Kakavouli
Live demo - P. Mandl

09:30 - 10:00 US diagnosis of elbow pathology
J. Raftakis
Live demo - P. Mandl

10:00 - 10:30 US diagnosis of wrist and hand pathology
D. Karokis
Live demo - P. Mandl

10:30 - 10:45 Coffee Break

10:45 - 12:45 Workshop: Supervised hands-on scanning of patients with upper extremity pathology

12:45 - 13:30 Light Lunch
Chairpersons: P. Mandl, N. Damjanov

13:30 - 14:00 US: a tool for diagnosis and outcome measure in Rheumatology
P. Mandl

14:00 - 14:30 US in therapy monitoring
S. Prodanovic

14:30 - 15:00 Basic skills in sonographic-guided arthrocentesis
N. Damjanov
Live demo - N. Damjanov

15:00 - 16:15 Workshop: Basic skills in sonographic-guided arthrocentesis

16:15 - 16:30 Exit tests of knowledge

16:30 - 16:45 Closing remarks and certificate issues