ARTHRITIS AND RASH

DDX of Syndrome came w : joint pain swelling limitation of movment rash.

1) allergy .

2) infection (if it for low duration ,acute) :viral ,FLU , EBV ,CMV.

Hepatitis , enterovirus , herpes ,parovirus(it come w arthritis and rash so diff. about RA by duration this infection ended by weeks) .

3) SLE .

PICTURES :

1)Psoriatic plaque ,onycholysis, DIP arthritis (diag. psoriatic arthritis).

If this patient came w .manifestation of -psoriatic + septic + reactive

Make a hint for HIV

2)rash if it w arthritis fever leukocytosis Liver enzyme elevation

DDX (JIA, CMV , viral hepatitis).

-JIA (juvenile idiopathic arthritis) came as Rheumatoid or systemic or as

- stills disease : fever+ rash (come and go together) + arthritis ,hepatosplenomegaly , leukocytosis.

Marker to diagnosis :ferritin very high .

3) erythema chronicum migrans ECM or bulls eye (lyme dis.) 

4) ECG – first degree AVblock – Mobitz I 2 degree AV block -mobitz II

- 3 degree AV block (pt came w syncope ,bradycardia).

5) erythema marginatum (reproduce by hot bath)

6) erythema nodosum (painful , tender , indurated u can fell a mass)

Ddx : sarcoidosis ,IBD , TB , BEHCET , fungul.

7) heliotrope rash , gottron's papules (dermatomyositis)

SLE

Systemic ,involve mul. Sys.

Lupus , wolf like ugly looking rash

Erythematosus , redness

Elevated with raised patches → discoid malar rash.

benign rash → butterfly rash.

-How it happen?

Apoptosis program cell death spontaneously and cleared by immune sys. (by B cells)

If we block this (phagocyte clearance process swill not happen) → auto reactive cell will be → autoantibody immune complex → destruction of tissue .

- Age at risk : reproductive age F > M 10- 15 :1

-Risk Factor :

1) female : -hormone (that's why inc. in reproductive age)

2) genetic : DR2 DR3

3) kleinfelter : XXY male

4) UVR

5) infection esp. viruses

6)smoking -diet not affect lupus

7) pregnancy (details later on)

8) lupus is a familial condition (mother to daughter) 1: 250

As a twins : concordance rate of lupus if on twin get lupus 25-70% .

-Survival : 90% 10 years.

Clinical feature

- malar rash over checks and bridge the nose

  Diff. btw discoid lesion and malar rash

  Malar rash(regular) ⟶ go w/o scar , benign lesion , little edema ,no raised edge , no hypo or hyper pigmentation no dermal atrophy .

  Discoid lesion can leave scar , treat it as a vital organ , raised edge , hypo or hyper pigmentation , dermal atrophy .

- Alopecia , hair loss more than 100
- Oral ulcer

  Painless , 2-3 days will heal , superficial lesion .

SLE arthropathy

-<u>Non</u> erosive arthritis

-Hand <u>may show</u> diffuse soft tissue swelling, ulnar deviation, swan neck deformity , MCP subluxation.

- Arthritis

  No erosion , but can be deformity (tendon and ligament affect) ,deformity it can be **corrected by** prior sign , migratory , mostly ,symmetrical , MCP – PIP could be involve .

  - differentiate btw RA and SLE :no morning stiffness , age no erosion.

- Raynoud phenomenon : vascular response to cold or emotion

  White (vasospasm) then blue (deoxygenation) then red (local tissue acidosis will cause reactive vasodilatation) painful stage . this occure in 2,3,5 fingure thumb rarely (secondary Raynoud) . IF IT UNILATERAL MOST LIKELY SCLERODERMA

- Patechie Thrombocytopenia , vasculitis

- Livedo reticularis (net like dilated blood vessels) ddx anti phospholipid syn.

- -Renal finding → the most common cause of mortality and morbidity and affect 50% of the cases.

  Immune complex mediated .

  - Glomerulonephritis

  1) minimal changes FOOT

  2) proliferation mesangial

  3)focal segmental

  4)diffuse

  5)membranous (HEAVY PROTEINURIA)

  6)advanced (sclorosing) .

  used for prognosis .

  -oliguria – proteinuria – edema – HTN - hematuria (RBC cast) so we have to do urine analysis for SLE patients .

- Fever (so exclude infection) .

- Serositis : pleurisy (stabbing , local. , inc. w inspiration .)

- Seizure (it happen because of renal(nephritic) , inc. BP , so patient get HTN encephalopathy .

- Hemolytic anemia and anemia of chronic disease: (HSR II) (incr. bilirubin , incr reticulocyte , diag. also by coombs test) .

  - leukopenia (decr. lymphocyte) ddx HIV .

- Aseptic endocarditis (immune complex non infected cause) .
- Psychosis. ddx steroid overdose (rare).

-lupus started w fatigue , fever , WL and affect other sys.

Diagnosis by

SLE CRITERIA

Criterion	Definition
1. Malar rash	Fixed malar erythema, flat or raised
2. Discoid rash	Erythematous raised patches with keratotic scaling and follicular plugging; atrophic scarring may occur in older lesions
3. Photosensitivity	Skin rash as an unusual reaction to sunlight, by patient history or physician observation
4. Oral ulcers	Oral or nasopharyngeal ulcers, usually painless, observed by physician

Criterion	Definition
5. Arthritis	Nonerosive arthritis involving two or more peripheral joints, characterized by tenderness, swelling, or effusion
6. Serositis	a. Pleuritis (convincing history of pleuritic pain or rub heard by physician or evidence of pleural effusion)*or* b. Pericarditis (documented by electrocardiogram, rub, or evidence of pericardial effusion)
7. Renal disorder	a. Persistent proteinuria (> 0.5 g/day or > 3 +)*or* b. Cellular casts of any type
8. Neurologic disorder	a. Seizures (in the absence of other causes)*or* b. Psychosis (in the absence of other causes)
9. Hematologic disorder	a. Hemolytic anemia *or* b. Leukopenia (< 4000/µL on two or more occasions) *or* c. Lymphopenia (< 1500/µL on two or more occasions) *or* d. Thrombocytopenia (< 100,000/µL in the absence of offending drugs)
10. Immunologic disorder	-Anti–double-stranded DNA*or*b. -Anti-Sm -Positive finding of antiphospholipid antibodies based on (1) an abnormal serum level of immunoglobulin G or M anticardiolipin antibodies, or (2) a positive test result for lupus anticoagulant using a standard method, or -False-positive serologic test for syphilis known to be positive for at least 6 months and confirmed by *Treponema pallidum* immobilization or fluorescent treponemal antibody absorption test
11. Antinuclear antibody	An abnormal titer of antinuclear antibody by immunofluorescence or an equivalent assay at any time and in the absence of drugs known to be associated with "drug-induced lupus syndrome"

At least 2 clinical criteria and +ANA and another serological markers (anti ds DNAactivity of SLESPEC.60-80% , anti SMITH SPEC.30% ,anti phospholipid). 4/11

Sensitivity 96% , specificity 96%.

ANA give result -,+ so it diagnostic not used in follow up .BUT anti ds DNA num. used in follow up +UA ,CBC . ESR CRP, .

New SLICC criteria can dx only by :

- ✓ +ANA and ,Lupus nephritis by biopsy (membranous GN).

Cause of deaths : 3 time more than healthy person

- ✓ Acute renal failure (renal involvement most prognostic factor)
- ✓ Infections
- ✓ Thrombosis

- ✓ Sepsis and septic shock
- ✓ Pulmonary hemorrhage

Managements :

- ✓ Steroid and immune suppression > CNS and Renal involvement
- ✓ Treat infection > aggressively , no infection in lupus should go home.

Malar rash →1. Avoid sun exposure ✓

2. local steroid ✓

- ✓ Avoid NSAID cause interstitial nephritis . diag. by eosinophile in urine.
- ✓ Anti-malarial drugs (hydroxychloroquine) keep the patient in remission :
  - Reduce inflammation
  - Remission joint , skin and B. vessels involvements
  - Anti lipidemic
  - Safe in pregnancy
  - SE:
    - Hyperpigmentation
    - Myopathy in RF
    - Retinal and corneal toxicity (halos around lights and photophobia, annual fundoscopy is necessary)

Vaccination →influenza (active) ✓

Biological therapy ✓

Belimumab ✓

Belimta (biliniomab) →to reduce remission ✓

Suppress B cell development + block B-cell stimulation ✓

Drug-induced SLE:

- ✓ Hydralazine
- ✓ Procainamide
- ✓ Quinidine

- ✓ Methyldopa
- ✓ Chlorpromazine
- ✓ Isoniazid

- Bitter than other SLE
- Affect male and female (equal ratio)
- No CNS and Renal involvements
- -ANA and –Anti ddDNA
- Treatable with cessation of drug (remission within 3-6 months).

SLE and pregnancy

- ✓ Not affect fertility (as Antiphospholipid antibody syndrome)
- ✓ Worsen with pregnancy so ;
- ✓ If the female is stable (4-6 months S & S-free) > get pregnancy , But if develop symptoms , the fetus should aborted
- ✓ If the female unstable > pregnancy is prevented

The pregnancy can induce exacerbation so the pt have renal failure and she can lose her kidney.

- ✓ Avoid sun, smoking, infection

Neonatal/congenital SLE :

- ✓ Less than 1%
- ✓ Congenital AV-block (bradycardia) IN ICU
- ✓ Neonatal rash
- ✓ Treated by antibiotics and vaccines
- ✓ +Anti-jo-1 Ab

Anti-phospholipide syndrome:

1) DVT 2) thrombocytopenia 3) miscarriage

DONE BY :

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