MANAGEMENT

- Optimal management of JIA is delivered by an experienced multidisciplinary team.

Members of multidisciplinary team are as follows:

- **1. Medical:** Rheumatologist , Opthalmologist , Radiologist.
- **2. Community:** Family , Friends, School teacher.
- **3 .Professional allied to medicine :** Physiotherapist , occupational therapist, Psychologist
-

THE GOALS OF MANAGEMENT OF JIA

- The goals of JIA management are the following:
- **1.** Provide analgesia.
- **2.** Control inflammation.
- **3.** Maintain joint function.
- **4.** Prevent deformities.
- **5.** Treat complications and extra-articular manifestations.
- **6.** Ensure optimal nutrition.
- **7.** Rehabilitition.
- **8.** Ensure optimal psycosocial health.
- **9.** Educate parents/ patients regarding disease.

MEDICAL MANAGEMENT

- **First line drugs :** -NSAIDs are usually given all types of JIA for 4 to 8 weeks.

- Commonly used are : Naproxen, Ibuprofen, diclofenac and Indomethacin. Usually well tolerated .Naproxen may be associated with scarring pseudoporphyria affecting face.

MEDICAL MANAGEMENT Cont…

- **Second line Drugs:** `Disease Modifying Anti-rheumatic Drugs`- : include Methotrexate, Hydroxycholroquine, Sulphasalazine, Leflunamide, Cyclosporine, Cyclophosphamide and Azathioprine.

- **Methotraxate:**

  a). Parenteral(o.5-1mg/kg/week) : for polyarthritis, extended oligoarthritis and systemic onset JIA.

  b). Subcutaneous route (0.5-1mg/kg/week): is reserved for those who fails to tolerate parenteral therapy

- **NOTE:** immunization with live vaccine is contraindicated during treatment with MTX. It is better to vaccinate the child with varicella zoster vaccine 2 weeks prior to start therapy to those who are known to susceptible.

- **Leflunamide:**

oral route:

Loading dose:

< 20 Kg ➔ 100 mg once

20-40 kg ➔ 100 mg daily for 2 days

> 40 kg ➔ as adults

Maintenance dose:

< 20 Kg ➔ 10 mg every other day

20-40 kg ➔ 10 mg daily or 20 mg every other day

> 40 kg➔ as adults

- **Hydrochloroquine:**

Oral route: 200 mg , 1-2 times daily

- **Sulfasalazine:**

-Children 6 yrs and older

Oral route: 40 - 60 mg/kg/day divided into 3 to 6 doses.

Management cont…

Use of corticosteroid in treatment of JIA :

Oral corticosteroid-:

- Oral use in large doses (up to 60 mg) prior to DMARDS is to avoid MAS in SOJIA .
- Use of oral corticosteroid in other subtypes is while awaiting the desired effect of DMARDs therapy .

Management cont…

Intra-articular therapy : Intra-articular corticosteroid (IATH) is well established for mono or oligoarthritis.

Parenteral therapy : Parenteral high dose used intermittently in ‘Pulse fashion’ is a useful and very effective in SOJIA or polyarticular JIA.

Management cont..

New approach in treatment:

1. Biological agent :

Eternacept , Infliximab Anti –TNF.

Anakinra-anti IL-I. Rituximab-B cell depletor.

2. Early initiation of DMARDs and combination DMARDs

3. Intravenous Ig.

4. Autologous stem cell transplantation.

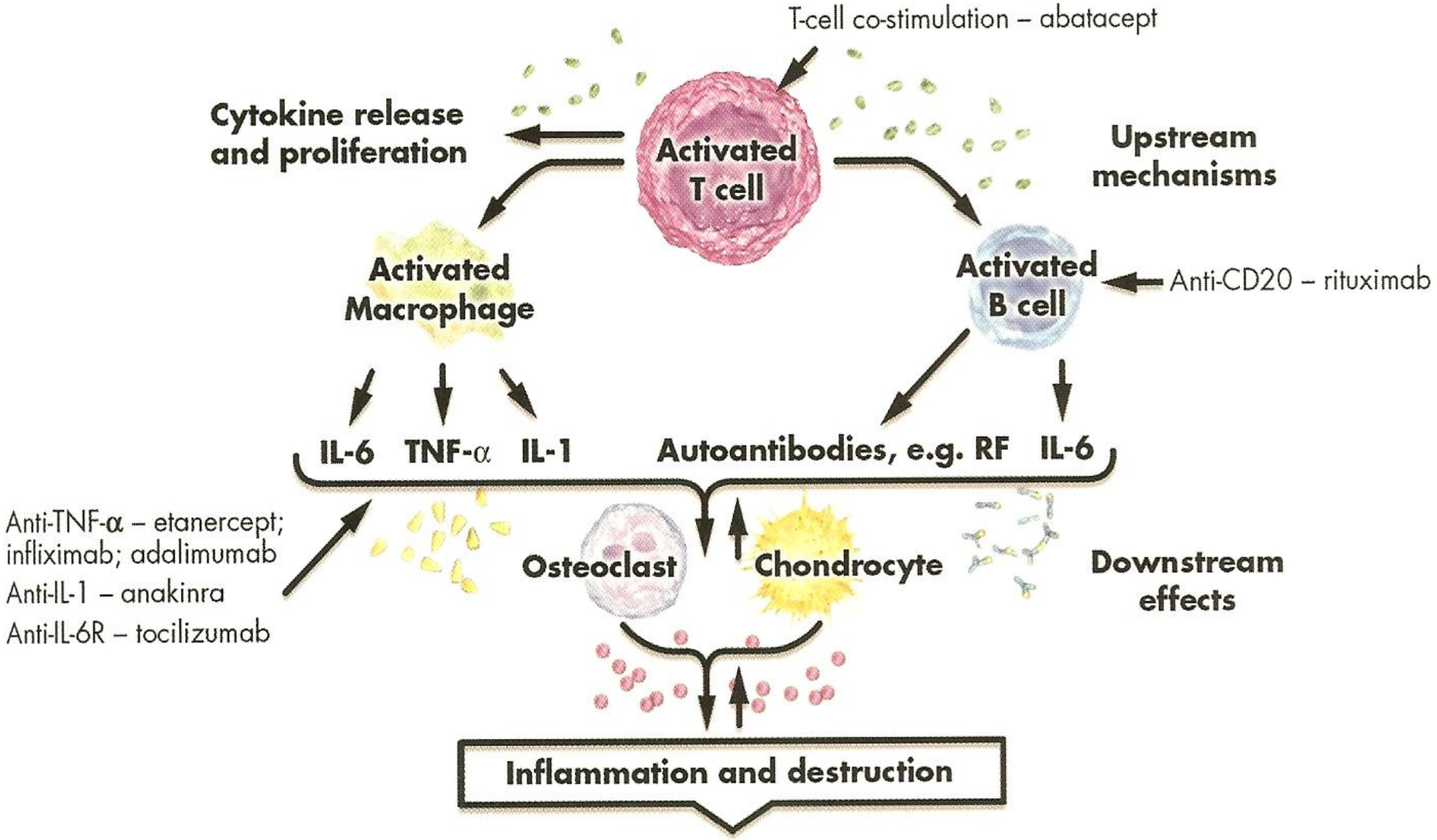
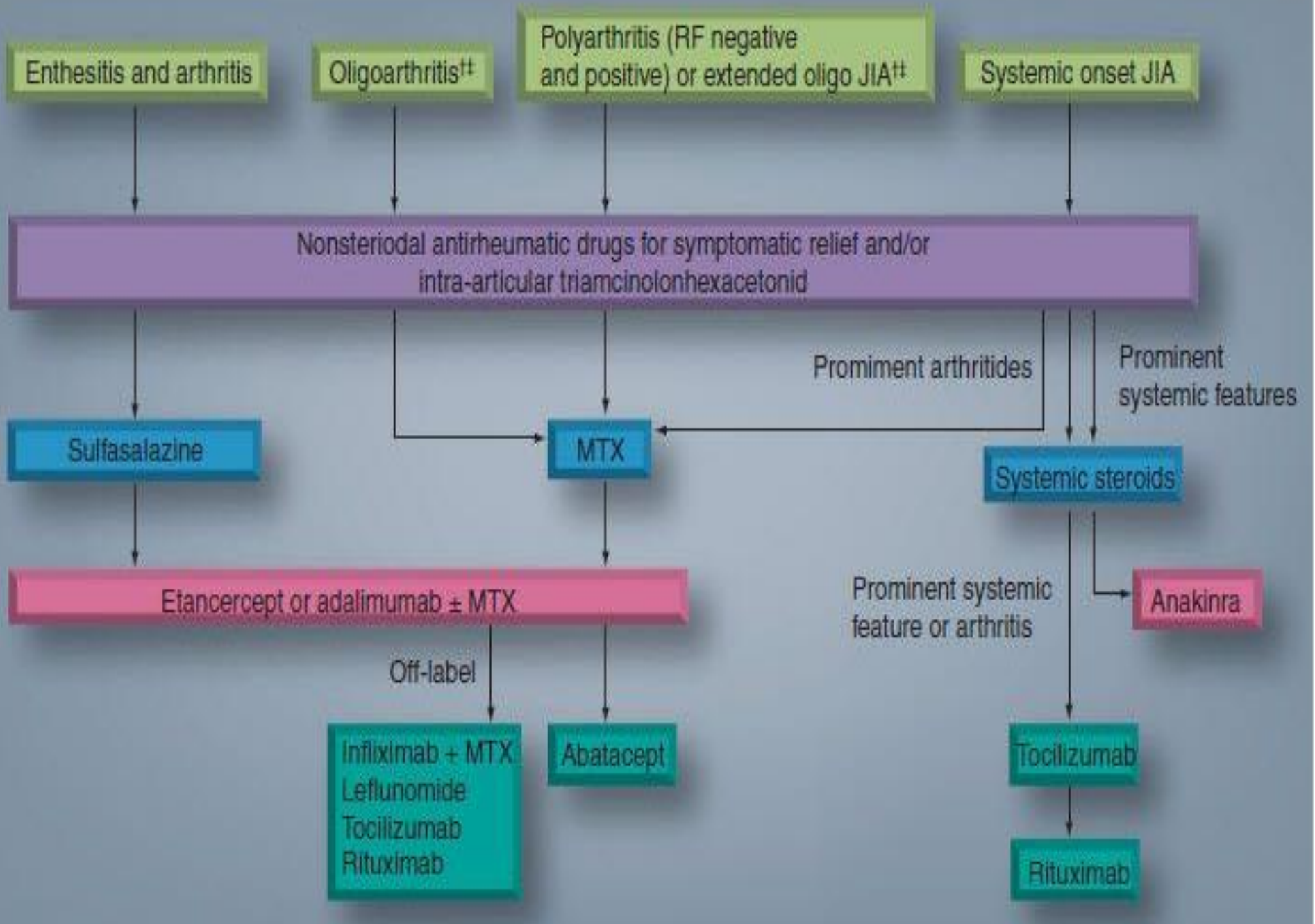


FIGURE **3.**
Current and emerging biologic therapies that selectively target rheumatoid arthritis immunopathology. IL, interleukin; TNF, tumor necrosis factor; RF, rheumatoid factor; IL-6R, interleukin-6 receptor.


Enthesitis and arthritis
Oligoarthritis††
Polyarthritis (RF negative and positive) or extended oligo JIA††
Systemic onset JIA
Nonsteriodal antirheumatic drugs for symptomatic relief and/or intra-articular triamcinolonhexacetonid
Prominent arthritides
Prominent systemic features
Sulfasalazine
MTX
Systemic steroids
Etancercept or adalimumab ± MTX
Prominent systemic feature or arthritis
Anakinra
Off-label
Infliximab + MTX
Leflunomide
Tocilizumab
Rituximab
Abatacept
Tocilizumab
Rituximab

Rx of Oligoarthritis JIA

- **NSAID: for 4 to 6 weeks and/or intra-articular steroid.**
- **If improvement :** observe ,may be in remission or flare and become extended oligoarthritis or become polyarthritis or remain as persistant oligoarthritis

If extended oligoarthritis : Treat as polyarthritis JIA.

Rx of Oligoarthritis JIA cont..

May progress to polyarthritis : Treat as Polyarthritis or

Remain as persistant oligoarthritis : Intermittent Intrarticular steroid and/ or Methotraxate or Sulfasalazine may be given.

- **If no response:** Antitumor necrosis factor medication may be given .

Rx of Polyarthritis JIA

- **NSAID** for up to 6 weeks
- **DMARDS**

Similar to treatment of adult rheumatoid arthritis: Step up or step down strategy

Step up strategy:

Start with one drug in minimum dose (MTX OR Leflunamide) then gradually increase the dose until maximum dose if no response use combination therapy with Hydroquine or salazopyrine.

Rx of Polyarthritis JIA cont..

Step down strategy:

We start with combination therapy

- **Double combination therapy**

MTX+ Hydroquine OR Salazopyrine

#Leflunamide+ Hydroquine OR Salazopyrine

MTX+ Leflunamide

- **Tripple combination therapy**

MTX + Hydroquine + Salazopyrine

Leflunamide + Hydroquine + Salazopyrine

Rx of Polyarthritis JIA cont..

- **Steroid therapy** as bridging medication or during serious disease flare
- **If inadequate response:** Antitumor necrosis factor medication , consider oral steroid

Patient with Systemic onset JIA

If systemic features are prominent

- **Steroid**

We start with steroid therapy intially prior to DMARDS to avoid MAS

#Oral route: high dose of steriod up to 60 mg|day

#Parenteral route: consider I.V in 1st week or intermittent I.V pulses.

- **DMARDS**

When fever and other systemic features improve we can use DMARDS as in polyarthritis subtype

- **NSAIDS:** Full dose For 6-8 weeks

If arthritis is prominent

Treatment as in polyarticular

Patient with Systemic onset JIA cont..

- **If inadequate response:** Steroid sparing medication such as
  #I.V immunoglobin
  #Antitumor necrosis factor
  #Interleukin 1 receptor antagonist
  #cyclosporin A
  #Interleukin 6 antibody.

If inadequate response with very severe disease : consider autologous stem cell transplantation.

Rx of complications

- **Uveitis:** Topical steroid,
  Mydriatics,
  MTX(second line).
- If not controlled with oral MTX, then parentral MTX or MTX with ciclosporin should be considered.
- **MAS:** use of high dose corticosteroids and ciclosporin with vigorous treatment of sepsis.

CRITERIA OF REMISSION

- Morning stiffness<15 min
- No fatigue
- No arthralgia.
- No joint tenderness or pain on motion.
- No soft tissue swelling in joints or tendon.
- ESR<30 in female and <20 mm in Ist hr in male.

*Five of the above criteria for at least 2 consecutive months.

- **Bad prognostic factor:**
- **Rheumatoid factor positive.**
- **Systemic onset disease.**
- **More than a year without remission.**
- **Early development of nodules and erosions.**
- **Severe functional impairment.**
- **Involvement of hip joint.**

PROGNOSIS

- JIA is some times self limiting, may persists months to yrs. Prognosis depends on subtypes of JIA.
- **Oligoarticular JIA :** is most benign.
- **Seropositive poly articular and systemic onset JIA :** have worst prognosis.
- **SOJIA:**

1. 30% complete remission by 5yrs.
2. 30% cyclic periods of resmission with exacerbation.
3. 30% still have disease.

Psoriatic arthritis: outcome is variable, with both oligo and polyarticular courses described.


Thank You