Overlap Syndrome

• Patients with overlap syndrome can have features of systemic lupus erythematosus, systemic sclerosis, polymyositis, or dermatomyositis, with rheumatoid arthritis and Sjögren's syndrome evolving concurrently or consecutively during the course of the disease.
Overlap Syndrome

• More common in females than males

• Patient have symptoms of different connective tissue diseases

• Some overlaps are

  • SLE/RA
  • SLE/Scleroderma
  • SLE/Myositis
  • SLE/Sjogren’s
Overlap Syndrome

- Multisystem disease process
- Multiple organs can be involved at the same time
- There is loss of self tolerance in autoimmune diseases
- It is possible to have more than one disease active at the same time
Lupus and Rheumatoid Arthritis

- Patient with lupus can have inflammatory arthritis
- This is usually not associated with joint destruction
- Patient with lupus and RA overlap have increased joint pain and joint swelling
- These patients are at higher risk of joint damage
- Patients with Lupus and inflammatory arthritis are commonly treated with Plaquenil/Steroids
Lupus and Rheumatoid Arthritis

• Patients with predominant RA/SLE, are treated more aggressively

• Treat with medications that have shown to decrease the progression of joint damage
  • Methotrexate
  • Leflunamide
  • Sulfasalazine
  • Biologics

• Certain biologics may exacerbate lupus and have to be used with caution
Lupus and Sjogren’s

• Henrik Sjögren was a Swedish ophthalmologist, the first to recognize that dry eyes and dry mouth were often found in people with connective tissue diseases

• Sjögren’s syndrome - a syndrome describing dry eyes and dry mouth due to immune-mediated destruction of exocrine glands, predominately of lacrimal and salivary.
Lupus and Sjogren’s

- Primary Sjögren’s syndrome - characterized by Sicca complex and extra-glandular symptoms without any additional connective tissue disorder.

- Secondary Sjögren’s syndrome occurs in association with another autoimmune disorder such as SLE, RA, or scleroderma

- Prevalence of 1-3% of the population. It’s the third most common autoimmune rheumatic disease behind Rheumatoid arthritis and Systemic Lupus
Lupus and Sjogren’s

ETIOLOGY

• Exact etiology unclear. Genetically defective glandular tissue combined with immunologic, environmental or neuroendocrine factors leads to loss of self antigen awareness.

• Environmental factors may have link to viruses (Epstein–Barr virus, hepatitis C virus, human T-cell leukemia virus-1).

• After the initial trigger, this glandular tissue autoimmune complex then becomes infiltrated with lymphocytes.
Lupus and Sjogren’s

DIAGNOSTIC CRITERIA

• Diagnosis requires at least 2 out of the following 3

• Positive serum anti-SSA and/or anti-SSB or [positive rheumatoid factor and ANA ≥ 1:320]

• Ocular staining score ≥ 3;

• Presence of focal lymphocytic sialadenitis with focus score ≥ 1 focus/4mm2 in labial salivary gland biopsies.
Lupus and Sjogren’s

LABORATORY DATA

• Marked hypergammaglobulinemia (IgG>IgA>IgM), elevated total protein and sedimentation rate, persistent rheumatoid factors, and a decreased WBC count.

• SS-A/Ro and SS-B/La (anti-RNA antibodies).

• Antibodies occur in approximately 60% of patients
Lupus and Sjogren’s

• Sjogren’s ab increase the risk of photosensitivity

• Presence of sjogren’s antibodies (SSA) increases the risk of sub acute cutaneous lupus

• Sjogren’s antibody presence increases the risk of heart blocks in fetus

• Patient with positive Sjogren’s ab should be closely monitored during pregnancy

• Sjogren’s ab can cause neonatal lupus, which is usually a self limiting condition
Lupus and Sjogren’s

CLINICAL MANIFESTATIONS

• Dry eyes
• Dry mouth
• Fatigue
• Photosensitivity
• Parotid gland swelling
• Constipation
• Inflammatory arthritis
Lupus and Sjogren’s

Treatment

• Using biotene based products for dry mouth

• At least bi-annual examination by dentist

• Regular fluoride treatment

• Medications for dry mouth like pilocarpine and cevelamine can be used to treat dry mouth

• Preservative free eye drops

• Local ophthalmic drops (cyclosporine ophthalmic drops)

• Immunosuppressant agents directed at organ system involved.
Lupus and Scleroderma

- Progressive disease involving the skin, connective tissues and on occasion internal organs
- There is increased deposition collagen in interstitium of small arteries and connective tissue
- Sclerotic changes in skin and internal organs
- Raynaud’s is present is almost 90% of the cases
Lupus and Scleroderma

CLASSIFICATION

• diffuse – skin thickening - trunk, face and limbs

• limited - skin thickening localized distally of elbows and knees, with face involvement, CREST

• sine scleroderma – without skin involvement (except of face), fibrotic changes of visceral organs, vascular and serological findings.

• overlap syndrome - fulfilled criteria of SSc and of SLE, RA or polymyositis

• undifferentiated connective tissue disease - Raynaud’s phenomenon with clinical and/or laboratory abnormalities - anticentromere antibodies, skin vascular trophic changes
Lupus and Scleroderma

TREATMENT

• Treatment of Scleroderma is driven by the organ system involved

• Cytoxan and Mycophenolate has been used in ILD associated Scleroderma

• Vasodilators like Nifedipine used for Raynaud’s

• PPI or H2 blockers are used for GERD

• Regular follow up with GI and Pulmonology is important

• Period echo to monitor for Pulmonary htn is important
Lupus and Myositis

- Myositis is inflammation of the muscles
- Patient with Lupus can have muscle pain but inflammation is not always common.
- Patient with myositis can weakness in extremities especially proximally
- CK (muscle break down enzymes) are elevated
- EMG/NCS is done to help with diagnosis
- Muscle biopsy can be done for further evaluation as well
Lupus and Myositis

- Steroids is the first line agent used in treatment of myositis
- Steroid sparing agents are used if disease is not responsive to steroids
  - Methotrexate
  - IVIG
  - Mycophenolate
  - Azathioprine
  - Biologics
- Exercise and PT is important part of the treatment regimen
MCTD

- Patients with MCTD usually can have symptoms of more than two CTD
- Majority of these patients have Anti U1RNP ab positivity
- Signs and sx of one or more CTD can be present at a given time
- Female to male ratio is 9:1
MCTD

• Patients can have multitude of signs and sx

• Commonly other serologies are negative with high titer positive RNP

• Clinical sx

• Joint pain and joint swelling
• Raynaud’s
• myalgias
• Esophagial hypomotility
• ILD is common in these patient
• Pulmonary Htn has been reported
• Renal involvement has been reported as well
MCTD

- Treatment tailored to specific clinical symptoms
- Anti Malarial (hydroxychloroquine) can be used in mild disease with joint pain
- NSAIDS can be used
- Steroids used in moderate disease
- Immune suppressants used for specific organ system involvement
QUESTIONS?