

UNDERSTANDING SYSTEMIC LUPUS ERYTHEMATOSUS

Stacy Kennedy, M.D.,M.B.A.

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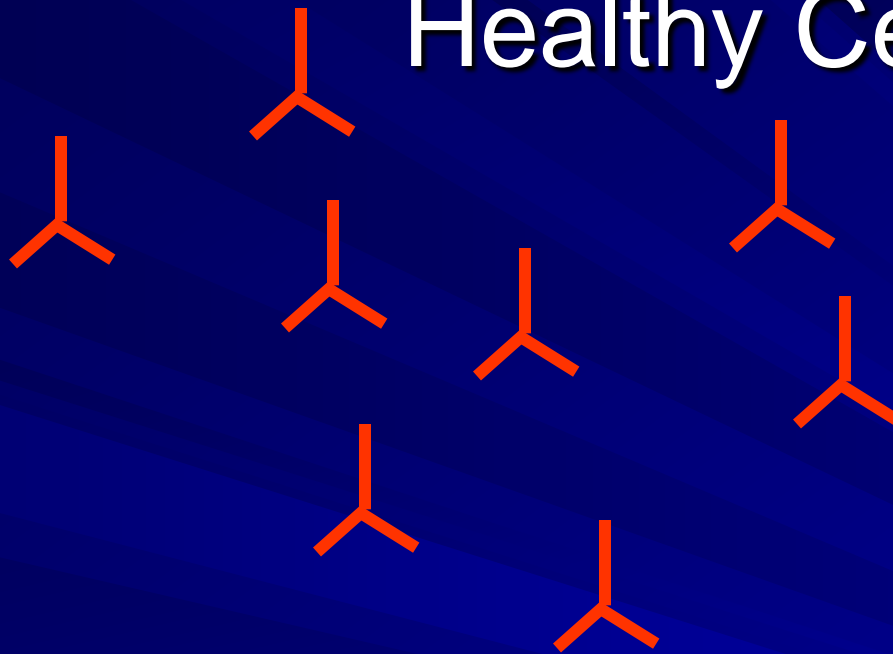
Agenda

- What is lupus
- Who is affected
- Causes of lupus
- Symptoms and organ involvement
- Diagnosis
- Treatment
- Pregnancy and lupus
- Resources
- QUESTIONS

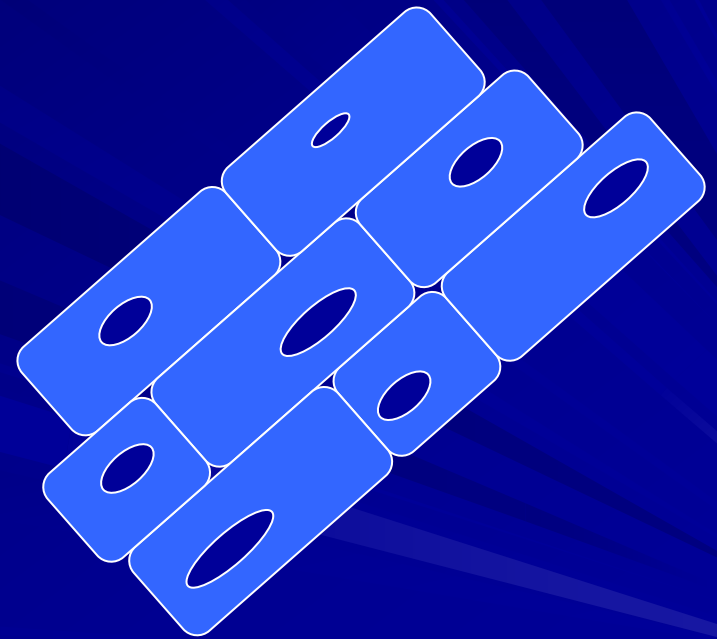
Definition

- Chronic autoimmune disease
- The body's immune system starts attacking itself
- Can affect most organs and tissues in the body
 - Brain, lungs, heart, joints, skin, blood, kidneys

Immune System Attacking the Healthy Cells



Antibodies



Your Tissue Cells

Autoimmunity – the body attacking its own tissues

The Types of Lupus

- Systemic lupus erythematosus (SLE or lupus)
 - Any organ
- Cutaneous/discoid/skin lupus
 - Skin only
- Drug-induced
 - Medications cause
- Mixed connective tissue disease
 - Associated with other autoimmune diseases
- Neonatal lupus
 - Affect infants of women with lupus



Who Treats Lupus?



- Systemic Lupus Erythematosus – Rheumatologist
- Cutaneous lupus – Dermatologist
- Other specialists
 - Nephrologist – kidney disease
 - Cardiologist – heart problems
 - Neurologist – nervous system problems
 - Perinatologist – high risk pregnancies

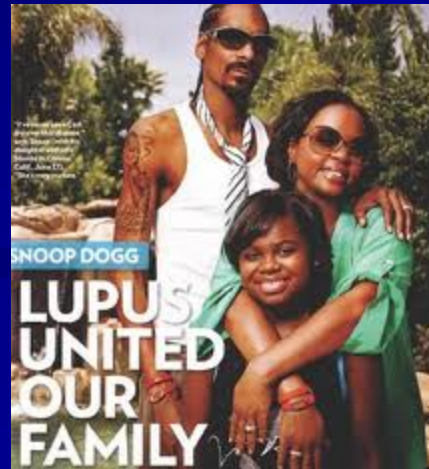


Facts About Lupus



- 1.5 million people have lupus
- More than 16,000 new cases reported in the US each year
- Women in childbearing years
 - 9 of 10 lupus patients are women
- People of all races and ethnic groups can develop lupus
- Women of color 2 -3 times more likely

Whose affected?



Causes



- Not known
- Possibly hormones, genetics and environment
- Sex hormone estrogen
 - Women produce more than men
- Genetics
 - Lupus or other autoimmune diseases like rheumatoid arthritis in the family
 - Greater in ethnic groups – African, Asian, Hispanic/Latino, Native American or Pacific Island descent



Causes cont.



■ Environment

- Genes increase the chance of lupus, but some environmental trigger most likely is needed
 - Ultraviolet or fluorescent light
 - Sulfa drugs and tetracycline (more sensitive to the sun)
 - Infection, colds, exhaustion, injury, emotional stress, physical stress (accident, pregnancy, surgery)

Causes cont.

Not contagious!!!!!!

Symptoms

- Fatigue
- Painful or swollen joints
- Anemia
- Fever
- Headaches
- Swelling in the feet, legs, hands and/or around the eyes
- Pain in chest on deep breathing (pleurisy)
- Muscle pain
- Butterfly-shaped rash across the cheeks and nose
- Hair loss
- Sensitivity to the sun
- Blood clotting problems
- Ulcers in the mouth/nose
- Fingers turning red, white and blue (Raynaud's phenomenon)

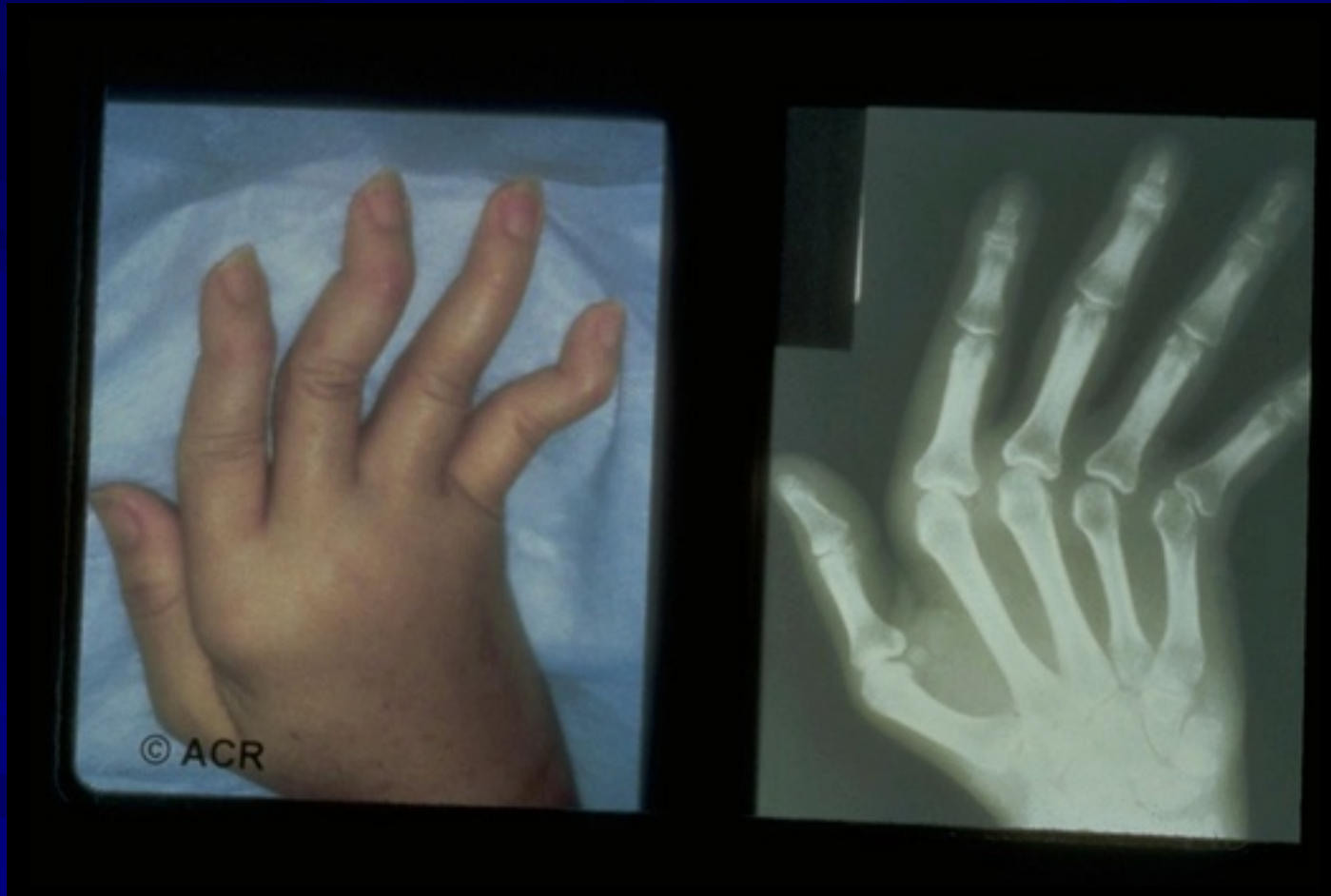
Frequency of Symptoms

Symptoms	Percent at Onset	Percent at Anytime
Fatigue	50	74-100
Fever	36	40-80+
Joints	62-67	83-95
Skin	73	80-91
Kidneys	16-38	34-73
Heart	15	20-46
Lungs	2-12	24-98
Gastrointestinal	18	38-44
Brain	12-21	25-75

Arthritis/Joint pain

- Joint symptoms in over 90% of patients at some time
- Can move from joint to joint
- Hands are often involved
- Rarely deforming

Arthritis/Joint pain



Jaccoud's

Skin Manifestations

- Butterfly rash
- Discoid lesions
- Hair loss (alopecia)
- Oral and nasal ulcers

Skin Manifestations: Butterfly rash

- Redness over the cheeks and nose after sun exposure



Skin Manifestations: Discoid lesions

- More inflammation and a tendency to scar



Skin Manifestations: Hair loss (Alopecia)

- Hair loss is common, baldness is not



Skin Manifestations: Oral/nasal ulcers

- Usually painless compared to herpes virus lesions



Raynaud's Phenomenon

- Cold-induced color changes of the fingers or toes



Kidney Involvement

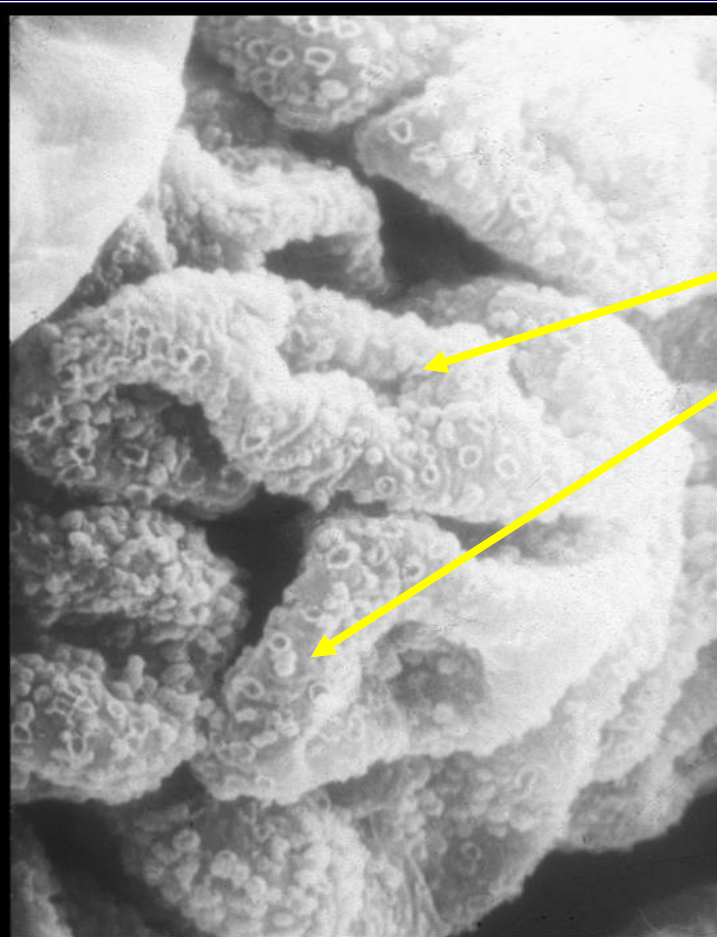
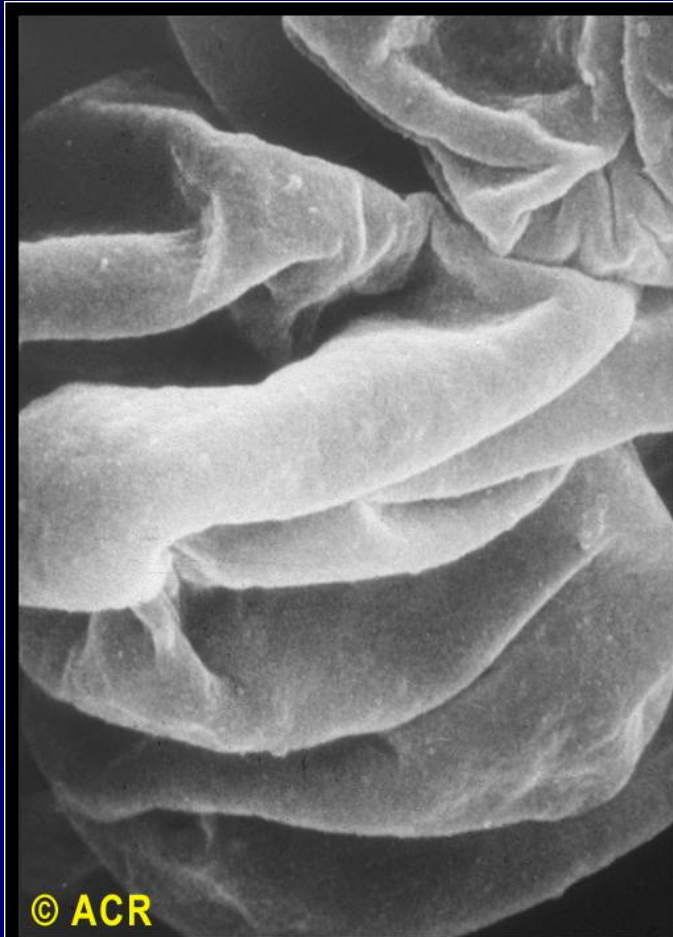


- Lupus nephritis - Inflammation in the glomerulus (filters)
 - Difficulty filtering waste from the bloodstream
- Nephrotic syndrome
 - Kidneys may leak protein from the blood into the urine
 - Water retention and swelling in the lower legs and feet
 - Without treatment the kidneys can be permanently scarred and dialysis may be required
- Treatments exist to prevent or minimize the damage to the kidney

Kidney Involvement

Normal

SLE



Immune complexes

Digestive Tract

- Medications like prednisone and NSAIDs (Ibuprofen) can cause stomach upset and stomach ulcers
- Lupus can cause inflammation of the pancreas (pancreatitis), the lining of the abdomen (peritonitis) or the large intestine (colitis)
 - Severe abdominal pain, nausea, and vomiting

Digestive Tract

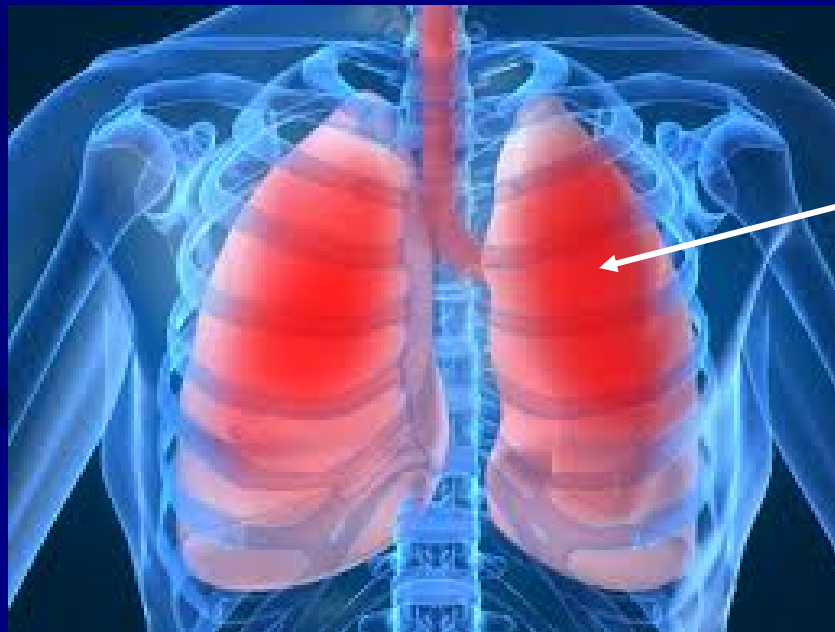


Halos – inflammation of the intestines

Lungs

■ Pleurisy

- Chest pain when taking a deep breath
- Due to inflammation of the lining covering the lungs and inside of the chest

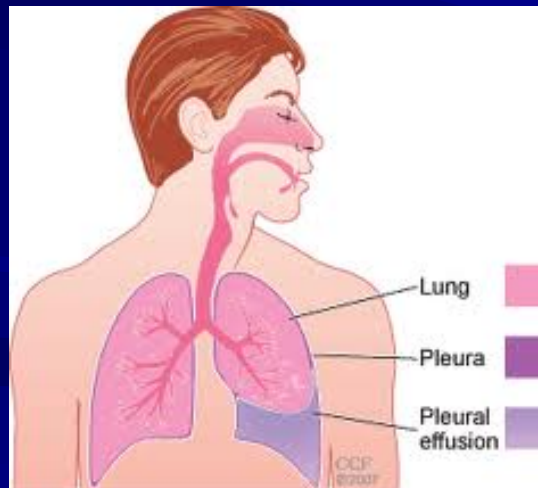


Inflammation

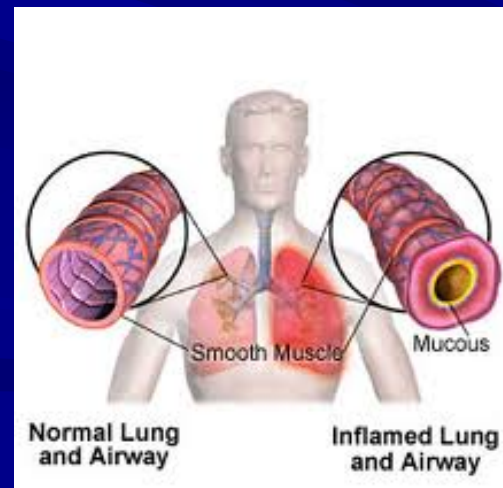
Lungs

■ Shortness of breath

- Pleural effusion – fluid in the space around the lungs preventing the lungs from expanding
- Pneumonitis – inflammation of the air sacs of the lung
- Interstitial lung disease – scarring or dysfunction of the tissues between the air sacs



Pleural effusion



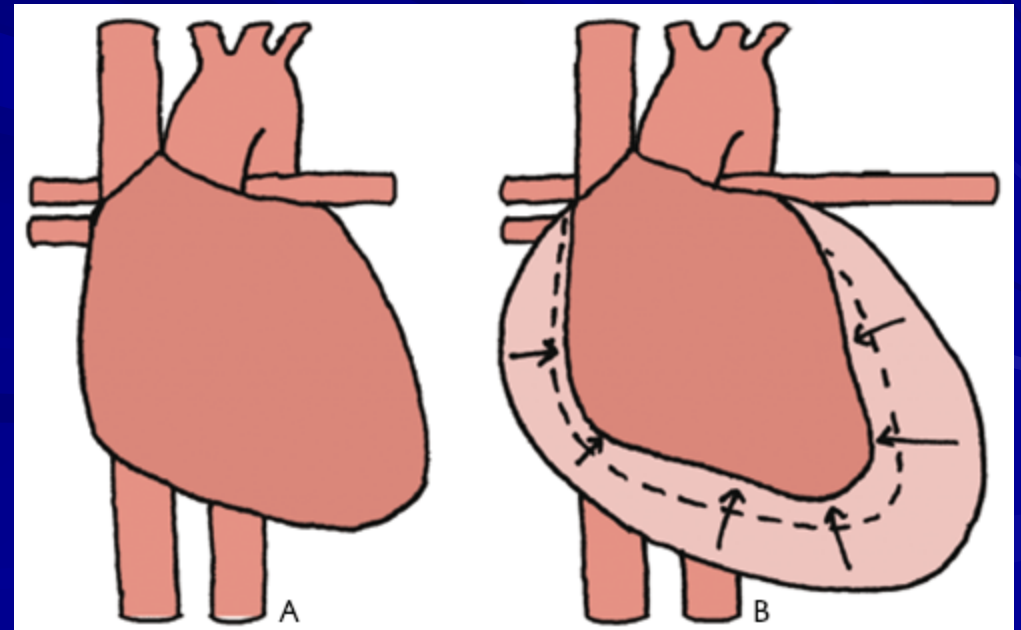
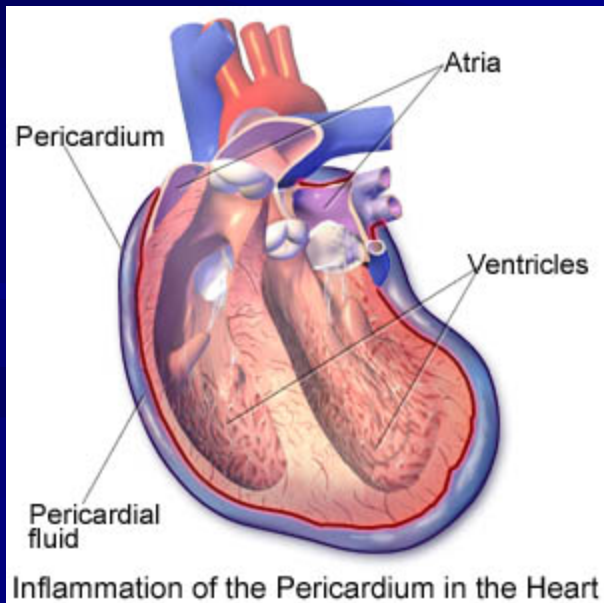
Pneumonitis



Interstitial lung disease

Heart

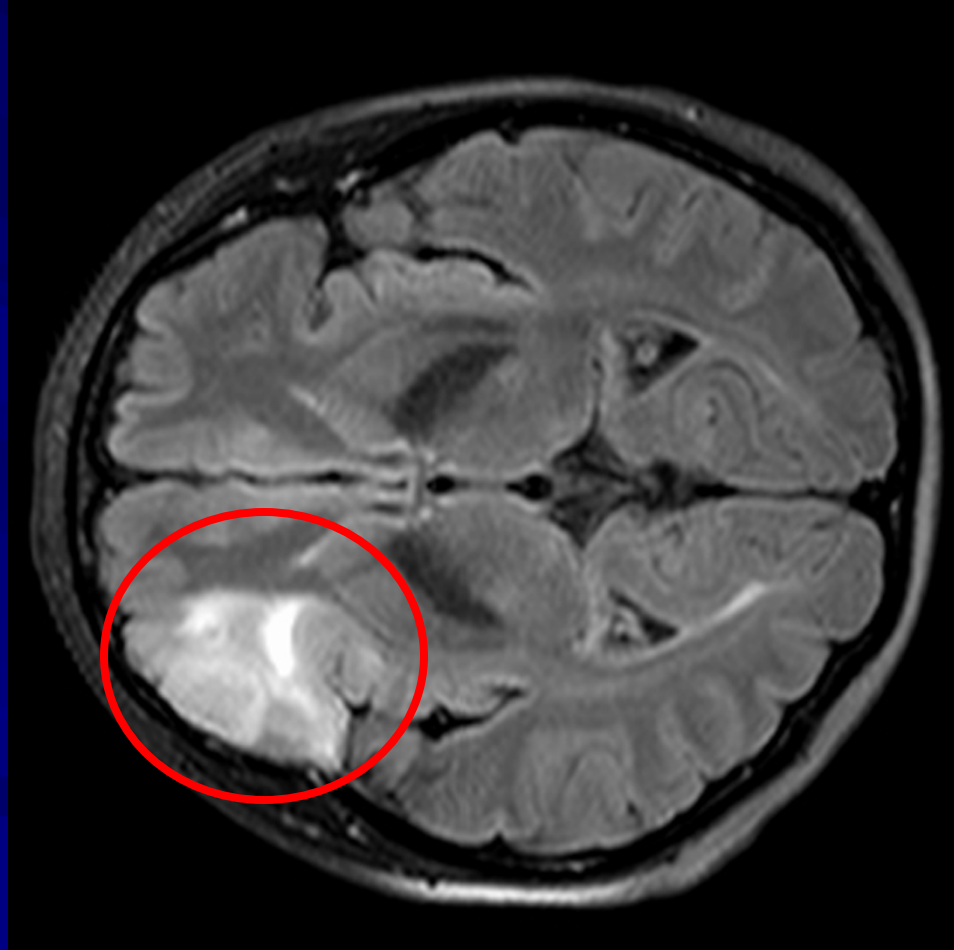
- Shortness of breath due to heart valve disease
- Chest pain due to inflammation around the heart – pericarditis
- Chest pain with exercise
 - Increased risk for heart disease like a heart attack



Nervous System

- Can be affected by lupus and the medications to treat lupus
 - Difficulty concentrating
 - Memory loss or confusion
 - Meningitis
 - Seizures
 - Headaches
 - Peripheral neuropathy – pain in the hands or feet
 - Depression/Anxiety
 - Weakness or numbness

Nervous system



Blood tests



- Anemia (low red blood cells)
 - Mainly mild due to chronic disease
 - Rarely hemolytic – can be severe
- Leukopenia (low white blood cells)
- Thrombocytopenia (low platelets)
- Increased clotting – DVTs, PEs
 - More in patients with antiphospholipid syndrome or kidney disease

Cardiovascular Disease

- Increased risk for heart attacks and strokes at a younger age
- Know the signs and symptoms
- Seek immediate medical attention

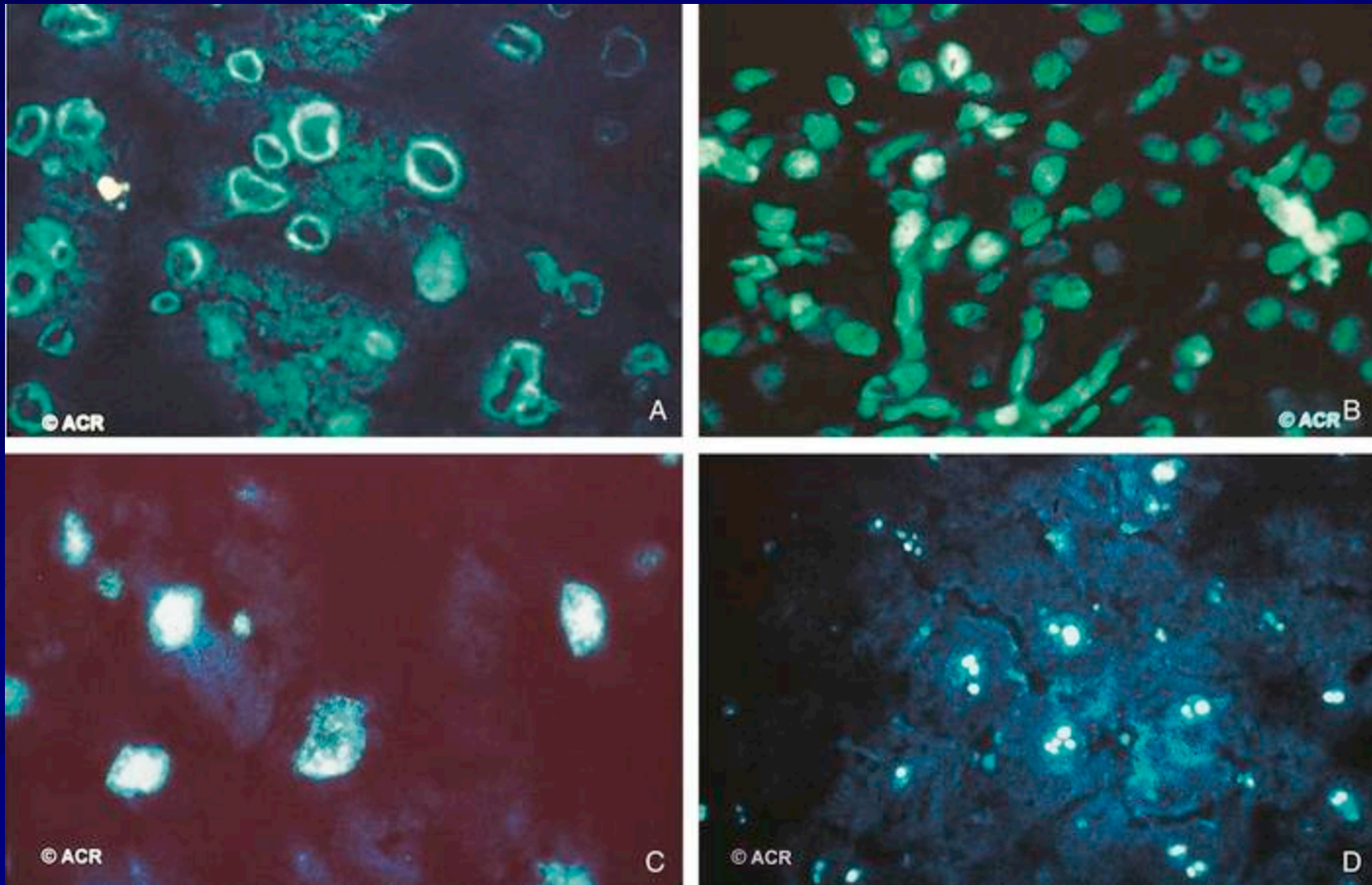


Diagnosis

- No single test
- Health history and current symptoms
- Family history
- What the doctor sees on exam
- Lab tests



Antinuclear Antibody (ANA)



Diagnosis

11 Common Criteria

- Malar rash
- Discoid rash
- Photosensitivity
- Oral ulcers
- Arthritis
- Serositis
- Renal disorder
- Neurologic disorder
- Hematologic disorder
- Immunologic disorder
- Antinuclear antibody

Treatment Strategy

- Therapy is tailored for symptomatic relief and slowing progression of organ involvement
- Individual treatment plans are implemented for each patient and may alter during the course of the disease
- Prognosis has improved with earlier detection of disease and aggressive treatment of renal disease



Medical Treatments

- Goal - Suppress the immune system and reduce inflammation
- Nonsteroidal anti-inflammatory drugs (NSAIDs)
 - Ibuprofen
- Glucocorticoids
 - Prednisone
- Antimalarials
 - Hydroxychloroquine
- Immunosuppressives
 - Belimumab, azathioprine, mycophenolate, cyclophosphamide
- Anticoagulants

New Therapies

- Benlysta (belimumab)- first FDA approved drug for SLE
- IV every 4 weeks
- Used for almost all manifestations except CNS and severe renal disease



Medication Treatments

Don't stop your medications
without talking to your doctor!!!

Non-Medical Treatments



- Educate yourself on lupus
- Diet and nutrition
 - No special diet
 - Well-balanced - low in fat, high in fruits, vegetables and grains
- Sun protection
- Exercise
- Rest
- Stop smoking
- Medication precautions – herbals, supplements
- Support system



Pregnancy and Lupus

- Plan with your physician
 - You should not get pregnant on certain medications because of the increased risk for fetal abnormalities or miscarriage
 - Off some medications at least 3 months so they can clear your system
 - Certain medications cannot be taken when breastfeeding
- Avoid becoming pregnant during lupus flares
 - High risk of miscarriage
- Chances of an uncomplicated pregnancy and healthy newborn are improved by waiting until lupus is controlled for 6 months

Pregnancy and Lupus



Most infants are healthy



Resources for Lupus Patients

- www.lupuslinks.org (LFA Piedmont Chapter)
- www.lupus.org (LFA National Office)
- www.arthritis.org
- www.LupusResearchInstitute.org
- www.niams.nih.gov/Health_Info/Lupus

Your local LFA Chapter:

Lupus Foundation of America, Piedmont Chapter
4530 Park Road, Suite 302, Charlotte, NC 28209
info@lupuslinks.org • (877) 849-8271

QUESTIONS?