JUVENILE IDIOPATHIC ARTHRITIS (JIA)
Outline of Lecture

• What is JIA: Definition
  : ILAR classification
• Clinical Approach
• Investigations
• Management Principles
DEFINITION

• Arthritis which begins before the 16th birthday

• Has no known cause identifiable

• Lasts for > 6 weeks

• Diagnosis of exclusion

• Incidence of JIA is 10 per 100000
ILAR* Classification of JIA

• Systemic arthritis
• Polyarthritis: Rheumatoid factor: negative, positive
• Oligoarthritis: persistent extended
• Enthesitis related arthritis
• Psoriatic arthritis
• Undifferentiated: fits no category: fits more than one category
The ethos behind ILAR......

- **Homogeneity**: define homogenous groups on the basis of patterns of clinical features commonly seen in children with arthritis

- **Exclusivity**: Each group is mutually exclusive i.e. a patient cannot be included in more than one group
### Parameters used to classify the child with JIA:

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>Presence of objective arthritis</td>
</tr>
<tr>
<td>2</td>
<td>Site of inflammation: large, small, peripheral, axial, enthesitis</td>
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<tr>
<td>3</td>
<td>Duration of objective arthritis</td>
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<tr>
<td>4</td>
<td>Number of joints involved</td>
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<tr>
<td>5</td>
<td>Systemic disease</td>
</tr>
<tr>
<td>6</td>
<td>Lab findings: ANA, RF, HLA B27</td>
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<tr>
<td>7</td>
<td>Onset age</td>
</tr>
<tr>
<td>8</td>
<td>Gender</td>
</tr>
<tr>
<td>9</td>
<td>Progression of joint involvement: limited or extended oligoarthritis</td>
</tr>
<tr>
<td>10</td>
<td>Other system involvement</td>
</tr>
<tr>
<td>11</td>
<td>Family history of certain diseases: spondyloarthopathy, psoriasis</td>
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</tbody>
</table>
Oligoarthritis

- OJIA is 40 to 50% of all JIA — (Western data)
  - Young girls
  - Large joint involvement
  - Predominantly lower limb (limp)
  - Frequent chronic anterior uveitis
    - ‘The eye and joint disease evolve independently
  - ANA antibodies in 40 to 75%
Systemic onset JIA

SOJIA accounts for 10-20% of all JIA patients

Almost equal sex incidence

Mean age 4-6 years

HLA:DR 5/DR8/DR4
SOJIA....Clinical features

• **Fever pattern:** Quotodian
  Goes below, baseline
Child well in between
spikes
RE involvement, Serositis

• **Arthritis:**
Most develop it in the first 3
months, 50% develop chronic
erosive arthritis

• **Rash:**
Evanescent, Salmon pink Can
be urticarial/pruritic
Polyarticular JIA: Rf negative

- Girls: Age 3+
- Symmetric large and small joints
- Hip, TMJ and cervical spine may be investigated
- Extra articular-low grade fevers
- ANA –40%
- ESR, WBC- moderate elevation
- Genetics-HLA DRB1
Polyarticular JIA Rf positive

• Females predominate
• 10 year +, however may begin at an early age

• Symmetric small joint hand and foot disease ; large joints
• Rarely skin vasculitis, nodules, or pulmonary disease as described in adults

• Progressive, aggressive and erosive disease
Enthesitis related arthritis

• Arthritis + Enthesitis
  Or
• Arthritis or Enthesitis + two

  – SI joint tenderness and or Inflammatory spinal pain

  – HLA B 27

  – Family history of HLA B 27 assoc disease

    – Acute anterior uveitis
    – Onset of arthritis in a boy > 8 years

  – Axial skeleton involvement unusual in children!
Psoriatic Arthritis

- Arthritis and psoriasis
- Or arthritis + family history of psoriasis with at least one of the following
  - Dactylitis
  - Nail abnormalities
- No HLA B27 association
- Spinal inflammatory disease is rare
Red color, font 28,

- Black color, 28 font. Calibri.
- 8-10 lines only
  - If there is sub line like here... font can be 24
Thank You