Basic and Intermediate Levels

7th International Musculoskeletal Ultrasound Course

3rd - 5th December, 2020
Royal Olympic Hotel
Athens, Greece

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

Scientifically Endorsed by eular
fighting rheumatic & musculoskeletal diseases together
ORGANIZATION AND COMMITTEE

Scientific Director:
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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:

Faculties:
Annamaria Iagnocco, Italy
Ahmed Abogamal, Egypt
Amalia Raptopoulou, Greece
Andrea Delle Sedie, Italy
Artur Bachta, Poland
Caterina Siagkri, Greece
Dimitris Karokis, Greece
Francesco Porta, Italy
Georgios Filippou, Italy
Georgios Kampakis, Greece
Giasna Giokits-Kakavouli, Greece
Gkikas Katsifis, Greece
Ioannis Raftakis, Greece
Nemanja Damjanov, Serbia
Peter Balint, Hungary
Peter Mandl, Austria
Slavica Prodanović, Serbia

Instructors:
Amalia Raptopoulou, Greece
Ahmed Abogamal, Egypt
Andrea Delle Sedie, Italy
Arthur Bachta, Poland
Caterina Siagkri, Greece
Dimitris Karokis, Greece
Francesco Porta, Italy
Georgios Filippou, Italy
Georgios Kampakis, Greece
Giasna Giokits-Kakavouli, Greece
Nemanja Damjanov, Serbia
Ioannis Raftakis, Greece
Peter Balint, Hungary
Peter Mandl, Austria
Slavica Prodanović, Serbia
Athanasios Fortis, Greece
Theodoros Natskos, Greece
Courses opening  Thursday, December 3rd, 2020 - h 12.00  
Courses closing  Saturday, November 5th, 2020 - h 16:30  
Participants  The number of participants in each of the Courses will be limited to 48  
Official language  English  
Congress Venue  Royal Olympic Hotel, 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 – December 3rd, 2020

12.00 - 14.00  Registration
12.00 - 13.30  Lunch
13.30 - 13.45  Welcome
   A. Iagnocco, G. Giokits-Kakavouli, D. Boumpas, D. Vasilopoulos
13.45 - 14.00  Entering test of knowledge - Basic Level
   J. Raftakis
14.00 - 14.15  Entering test of knowledge – Intermediate 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
15.00 - 16.30  Workshop: Supervised practical handling of the ultrasound machine settings
16.45 - 17.00  Coffee break
   Chairpersons: F. Porta, A. Bachta
17.00 - 17.25  History and basic physics of MSUS
   A. Bachta
17.25 - 18.00  Normal tissue and joint anatomy; Sonographic pattern of the musculoskeletal tissues
   P. Mandl
18.00 - 18.30  Artifacts and misinterpretation in MSUS
   F. Porta
18.30 - 19.30  Workshop: Supervised practical handling of the normal MSUS anatomy
   Chairpersons: G. Kampakis, A. Iagnocco
19.30 - 20.00  Image documentation; reporting US findings and diagnosis
   G. Kampakis
20.00 - 21.00  Workshop: Hands - on session; normal MSUS anatomy and basic pathological findings
21.00  Dinner
SCIENTIFIC PROGRAM

Friday, December 4th, 2020

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  Enthesitis and enthesopathy
P. Balint

10.30 - 11.00  Coffee break

11.00 - 12.45  Workshop: US semiology: normal and basic pathological findings
Chairpersons: N. Damjanov, C. Siagkri

12.45 - 13.15  Standardized scanning of 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 technique of shoulder; supervised scanning technique of 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, December 5th, 2020

09.00 - 10.45  **Workshop**: Supervised hands-on scanning of patients with inflammatory and degenerative hand, wrist and hip

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 **US Application in management of Musculoskeletal Disorders**
A. Iagnocco

12.30 - 13.15 **Light lunch**

12.15 - 14.45  **Workshop**: Supervised hands-on scanning of patients with inflammatory and degenerative knee, ankle and foot

Chairpersons: G. Giokits-Kakavouli, N. Damjanov

14.45 - 15.15 **Basic skills in sonographic guided arthrocentesis**
N. Damjanov

15.15 - 15.45  **Workshop**: Basic skills in sonographic-guided arthrocentesis

15.45 - 16.00 Exit test of knowledge

16.00 - 16.30 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
SCIENTIFIC PROGRAM

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12.00 - 14.00  Registration
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13.45 - 14.00  Entering test of knowledge - Basic Level
    J. Raftakis
14:00 - 14:15  Entering test of knowledge – Intermediate 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: A. Iagnocco, G. Filippou
15.00 - 15.20  Doppler physics, technology and artefacts. Doppler setting optimization
    G. Filippou
15.20 - 15.40  Application, indications and limitations of Doppler in musculoskeletal US
    G. Katsifis
15.40 - 16.00  Colour Doppler and power Doppler. Correlations between US imaging
    and histopathological findings
    A. Delle Sedie
16.00 - 16.30  Coffee break
16.30 - 18.15  Workshop: Supervised practical scanning of the different Doppler
    modalities. How to use and set the ultrasound equipment. The choice of
    the appropriate probe. Optimisation of Doppler settings. PDUS artefacts
    Chairpersons: A. Iagnocco, F. Porta
18.15 - 18.45  B-mode and Doppler synovitis. Definition, detection, quantification and
    pitfalls
    A. Iagnocco
18.45 -19.15  B-mode and Doppler tenosynovitis. Definition, detection, quantification
    and pitfalls
    F. Porta
20.00  Dinner
SCIENTIFIC PROGRAM

Friday, December 4th, 2020

08.00 - 09.30  **Workshop:** US semiology - pathological findings

09.30 - 11.00  **Workshop:** Supervised hands-on scanning of patients with inflammatory and degenerative joint disorders; How to detect and quantify synovitis (including Power Doppler), cartilage and bony lesions

Chairpersons: **P. Balint, G. Giokits-Kakavouli**

11.00 - 11.25  B-mode and Doppler tendinosis and tendon tear. Definition, detection, quantification and pitfalls

**A. Bahta**

11.25 - 11.50  US bone abnormalities. Definition, detection, quantification and pitfalls

**A. Abogamal**

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

**A. Abogamal**

12.45 - 14.00  **Workshop:** Supervised hands-on scanning of patients with synovitis and tenosynovitis, enthesopathy/enthesitis, tendinosis and tendon tear, bone and cartilage abnormalities

14.00 - 15.00  Lunch

Chairpersons: **G. Giokits-Kakavouli, C. Siagkri**

15.00 - 15.30  US diagnosis of hip pathology

**P. Mandl**

**Live demo – P. Mandl**

15.30 - 16.00  US diagnosis of knee pathology

**G. Giokits- Kakavouli**

**Live demo – P. Mandl**

16.00 - 16.30  US diagnosis of ankle and foot pathology

**C. Siagkri**

**Live demo – P. Mandl**

16.30 - 17.00  **Coffee Break**

17.00 - 19.00  **Workshop:** Supervised hands-on scanning of patients with lower extremity pathology

20.00  **Dinner**
Saturday, December 5th, 2020

Chairpersons: J. Raftakis, D.Karokis

09.00 - 09.30 US diagnosis of shoulder pathology
G.Giokits-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, A. Iagnocco

13.30 -13.50 US: a tool for diagnosis and outcome measure in Musculoskeletal ultrasound
A. Iagnocco

13.50 - 14.20 Role of US in the diagnosis of crystal arthropathy and periarticular tissue (gout, CPPD)
P. Mandl

14.20 - 14.50 Basic skills in sonographic-guided arthrocentesis
N. Damjanov
Live demo – N. Damjanov

14.50 - 15.50 Workshop: Basic skills in sonographic-guided arthrocentesis

16.00 - 16:15 Exit tests of knowledge and

16:15 - 16.45 Closing remarks and certificate issues