

## EULAR On-line Course on Systemic Sclerosis

Start each September

(Completion and final exam in June, 2nd year extension possible)

- 6 months of educational training on Systemic Sclerosis entirely on line
- More than 80 faculty members mainly from Europe and US
- 10 Modules corresponding to roughly 50 hours of study
- Regular evaluation of knowledge, final examination on line and certificate given by EULAR if passed
- Course fee: 115€ **Discounted price for low and middle income countries with GDP below 10'000US\$: EUR 86.**

### MODULE 1: Introduction Module

- Core material**
- a. Systemic sclerosis (diagnosis, differential diagnosis, evaluation of lab tests);
  - b. Localized scleroderma;
  - c. Epidemiology;
  - d. Activity;
  - e. Severity, damage
- In-depth discussion 1:** Role of autoantibodies in the differential diagnosis in SSc.
- In-depth discussion 2:** Differential diagnosis of scleroderma like disorders. Environmental provoking factors
- Interactive clinical case 1:** Typical severe diffuse SSc patient with multiple organ involvement. Follow up, regular evaluation of disease activity
- Interactive clinical case 2:** Late limited SSc with complications (ulcer, PAH, GI) (Treatment excluded)

### MODULE 2: Pathogenesis

- Core material**
- a. Synthesis: early and late pathological events in scleroderma
  - b. Endothelial - vascular changes;
  - c. Fibrosis;
  - d. Immunological changes
  - e. Autoantibodies, autoimmunity;
  - f. Genetics
- In-depth discussion 1:** Potential vascular and fibrosis targets for drug intervention
- In-depth discussion 2:** Potential immunological targets for drug intervention
- Interactive clinical case 1:** Typical early, severe diffuse SSc patient – skin biopsy findings and their relationship to pathogenesis
- Interactive clinical case 2:** Case history of a SSc patient underwent to ABMT

### MODULE 3: Clinical manifestations: skin, peripheral vascular

- Core material**
- a. Skin involvement;
  - b. Raynaud phenomenon
  - c. Macro- and microvasculopathy, ulcers, gangrene
- In-depth discussion 1:** Assessment of skin involvement
- In-depth discussion 2:** Assessment tools of microvasculopathy
- Interactive clinical case 1:** SSc case with severe Raynaud's phenomenon and ulcers
- Interactive clinical case 2:** Case history of a patient with lower limb necrosis

### MODULE 4: Heart involvement

EULAR Secretariat | Seestrasse 240 | 8802 Kilchberg | Switzerland  
T: +41 44 716 30 30 | F: +41 44 716 30 39  
M: eular@eular.org | W: www.eular.org

- Core material**
- a. Clinical consequences of functional and pathologic changes;
  - b. Diastolic dysfunction, Arrhythmia, conduction abnormalities;
  - c. Ischemic disease, vasospasm; d. Pericarditis
- In-depth discussion 1:** Non-invasive and invasive assessment of heart involvement
- In-depth discussion 2:** Heart MRI
- Interactive clinical case 1:** SSc case with severe diastolic impairment
- Interactive clinical case 2:** Case history of a patient arrhythmia

#### **MODULE 5: Pulmonary interstitial/vascular involvement**

- Core material**
- a. ILD; b. PAH
- In-depth discussion 1:** Assessment of pulmonary interstitial involvement
- In-depth discussion 2:** Assessment of PAH
- Interactive clinical case 1:** SSc case with severe and progressive ILD and PH associated ILD
- Interactive clinical case 2:** Case history of a SSc-PAH patient with VOD

#### **MODULE 6: Clinical manifestations: GI**

- Core material**
- a. Oral, astro-esophageal;
  - b. Small Intestinal involvement;
  - c. Intestinal-colon, anal
- In-depth discussion 1:** Assessment of GI involvement
- In-depth discussion 2:** Cause and consequences of decreased motility
- Interactive clinical case 1:** SSc case with severe bacterial overgrowth
- Interactive clinical case 2:** Case history of a patient with pseudo obstruction

#### **MODULE 7: Clinical manifestations: Kidney**

- Core material:**
- a. Clinical characteristics and pathology of kidney involvement
- In-depth discussion 1:** Provoking factors, assessment of kidney involvement
- In-depth discussion 2:** Characteristics of normotensive scleroderma renal crisis
- Interactive clinical case 1:** SSc case with a sudden onset of scleroderma renal crisis
- Interactive clinical case 2:** Case report of a normotensive scleroderma renal crisis

#### **MODULE 8: Clinical manifestations: Musculoskeletal, disability**

- Core material**
- a. Joint involvement, synovitis;
  - b. Muscle involvement in SSc; Scleroderma- myositis overlap syndromes;
  - c. Hand function in SSc;
  - d. Pain, fatigue, Quality of life, disability
- In-depth discussion 1:** Instruments for the evaluation of disability, QUOL, hand function, muscle strength
- In-depth discussion 2:** Characteristics of the different forms of muscle involvement
- Interactive clinical case 1:** SSc case with synovitis and joint destruction
- Interactive clinical case 2:** Case history of a patient with scleroderma-myositis overlap

#### **MODULE 9: Management**

- Core material**
- a. Strategy in patient management;
  - b. Patient education and lifestyle advices;
  - c. Rehabilitation (including hands);
  - d. Potential DMARDS;

- e. Vasodilators;
- f. Immunosuppression and HSCT

**In-depth discussion 1:** Treatment options for PAH:

**In-depth discussion 2:** Cyclophosphamide treatment for interstitial lung involvement

**Interactive clinical case 1:** SSc patient with PAH

**Interactive clinical case 2:** A SSc patient treated with cyclophosphamide for interstitial lung involvement

## **MODULE 10: Special conditions**

- Core material**
- a. Life threatening conditions, emergencies;
  - b. Pregnancy, gynecological problems;
  - c. Early scleroderma, prescleroderma:based assessment

**In-depth discussion 1:** Erectile dysfunction

**In-depth discussion 2:** Systemic sclerosis sine scleroderma

**Interactive clinical case 1:** Patient with a very early scleroderma

**Interactive clinical case 2:** A SSc patient suffering from severe erosive arthritis