

# Lupus: 101

Lupus Education Day 2017

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MEDICINE OF THE HIGHEST ORDER



UNIVERSITY of  
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# Topics to cover

- What is Lupus?
- Who does lupus affect?
- Causes of lupus
- How is lupus diagnosed?
- Are there different types of lupus?
- How does lupus affect the body?
- What can I expect?
- Review treatments of lupus
- Lifestyle modification

# Systemic Lupus Erythematosus

- Lupus is a multisystem autoimmune disorder characterized by presence of autoantibodies often affecting multiple different organ systems in the human body
- Affects women > men with a reported 9:1 ratio
- Typical age of onset is 15-45 years but also occur in childhood or later in life
- The course of disease is variable with mild to severe forms of disease
- Characterized by flares and remissions

# Who gets lupus

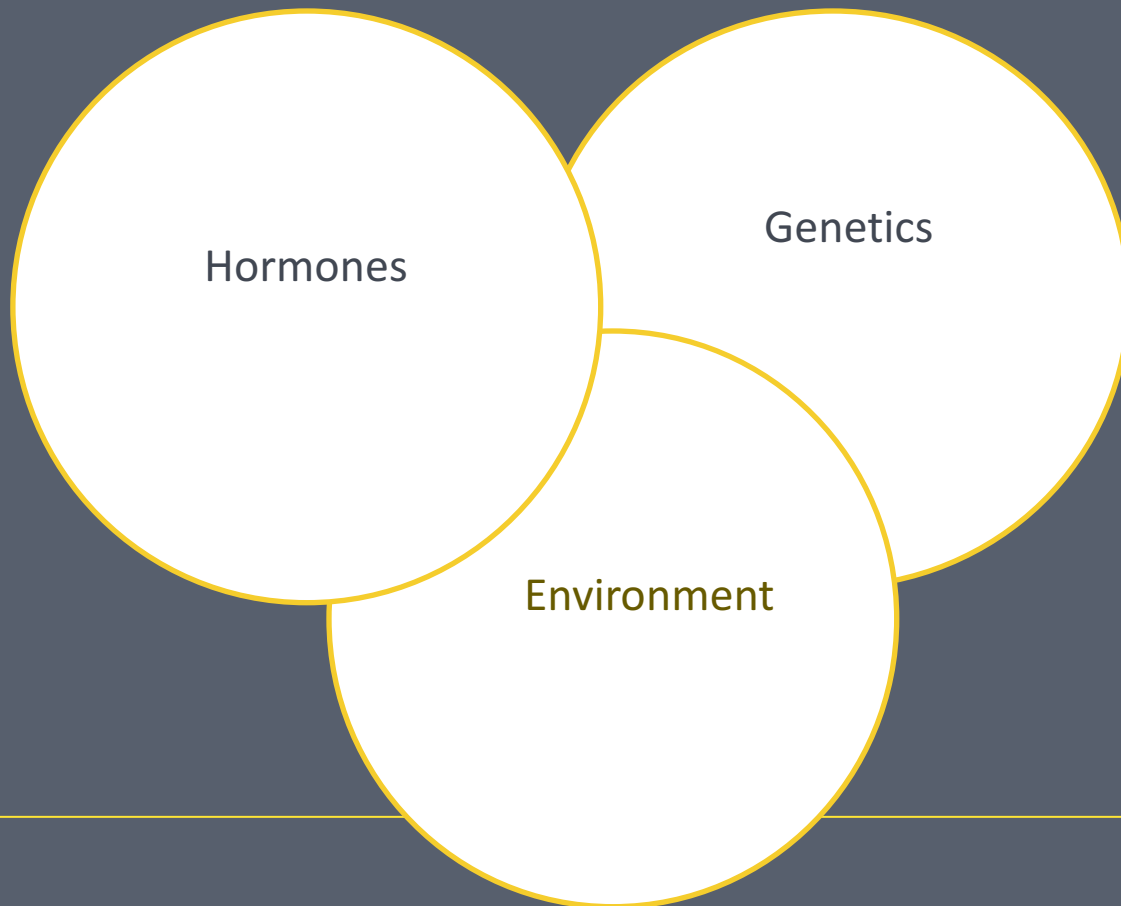
- In the US about 20-50 cases per 100 000 persons
- In US, the prevalence of SLE is higher among Asians, Hispanics and African Americans compared to caucasians (similar in Europe)
- Occurs more often in women-?hormonal effect, however men with lupus tend to have more severe disease
- 65% of cases present between ages 16-55

# Lupus history

- Lupus means wolf in latin –term was first used in 13<sup>th</sup> century to describe facial rash that resembles a wolf's bite
- It was not until 1872 when Kaposi first described lupus as a multisystem disorder affecting not only the skin but also associated with other symptoms
- Lupus was officially described as a systemic disease in 1904 by Osler
- Anti-nuclear antibody discovered in 1950s, with subsequent discovery of other antinuclear antibodies in the blood of patients with lupus leading to greater understanding of lupus

# What causes lupus

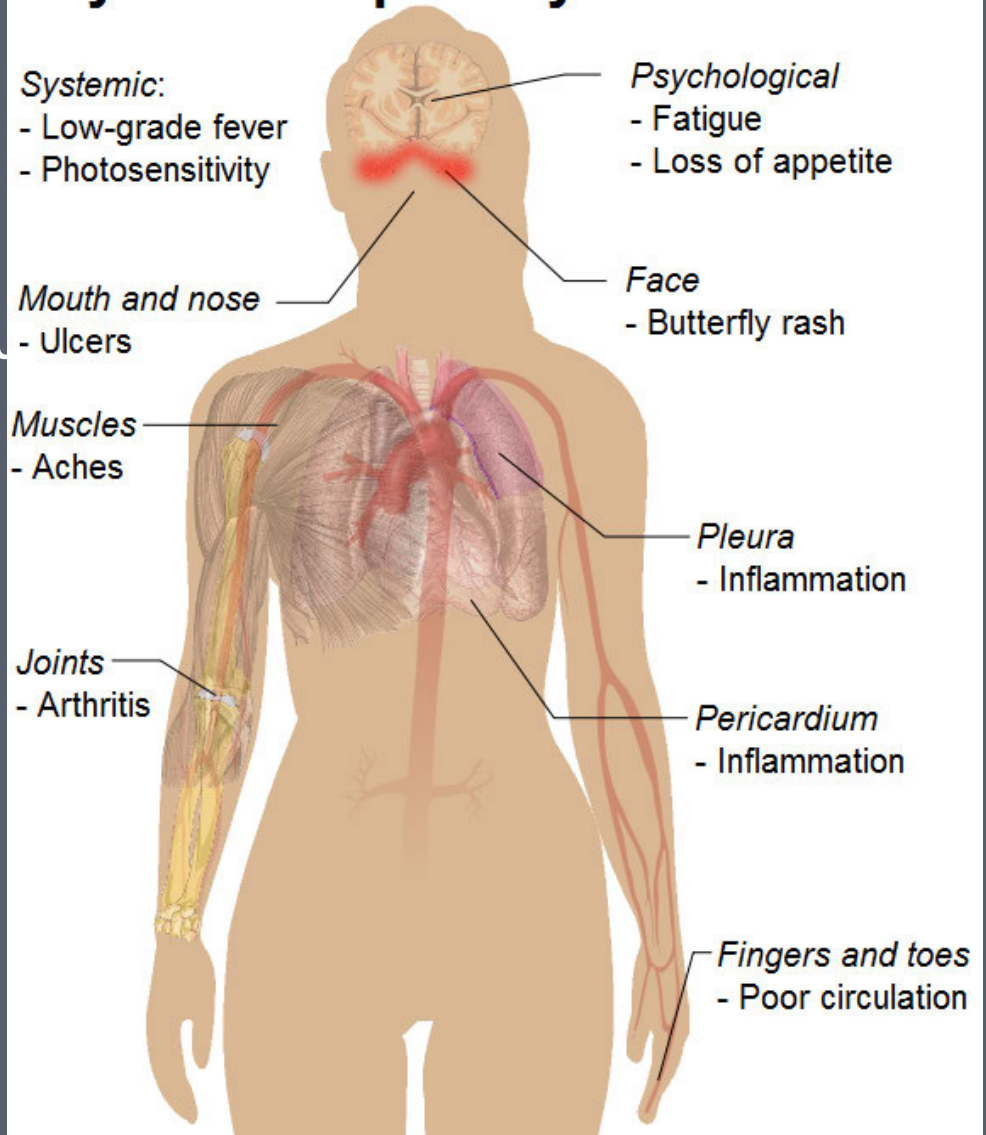
- No single cause has been identified



# Different types of lupus

- Systemic Lupus- Majority of cases
- Discoid Lupus –affects only skin
- Drug-induced lupus-Due to certain medications triggering lupus
- Neonatal lupus –Rare condition in which the mother's antibodies affect the fetus

## Most common symptoms of **Systemic lupus erythematosus**



- Tender swollen joints
- Fevers
- Raynauds (fingers turn purple)
- Excessive fatigue
- Rashes and sensitivity to sunlight
- Hair loss
- Sores in the mouth
- Pain with breathing
- Low blood counts
- Severe headaches
- Blood clots



# How is lupus diagnosed

- Criteria for Classification of SLE

## SLICC<sup>†</sup> Classification Criteria for Systemic Lupus Erythematosus

rheumTutor.com

Requirements:  $\geq 4$  criteria (at least 1 clinical and 1 laboratory criteria)  
OR biopsy-proven lupus nephritis with positive ANA or Anti-DNA

### Clinical Criteria

1. Acute Cutaneous Lupus\*
2. Chronic Cutaneous Lupus\*
3. Oral or nasal ulcers \*
4. Non-scarring alopecia
5. Arthritis \*
6. Serositis \*
7. Renal \*
8. Neurologic \*
9. Hemolytic anemia
10. Leukopenia \*
11. Thrombocytopenia ( $<100,000/\text{mm}^3$ )

### Immunologic Criteria

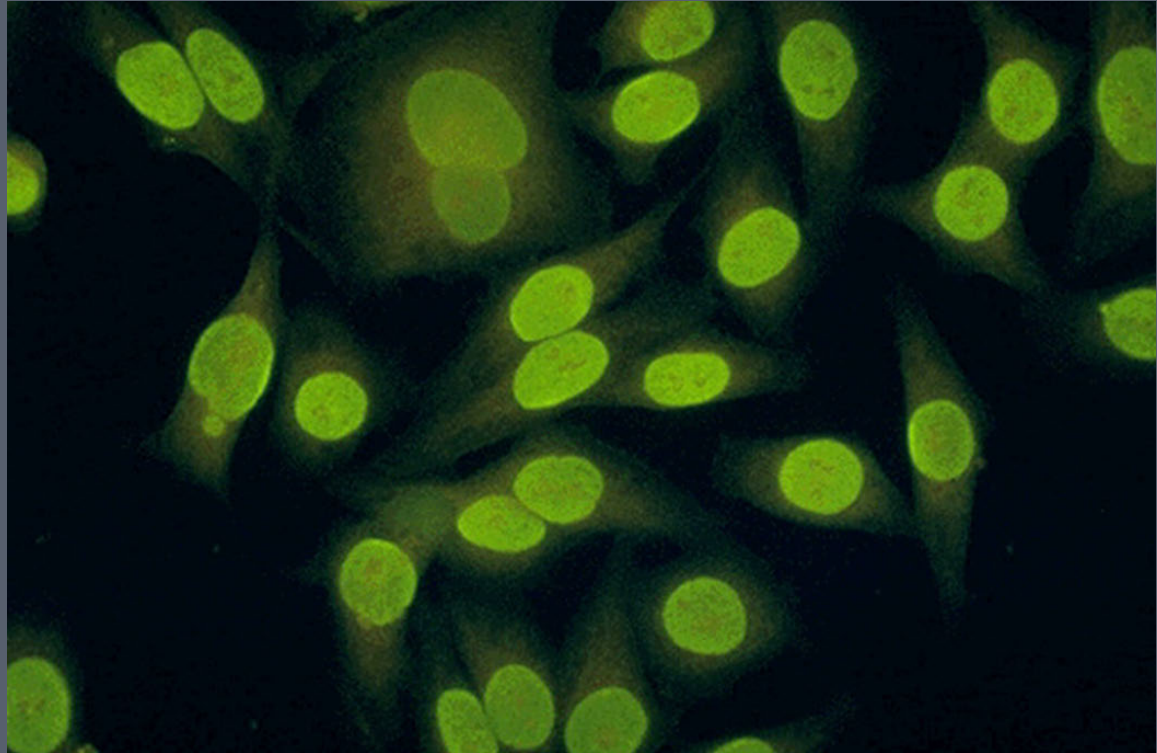
1. ANA
2. Anti-DNA
3. Anti-Sm
4. Antiphospholipid Ab \*
5. Low complement (C3, C4, CH50)
6. Direct Coombs' test (do not count in the presence of hemolytic anemia)

<sup>†</sup>SLICC: Systemic Lupus International Collaborating Clinics

\* See notes for criteria details

# Immunologic Testing

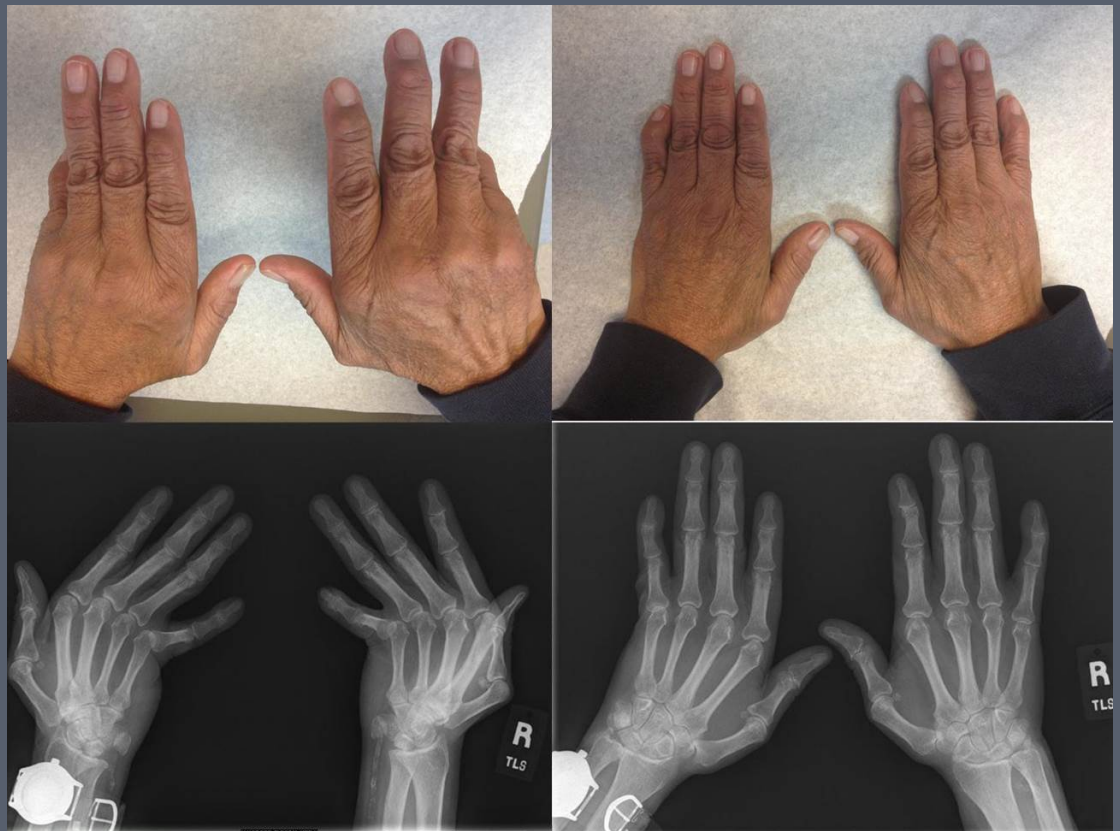
- Anti-nuclear antibody
- Seen in 99% of lupus
- Not very specific to lupus and can occur in many other disorders
- Also occurs in up to 15% of normal people without lupus



How lupus affects the body

# Arthritis

- Symmetric
- Associated with morning stiffness
- Affects small joints
- Similar to RA, but does not cause bone damage
- Most common symptom-affects 95% of patients with lupus



# Rashes

- Several types of rashes with SLE
- Sometimes skin biopsy is necessary
- Best to avoid sun exposure
- Sunscreen!



# Discoid Lupus (Chronic Cutaneous Lupus)



# Alopecia (hair loss)

- Very common symptom of lupus
- In lupus, alopecia is characterized by dry, brittle hair that breaks easily
- Hair loss is more common around the forehead
- Sometimes stress and medications also contribute to hair loss
- In most cases the hair grows back, but sometimes treatments from dermatologists can be helpful (topical steroids, Rogaine)

# Oral ulcers

- Occurs in about 25% of patients with lupus
- Typically small canker sores that occur in the mouth, but also in nose
- May be mildly painful
- Treatment with special mouthwash or steroid ointment can be helpful



# Raynauds

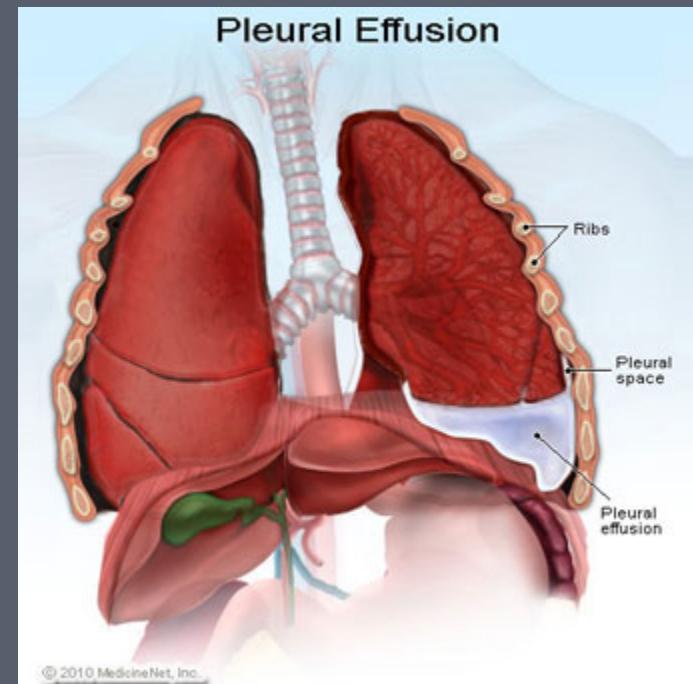


# Kidney Involvement

- Kidney: Most common internal organ affected by lupus
- Lupus can cause inflammation in the glomerulus (tuft of capillaries) that helps to filter the blood
- Common symptoms are subtle but may include swelling of the lgs
- Testing includes blood and urine tests

# Serositis (inflammation of lining of heart and/or lungs)

- Pericarditis: Occurs in about 25% of patients with lupus. Due to inflammation around the lining of the heart. Symptoms include chest pain when breathing
- Pleurisy: Inflammation of lining of the lung



# Overlapping disorders

- Sjogren's Syndrome
- Scleroderma
- Myositis
- Antiphospholipid antibody syndrome
- Autoimmune thyroid disease

# Neonatal Lupus



- Can also occur in babies of women without lupus

# Lupus and Pregnancy

- Contrary to earlier beliefs pregnancy is not contraindicated in patients with lupus
- For most women with lupus a successful pregnancy is possible
- Discuss plans for pregnancy with your rheumatologist and determine when best time for pregnancy may be
- Pregnancy should be times when lupus is quiet

# How is lupus treated

- Lupus symptoms vary from one person to another
- Best approach is to work with your rheumatologist and work together to tailor treatment to your specific condition
- Become friends with your rheumatologist: other specialists may be consulted if lupus is affecting a specific organ (ie-dermatologist for skin symptoms or kidney doctor for kidney disease)

# Goals of treatment

- Reduce inflammation and damage caused by lupus
- Suppress overactive immune system
- Prevent flares and treat them when they occur
- Control symptoms such as joint pain and rashes



# Medications used to treat lupus

- Multiple Medications are often used
- It can take several months before your health care team finds the right combination of medicines to keep your lupus quiet
- Many categories of drugs:
  - Steroids
  - Antimalarials such as hydroxychloroquine (Plaquenil)
  - Benlysta (a monoclonal antibody)
  - Aspirin
- “Off Label Drugs”: other immunosuppressive such as cellcept or azathioprine, rituxan

# Handling the unpredictability of lupus

- Lupus is a disease of flare and remission-it may be quiet one day and quiet the next
- Flares typically last for more than a day and sometimes may require a change in medication to suppress the symptoms
- Due to the unpredictable nature of lupus you may need to adjust your responsibilities and priorities at times

# In summary

- Lupus is a multisystem autoimmune disorder with many different manifestations
- Lupus can be mild and is treatable
- Lupus affects each person differently
- While lupus can affect any part of the body in most people it only affects a few organs (most common skin and joints)