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# Pregnancy Care ECHO:

## *Rheumatic diseases in pregnancy*

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# OUTLINE

## CLINICAL CASE—SF

- 25y G2P1 @24w presenting for anatomy US found to have fetal heart rate of 50 BPM
- PMH: Sjogren syndrome, Raynaud's, ?SLE
- PSH: None
- Meds: On hydroxychloroquine in last pregnancy, discontinued by rheumatology

SIEMENS

60

\*C

Def

TIS: 0

TIB: 1

MI: 1

13f

2D- 100

T

H6.00 M

2dB/DR

SC

DTCE

MapC/S

M- 100

T

H6.00M

0dB DR

MapD/

11/24/20

Age 24w

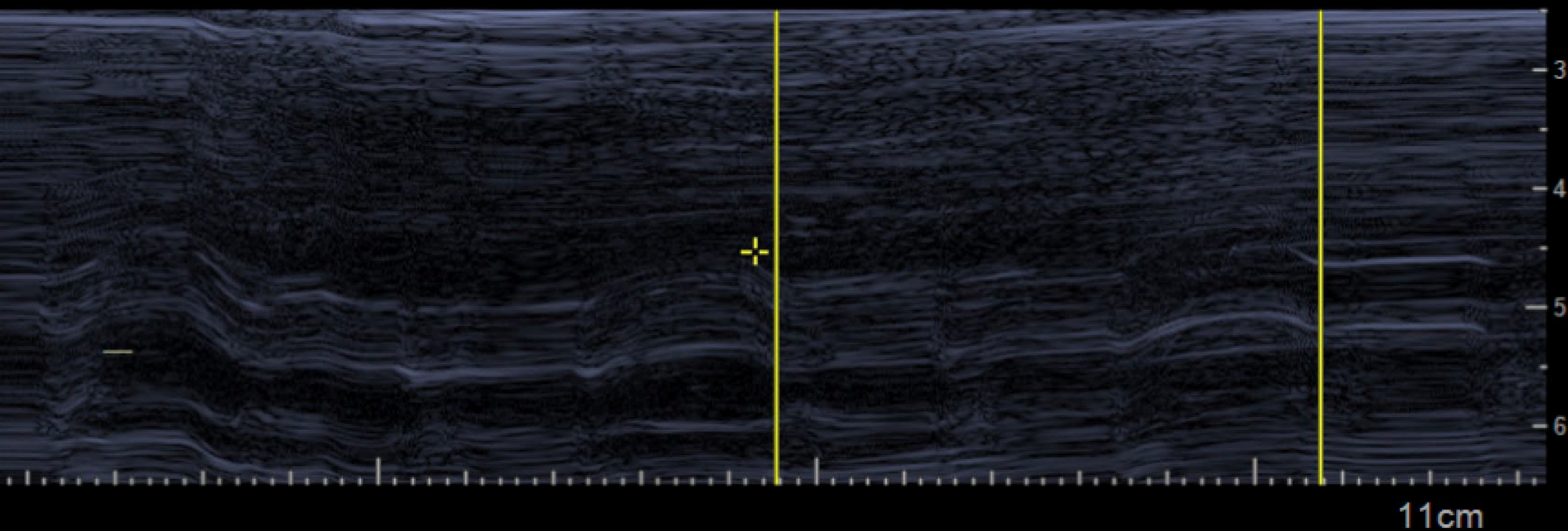
8/31/20

848g±12

1lb14oz±4

85 Hadlo

Fetal HR=48 bpm  
T=1.242 sec



# SYSTEMIC LUPUS ERYTHEMATOSUS

- Autoimmune disease; multiorgan involvement
- Loss of immune tolerance and persistent autoantibodies
- Variable presentation involving:
  - Joints, skin, kidneys, serous membranes, hematologic system, nervous system
- Pregnancy complications:
  - Lupus flares with organ dysfunction or failure
  - Neonatal lupus; CHB

# SYSTEMIC LUPUS ERYTHEMATOSUS

## Diagnosis:

- SLICC criteria ( $\geq 4/17$  criteria):
  - 1 clinical, 1 immunologic

| Clinical Criteria                           | Immunologic Criteria |
|---|----------------------|
| Acute cutaneous lupus (e.g. Malar Rash)     | ANA                  |
| Chronic cutaneous lupus (e.g. Discoid Rash) | Anti-dsDNA           |
| Nonscarring alopecia                        | Anti-Sm              |
| Oral & nasal ulcers                         | Low complement       |
| Joint disease                               | Direct coombs        |
| Serositis                                   |                      |
| Renal                                       |                      |
| Neurologic                                  |                      |
| Hemolytic anemia                            |                      |
| Leukopenia or lymphopenia                   |                      |
| Thrombocytopenia                            |                      |

# PRECONCEPTION ASSESSMENT

- Antiphospholipid antibodies (LAC, aCL  $\alpha\beta$ 2GP1)
- Anti-SS-A, anti-SS-B
- Baseline CBC & renal function panel

# PRECONCEPTION CONSIDERATIONS

Discourage pregnancy if:

- Cardiomyopathy or valvular disease
- PAH
- Interstitial lung disease
- Serious neurologic manifestations
- Moderate-to-severe renal insufficiency



# PREGNANCY TIMING

- Conception during period of inactive disease
- SLE activity within 6 months increases pregnancy risk
  - Four-fold increased risk of pregnancy loss
  - Four-fold increased risk of flare (8% vs 53%)\*

\***ME Clowse**: Lupus activity in pregnancy. *Rheum Dis Clin N Am.* 33:237-252 2007

# NEONATAL LUPUS & CONGENITAL HEART BLOCK

- 33% of patients with SLE have anti-SS-A (Ro) and/or anti-SS-B (La)
  - 1-2% risk of CHB
  - Recurrence risk: 15-20%
  - Individualized plans for women with h/o pregnancy affected by CHB

# PREGNANCY MANAGEMENT

- Co-management with rheumatology & MFM
- Serial growth US at 18w
- Home BP monitoring at 20w
- Antenatal testing at 32w

# ANTIPHOSPHOLIPID SYNDROME

- Autoimmune disease; antibodies against cell-membrane bound glycoproteins
- Characterized by thrombosis and/or adverse pregnancy outcomes
- APS-associated pregnancy complications, related to abnormal placental function
  - FGR
  - PreE/Placental Insufficiency
  - Fetal Death

# ANTIPHOSPHOLIPID SYNDROME

## Diagnosis:

- Sapporo criteria ( $\geq 2/5$  criteria):
  - 1 clinical, 1 immunologic

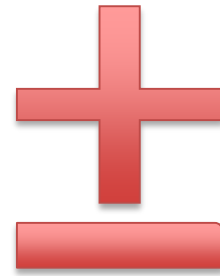
| Clinical Criteria   | Immunologic Criteria*                                     |
|---|---|
| 1. Prior vascular thrombosis  | LAC present   |
| 2. Pregnancy morbidity  | aCL IgG or IgM $\geq 40$ GPL or MPL                       |
| <ul style="list-style-type: none"><li>• 1+ fetal deaths <math>\geq 10</math>w (normal morphology)</li></ul>   | a $\beta$ 2GP1 IgG or IgM $\geq 99$ %ile                  |
| <ul style="list-style-type: none"><li>• 1+ PTB &lt;34w from preeclampsia or placental insufficiency</li></ul> |   |
| <ul style="list-style-type: none"><li>• 3+ unexplained, <i>consecutive</i> SABs &lt;10w</li></ul>             |   |
|   | *Must be present on 2 separate occasions, >12 weeks apart |

# PRECONCEPTION ASSESSMENT

- Delivery of viable infant >70% with treatment
- LAC & "triple positivity" – best predictors of pregnancy morbidity
  - Greater than 40% will have fetal loss or PTD for PreE or placental insufficiency
- Baseline CBC & renal function panel
- Start ASA 81mg preconceptionally

## TREATMENT

ASA 81mg



Heparin Product

| Clinical Manifestation   | Treatment Options |
|--------------------------|-------------------|
| History of thrombosis    |                   |
| No history of thrombosis |                   |



# PREGNANCY MANAGEMENT

- Co-management with MFM
- Serial growth US
- Antenatal testing at 32w

# RHEUMATOID ARTHRITIS

- Inflammatory disease; predominant chronic symmetrical arthritis
- Extraarticular manifestations: serositis, vasculitis, subcutaneous nodules
- Pregnancy Complications:
  - Increased risk of PTB, ?SGA, ?preeclampsia
  - Near universal postpartum flare

# RHEUMATOID ARTHRITIS

## Diagnosis:

- ACR/EULAR Criteria ( $\geq 6$  points/10):
  - Must include synovitis in 1 joint

1. Number and site of involved joints

2. Serological abnormality (RF or ACPA)

3. Elevated acute phase response

4. Symptom duration

# PRECONCEPTION ASSESSMENT

- Stabilize disease activity
- Coordinate medication management with rheumatology

# PREGNANCY MANAGEMENT

- Routine PNC for women with inactive disease
- Active disease: comanage
- Monitor for hypertensive diseases
- Serial US q4-8w after anatomy US
- Uncertain benefit of antenatal testing

# SJÖGREN SYNDROME

- Keratoconjunctivitis, sicca, & arthritis. Often secondary to SLE or RA
- Pregnancy Complications:
  - Neonatal lupus (60-80% of patients with anti-SS-A or anti-SS-B)
  - Metanalysis (1586 pregnancies): higher rate of neonatal death (OR 1.77, 95%CI 1.28-1.46)

# ANTI-RHEUMATIC MEDICATIONS

## Acceptable risk

Azathioprine  
Cyclosporine A  
Glucocorticoids  
Hydroxychloroquine  
Aspirin  
Sulfasalazine

## Uncertain or increased risk

Cyclophosphamide  
TNF- $\alpha$  inhibitors  
Biologic agents

## Contraindicated

Leflunomide  
Methotrexate  
Mycophenolate

# CONCLUSIONS

- Multiple related pregnancy complications
- Most anti-rheumatic medications are safely continued in pregnancy
- Teratogenicity of some meds should be stressed to patients
- Co-management with rheumatology & MFM





# QUESTIONS?