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

Autoimmunity – the body attacking its own tissues

Your Tissue Cells
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

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

Von Feldt JM, Postgrad Med 1995; 97:79
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

© ACR
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
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
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 first!!!
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?