

Systemic lupus erythematosus & APS

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IMMUNE SYSTEM CHANGES IN PREGNANCY

- ▶ Relatively suppressed cell-mediated immunity (T&B-CELL)(RA ,asthma)
- ▶ Enhance humoral immunity (ANTIBODY PRODUCTION) (EX.:SLE)



DRUGS USED FOR AUTOIMMUNE CONDITION

Safe to continue or start in pregnancy	Discontinue or avoid in pregnancy
Paracetamol	NSAID (not teratogenic but may cause premature closure of DA , renal problems)
Hydroxychloroquine	Cyclophosphamide
Sulfasalazine (dihydrofolate reductase inhibitor so may increase risk of NTD, ORAL CLEFT , CVS DEFECT) FOLIC ACID 5MG/DAY	Methotrexate
Corticosteroid(may increase risk of oral clefting ,infection &GDM)	Mycophenolate mofetil
azathioprine	Chlorambucil
	penicillamine



Systemic lupus erythematosus

▶ Is a relapsing and remitting multisystem connective tissue disorder that predominantly affect women of child bearing age .

▶ Clinical feature :

joint involvement –arthritis (symmetrical , non-erosive)

Skin :Malar rash , photosensitivity , Raynaud phenomenon)

Haematological :haemolytic anemia , thrombocytopenia , leucopenia

Renal involvement : lupus nephritis (HTN , protein)

Neurological involvement



Systemic lupus erythematosus

- ▶ Autoantibodies include :
 - Antinuclear antibody (ANA)
 - antibodies to double stranded DNA
 - extractable nuclear antigen:**
 - ***anti-Ro antibodies**
 - ***anti-La antibodies**
 - anti-cardiolipin antibodies .



Effect of pregnancy on SLE

- ▶ Pregnancy is associated with an **increase risk of SLE flare (enhanced humoral immunity)**
- ▶ Flares may be harder to diagnose in pregnancy because many feature such as fatigue , erythema , anemia are common in both .



Effect of SLE on pregnancy outcome

- ▶ Miscarriage
- ▶ Pre-eclampsia
- ▶ IUGR&fetal death
- ▶ Pre-term delivery
- ▶ Cutaneous neonatal lupus (transient , 5% of infant born to anti-Ro &la positive mothers)
- ▶ Congenital heart block (permanent , occur in 2% of infant born to anti-Ro &la positive mothers) , perinatal mortality rate is 19% .



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- ▶ Complication during pregnancy decreased if :
 - SLE remission around the time of conception (3-6 months)
 - there is no renal disease .

- ▶ So, in women who have no renal involvement and Ro/La negative , there is no adverse effect of their disease on pregnancy .



Management

- ▶ This should begin with pre-pregnancy counselling (risks , medications, ...)
- ▶ Women should be advised to conceive during remission .
- ▶ Re-assess her medication
- ▶ During pregnancy , SLE flares are treated with new or increased doses of steroid .
- ▶ Serial growth scan and tests for fetal wellbeing as indicated .



Antiphospholipid syndrome

- ▶ Is a disorder of immune system that causes an increase risk of blood clots .
- ▶ Antiphospholipid antibodies (lupus anti-coagulant , anticardiolipin or anti-b2 glycoprotein antibodies) are formed against vascular endothelium and platelets , eventually leading to vascular constriction and thrombosis .
- ▶ Thrombus may lead to placental infarction and fetal loss .



Criteria for DIAGNOSIS

- ▶ At least **one clinical** and **one laboratory** :
- ▶ **Clinical criteria** :
 - **one or more** episodes of arterial , venouse or small vessel thrombosis
 - **one or more** unexplained pregnancy loss of morphologically normal fetus of **greater than or equal to 10 weeks**
 - **one or more premature birth** of morphologically normal fetus at **less than or equal to 34 weeks GA** due to pregnancy-induced HTN or placental insufficiency .
 - **three or more consecutive miscarriages before 10 weeks** of gestation excluding anatomic , hormonal , genetic factor .



syndrome Criteria for Antiphospholipid

▶ Laboratory criteria : **at least one**

-**two positive** titer of **moderate to high** dilution **at least 12 weeks** apart of anti-cardiolipin or anti-β₂ glycoprotein IgG OR IgM antibodies

- lupus anticoagulant (Russel viper venom test) on two occasions at least 12 weeks apart .

AGAIN ! You need at least one clinical and one laboratory to diagnose APS .



TREATMENT OF Antiphospholipid syndrome

APL ANTIBODIES , no thrombosis ,no pregnancy loss	Aspirin 75 mg or nothing
Previous thrombosis	LMWH and aspirin
Previous recurrent (more than 3) miscarriages (less than 10 weeks)	Aspirin and LMWH
FETAL LOSS or severe pre-eclampsia	Aspirin and LMWH



THANK YOU

