538
9.m

Ankylosing Spondylitis. ✓✓

Back pain initially

Extended to whole supine

Spine stiff

Pain now in rest as well + Pro-long Rest

Migratory

03. Physical sign.

Investigation

Rx

Ankylosing Spondylitis:

Q- 20 yr old smart man presents with c/o backache for almost a year. Initially it was mainly in lower back. but now has almost extended to the whole spine. Pain also radiates to both hips and back of Thigh. Pain gets aggrevated with prolong rest and inactivity. He feels his spine is very stiff and now it's difficult to take deep breaths by chest expansion. He feels extremely Fatigued. He had 02 attacks of Conjuctivitis in last 02 months.

- Diagnosis
- 02 Physical sign you will look for.
- Investigations
- Treatment.

Diagnosis -
Ankylosing Spondylitis

Physical signs:

Low-back pain due to Sacroiliitis

Peripheral arthritis (Inflammation of large joints of arms and legs
- elbow
- wrists
- Joints
- Ankles
Migratory.

Enthesitis
(Inflammed + Pain)

Diagnosis

ESR elevated

CRP elevated

Human leukocyte antigen HLA-B27 +ve

① → X-ray of sacroiliac Joint

* Best initial Test
* Sacroiliac joint disease with erosions and sclerosis

② → X-ray of spines

* "Bamboo spine" Fusion of vertebrae

③ → MRI Spine

* Most accurate test.

Treatment

Conservative:

Daily Back extension exercise

* swimming is ideal

Avoidance of poor posture

NSAID's

Best initial Management

Anti-TNF Therapy

Adalimumab, infliximab, etanercept

DMARDS

Methotrexate

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Gout ✓✓

R.arthritis ✓✓

Multiple Bilateral + Polyarthritis
hands involved.

Esp - hands
wrists

Morning stiffness

Gritty feeling eyes

Dryness of eyes

Signs in the hands

Diagnostic Criteria

Investigation

Management

Gout

Rheumatoid Arthritis

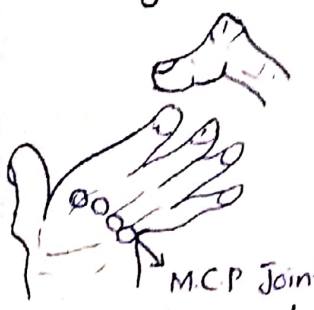
Q- 28 yrs old female presented with Paly-arthritis involving small and medium size joints for last 5-6 months. There is also History of morning stiffness in joints of hands.

Q- 30 yr.old female presented with 8 month history of joint pain, mainly involving hands and feets along with wrists and elbows bilaterally. Joints are swollen, warm and painful. It takes more than an hour in the morning to resume her daily routine as the hands are very stiff in the morning. She has taken many medicines including Rx from a Hakeem but only temporary improvement.

Q- 25 yr.old Female with bilateral symmetrical Arthritis of small-joints of hands after Pro-long Rest especially on waking up and stays so far more than an hour. Her shoulder, elbow and wrists joints are also invalved although with slightly loss severity.

Q- 30 yr.old Female presented in OPD with pain, swelling and redness in multiple Joints for last 6 months. She complained of worsening of above mentioned problem for last 02 weeks. The joints mainly invalved are small joints of hands Bilaterally. There is Hx of similar joint pain in one of her younger sister too. Pain especially early in morning. when she wakes up for fajar prayer, when she is unable to move her fingers properly for almost less than an hour being so stiff. Gritty feelings in eyes & dryness

signs in hands:



← Boutonniere deformity of Thumb

Ulnar deviation (Metacarpophalangeal Joint)

Swan-neck deformity of Thumb

Dignastic criteria

Joints affected

1 large joint = 0

2-10 large joint = 1

1-3 small joints = 2

4-10 small joints = 5

Seralogy

-ve RF + CCP = 0

Low + RF or CCP = 2

High + RF or CCP = 3

Duration of symptoms

< 6 weeks 0

>6 weeks 1

Acute-phase reactants

Normal CRP & ESR 0

Abnormal CRP & ESR 1

Definitive Diagnosis ≥ 6 score.

Diagnosis : Rheumatoid Arthritis.

Investigations:

CBC = Anemia
ESR ↑
CRP ↑

ANA = +ve

R. Factor = +ve (70%) Poor specificity

Anti-CCP = sensitivity similar to R. Factor But high specificity (95%)

Anti cyclic citrullinated Peptide antibody.

Assosiated with more severe disease.

* x-ray of hand and wrist -

① ✓ symmetrical narrowing of Joint space
② ✓ Peri-articular osteopenia
③ ✓ Bone erosion
④ Deformaties.

CARC + D

Management :-

DMARD's

NSAID's & steroids

Anti-Tumor Necrosis Therapy

Biological.

DMARDs

① Disease modifying anti-rheumatic Drugs.

slow the progression of Disease

Given along with steroids.

Methotraxate → Given with Folic acid (5mg/week)

S.e effect ⟹

Hepatotoxicity

B. marrow suppressic

Pulmonary Fibrosi

Sulfsalazine → Used in combination with MTX

Hepatitis

Neutropenia.

Pancytopenia.

Hydroxychloroquine → DMARD

Renal Toxicity

Pencillamine → DMARD

✓ Mouth ulcer

Metallic Taste

Gold → DMARD

✓ Mouth ulcer

Alopecia.

Proteinuria.

NSAID & steroid :

Relief of Pain

Anti-Tumor Necrosis Factor

- Adalimumab
- Infliximab
- Etanercept

Biological Agents :-

Anakina = IL-1 receptor antagonist

Tocilizumab = IL-6 receptor "

554.

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9.m.

Gout 1st-

→ Big toe involved

→ weight bearing joints

→ A-C (21K-100K)

- Investigation
- Rx acute
  chronic
  Diet.

Gout

Q- 30 yr. old male presented with complain of severe painful swelling of big-toe of right foot for 3 day.

- Diagnasis
- Investigate
- Rx.

Q- 45 yr. old male presented to you in OPD clinic with severe pain and swelling of right big-toe for last 3-6 hrs. Pain is localized, severe and has grossly made his movement difficult esp. weight bearig. He gave history of similar attacks previasly.

- Diagnosis.
- Investigations
- Rx
- Dietry Restrictins.

Diagnosis: Gout

Investigation:

Acute attack = Elevated ESR

CBC = ↑WBC count

Arthrocentesis: (Joint aspiration)

Most accurate test

MSU → crystals

WBC count = 20,000 - 100,000 /mm3

Polarized Microscopy:

Needle like crystal

Negatively Birefringent

Culture and sensitivity

For gram -ve

For gram +ve.

Management:-

Acute attack

① - NSAIDS

Best initial Therapy

S.effect

Gastritis

Renal insuffi

② - Chalchicine

Alternative to NSAIDs

S.effects

Nausea

Vomiting

Diarrhea

Bone marro

supp

③ Steroids

In acute attacks

when NSAIDS fail

CI

Renal insuffi

Chronic management

Conservative:

Avoid high protein diet
Avoid alcohol consumption
Avoid hyperurecemia promoting Drugs

Urate lowering Therapy :

① → Allopurinal → Drug of choice
↓ uric acid synthesis
xanthine oxidase inhibitors

S.effects
✓ Skin Rash
✓ GI-upset
✓ Hypersensitivity Reaction.

② → Febuxostat → non-purine xanthine oxidase inhibitor alternative to allopurinal

S.effects
✓ Liver toxicity
✓ Rash
✓ Arthralgia

③ → Uricosuric agents

- Probenecid + Sulfinpyrazone

S.effects
Uric acid over producers
Renal impairment

④ -> Peglotricase :

- Rx of Tophaceous gout resistant to standard Therapy

Infusion Reaction

Bilateral
swelling

Diet control :

Avoid high purine Diet

Avoid alchohal consumption

Avoid hyperuricemic.

↑ vit-C or coffee

SLE ✓✓ 1st

→ Polyarthralgia
Bilateral
swelling
Photosensitivity
Rash on face

↑ C-reactive Protein
↑ ESR
↑ ANA the

Hair loss
Depression
Plural effusion

Feurish
Weight loss
Fatigue

Investigation
↓
Criteria
↓
Rx.

Diagnosis – Systemic lupus Erythematous

Inuestigations:

CBC = Hemolytic anemia.
ESR = Luekopenia, lymphopenia, Thrombcytopenia
U & C = ↑ but mostly normal.
↓ Complement system
Proteinuria
Cellular casts

Clinical – M Rash
D Rash
P sensitivity
Oral + Pharyngeal ulcer

Autoantibodies:

✓ Anti-Nuetrophilic antibody * (Best)
Highly sensitive.

✓ Anti-Double standard DNA
Highly specific for SLE (795%)
sensitivity 30%

✓ Anti-smith antibodies
Highly specific for SLE

✓ Anti-phasphalipid antibodies.

Diagnastic criteria: ≥4 Dignastic.

- Malar rash
- Discoid rash
- Photosensitivity
- Oral + Nasopharyngeal ulcer.

- Proteinuria (RBC casts)
- Seizure (Psychosis)

- +ue ANA
- +ue Anti-Ds DNA
- +ue Anti-Sm.
- Anti-phasphalipid antibodies

- Non erosive Arthritis.
- Serositis.

- Hemalytic anemia
- leucopenia
- Lymphopenia
- Thromboaytopenia

Treatment

① → Avoid sun-exposure.
② → Analgesics + NSAIDs - mild disease
③ → Hydroxychloroquine - skin + joint symptom.
④ → Belimumab (Arthritis, serositis) etc
⑤ → High Dose IV steroid + IV cyclophasphamide (Acute flares)

④ Maintainance Therapy

oral steroid + Immunosuppressants
↓
Azathioprine
Methotraxate
Mycophenolate

⑤ Renal Disease

① ✓ Ace-inhibitors
② ✓ Induction ē steroids + mycophenolate (or) cyclophasphamide.
③
④ ✓ Renal replacement Therapy

Septic Arthritis

- Multiple Joints involved
- One gets better Then other gets involved
  - Redness pain swelling loss of movement and function.
  - Palpitations
  - Phryngitis
  - Pleural effusion.

- Diagnasis
- Investigation
- Treatment

Reactive Arthritis. ✓✓ 540 IM

Diagnosis

- ✓ CBC- Leucocytosis
- ✓ ↑ESR
- ✓ ↑CRP
- ✓ Arthrocentesis (Joint fluid aspiration)
  - WBC > 50,000 cells
  - > 90% Polymorphs (Neutrophils)
- ✓ Gram stain +ve in 50% cases
- ✓ Culture +ve in 90% cases
- ✓ Gonococcal infection
  - Gram stain +ve in 30% case

Treatment:

(☆ Prompt emperic antibiotics
IV-antibiotic at least 2 times
Oral antibiotics for 04 weeks.

(A Adults (Healthy)

✓ Flucloxacillin (2g IV 6 hourly)
or
First Generation cephalosporin
✓ (+ IV vancomycin)

(B Gram +ve suspected Gram -ve Arthritis:

✓ (3rd gen cephalosporin → Ceftriaxone ☞ IV
Or ✓
Aminoglycoside → IV-gentamicin.

(C P.m suspected Psuedomonas: ✓ (Amikacin)
Aminoglycoside +
Anti-P-penicillin
(Piperacillin)

suspected Gonococcal arthritis
3rd-Gen cephalosporin IV-ceftriaxone

Reactive Arthritis. ✓✓ 540 IM.

→ Mono arthritis + Involved Right knee joint

→ Itching, Redness, Lacrimation

→ Urinary complain Burning Micturation.

Diagnosis

Investigations

Rx.

Reactive- Arthritis

Q- 30 yr. old male presented with severe-mono arthritis of right knee joints for last 03 weeks. He also complains of Itching, excessive redness and lacrimation from both eyes and urinary complains like burning micturation for 02 weeks.

- Diagnosis
- Investigations.
- Treatment.

Diagnosis

Reactive Arthritis

Investigation

- ✓ ↑ ESR
- ✓ ↑ CRP
- ✓ Synovial Fluid Examination (Atherocentesis)
  - Inflammatory cells ✓
  - Giant Macrophages (Reiter's cells)
- ✓ X-ray
  - ① → Asymmetric and unilateral sacroiliitis.
- ✓ PCR of urine or Genital swab.
- ✓ Stool Culture

Treatment :-

Rest

NSAID's

Analgesics

Intra-articular Steroids

Antibiotics , DMARD's

- Anterior Uveitis ✓

↓

Rx with corticosteroid

- Topical
- systemic
- sub-conjuctival

Osteoarthritis ✓✓

Age - 50 yrs old

Severe pain in the both knees (less joints involved)

Pain worst after initial steps in morning

Rest - Relief

Asymmetrical

- ✓ Diagnosis
- ✓ Investigation
- ✓ X-ray findings
- ✓ Rx

Osteoarthritis

Q- A 50 yr. old grossly obese lady presented to the medical OPD clinic with complaint of severe pain in both knee joints, more in left one. Pain is worst after she walks for initial few steps after which she also feels slightly better. She feels extreme pain to stand up from floor.

- less No of joints invalued.
- Herbeden Bouchards Nodes.
- Weight bearing ones
- Relieved by Rest.

Diagnasis

Investigation

Rx.

Diagnasis:

Osteoarthritis.

Inuestigation:

CBC - Normal

ESR - Normal

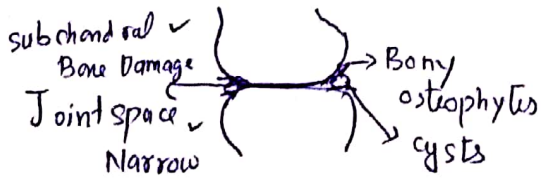
CRP - Normal

ANA - Absent

R. Factor - Absent

X-ray:

- Asymmetrical joint space narrowing
- Osteophytes
- sub-chondral bone damag.
- Bone cysts
- No ankylosis.



No ankylosing.

(Fusion of Joints)

Rx :

Non-pharmocalogical :

↓ weight

Exercise - Aerobic

Strengthning.

Quadriceps strengthning exercise - knee OA exercise

Patient education.

Pharmacalogical :

① → Acetaminophen (↓ Pain ↑ Function)

② → NSAIDS - Both Topical

Oral

③ → Intra-articular steroids

④ Intra-articular hyaluronan inj

⑤ Joint replacement