The Joints are Painful & Swollen: Do I give Steroids?

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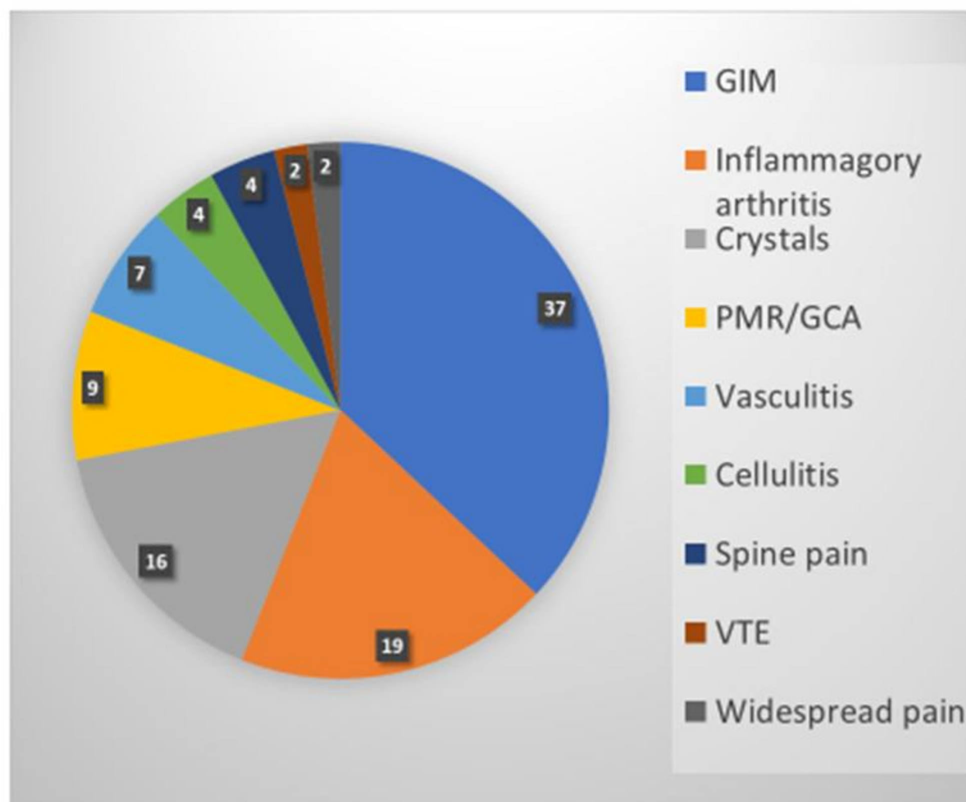
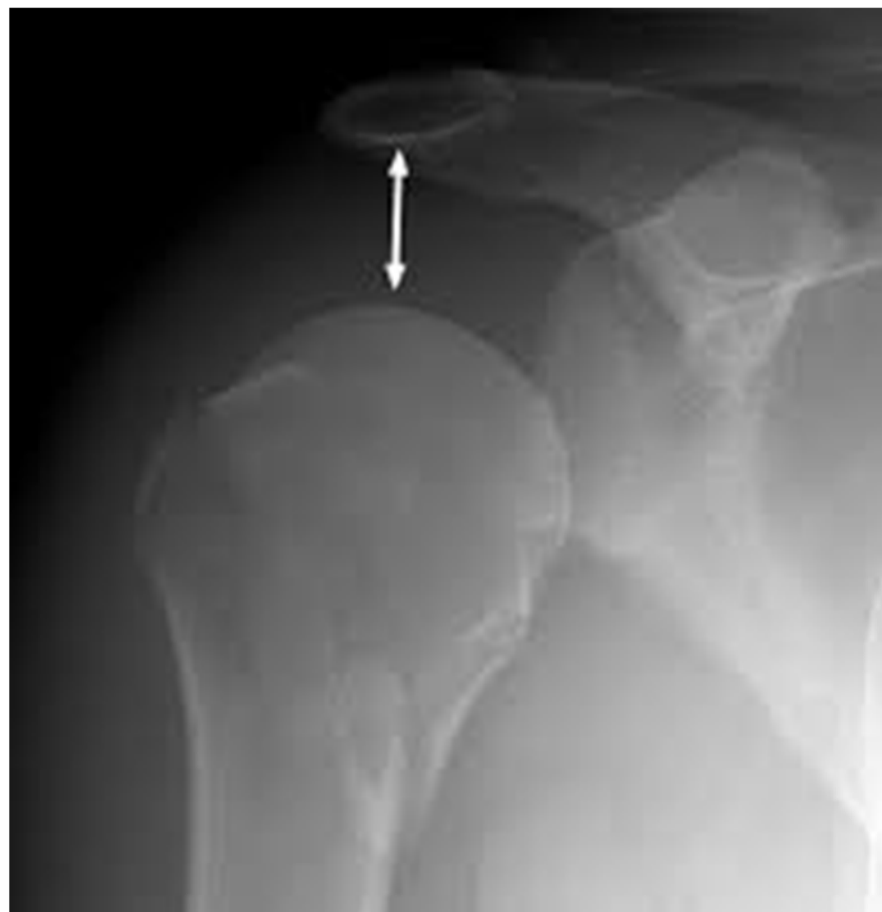
Learning Objectives

- When to use an acute rheumatology service
- Appropriate use of steroids by condition
  - Injection or Oral or Intramuscular
- Use of steroids in supporting making diagnosis
- Management of steroid related bone disease

Conditions seen

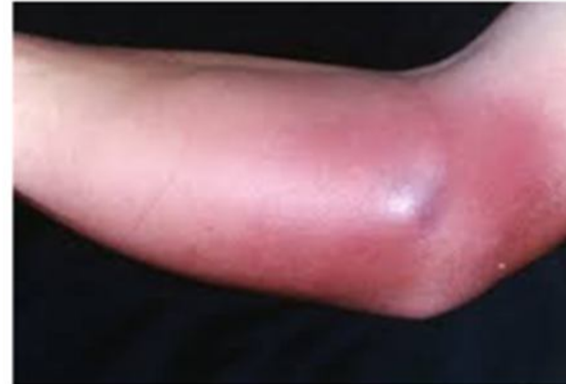




Would you inject this elbow?

Hot swollen joint

- Gout
- Other Crystals
- Septic joint v cellulitis
    - “Mantra aspirate all hot swollen



Inflammatory arthritis (IA)- synovial disease Part 1 - joints

- Much less common to have to inject joints as disease is much better controlled
- When to inject
  - Diagnosis – septic, reactive, crystal, steroid
  - Symptomatic effusion limiting movement
- What to inject
  - Large Joints 80mg depomedrone/ Triamcinolone
  - Small joints 40mg or what the joint will take
- How often
  - 3-4 injections per year if clearly beneficial

Which joints – dose

• MCP	10-20 mg
• PIP	10mg
• Wrist	20 mg
• Elbow	40mg
• Shoulder	40mg
• Knees	80mg
• Ankles	40 mg
• Midtarsal	40 mg
• Subtalar	40 mg
• MTP	10-20 mg

Joint injection procedure

- Get the "kit" ready
  - Cleaning solution
  - Syringes 5ml x 3 (lidocaine / Steroid / Aspiration)
  - Needles
    - green x3
    - blue x1

  Swab + plaster
- Procedure
  - Mark joint space with cross
  - Clean the skin
  - At 90° to skin begin to infiltrate lidocaine
  - Resistance will go when in joint
  - Switch to fresh syringe and aspirate
  - Inject Steroid
  - Add more lidocaine
- Move the joint

Complications

- Joint infection 1 / 2500 to 1/10,000
- Skin atrophy
- Tendon rupture (Achilles tendon – Plantar fascia- Rotator cuff)
- Effect on diabetic control
- Bleeding into joint
- No benefit

IA Part 2 Oral or Parenteral

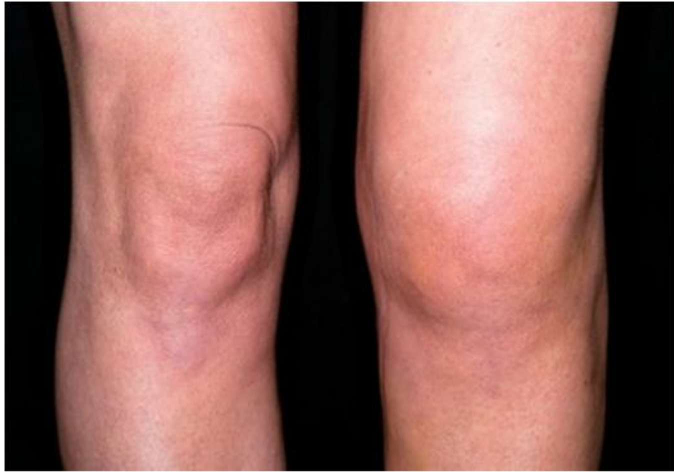
Methyl prednisolone intramuscular – indications

1. Bridging therapy (whilst diagnosis is substantiated)
2. For flare ups
3. Before special events – holidays etc
4. If clear response – is the disease controlled properly

Maximum 4 per 12 months.

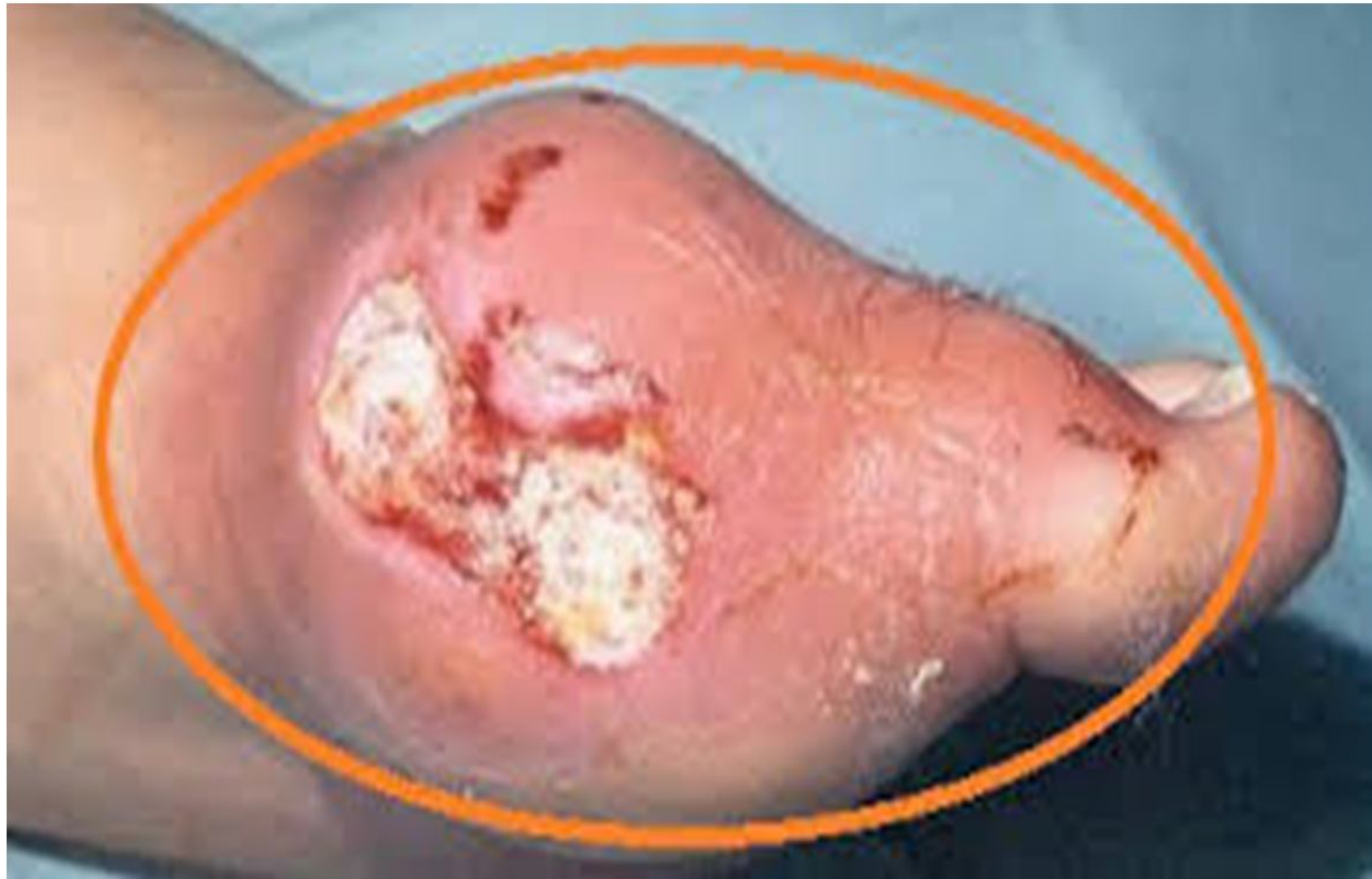
Tend not to use oral prednisolone

Acute Osteoarthritis?



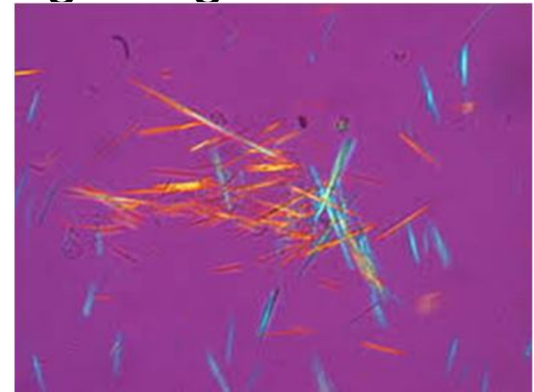
Osteoarthritis
Bone and Cartilage disease

- Steroid injection “a good treatment”
- Best joints 70% chance of benefit
  - Knees
  - Great toe – bunion
  - Thumb cmc
  - PIP
- No clear evidence it increases rate of joint damage
- Avoid prior to surgery for 3 months



Crystal arthritis and steroids

- Gout
  - When commencing allopurinol – increase weekly to 300mg daily – cover with prednisolone
  - Steroids intra-articular when making diagnosis
  - For flares
    - Oral steroids 20-30mg for 3 days or
    - Colchicine 1mg at outset, if not settled in 4-6 hours 500mcg x3 per 24 hours



Giant Cell or Temporal arteritis

Age over 50 with 3 or more of the following;

- New onset headaches especially temporal occipital
- Abrupt onset of visual disturbances, especially transient monocular visual loss
- Jaw (tongue) claudication
- Unexplained fever, anaemia, or other constitutional symptoms and signs
- High erythrocyte sedimentation rate (ESR) and/or high serum C-reactive protein (CRP)
- Preceding history of Polymyalgia Rheumatica

High dose steroid e.g. 500mg IV methylprednisolone daily for 3 doses or oral prednisolone 60mg daily

Colour Doppler Ultrasound v. Temporal artery biopsy

Polymyalgia Rheumatica

Age over 50

- Bilateral morning stiffness (> 30 minutes – roll out of bed) involving at two of the following areas:
  - neck or torso, shoulders or proximal regions of the arms,
  - and hips or proximal aspects of the thighs.
- Raised inflammatory markers and raised liver enzymes
- Constitutional symptoms
- Ultrasound evidence of bursitis
- Association with malignancy

Prompt response of symptoms to low-dose 15mg prednisolone or 120mg depomedrone im

Use of steroids in supporting making diagnosis

- Polymyalgia Rheumatica
  - Steroid sandwich

  1 week no prednisolone

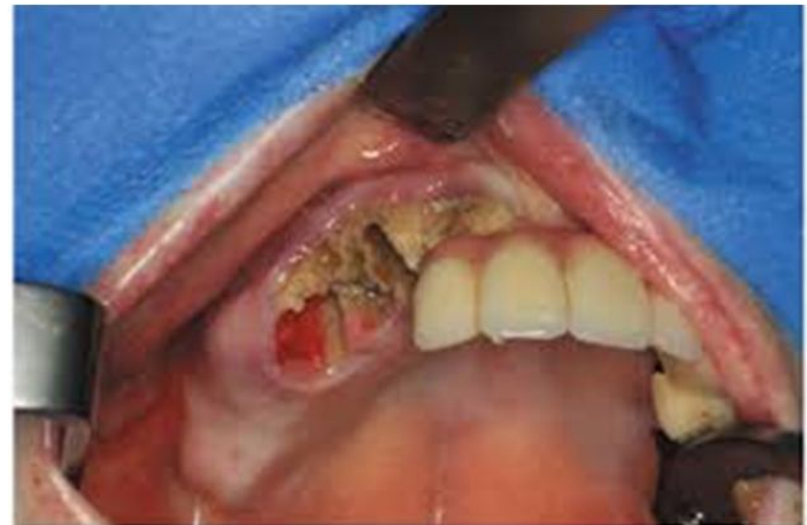
  2 week 20mg prednisolone

  3 week no prednisolone

  If good response reduce to 15mg daily for 1 month then reduce to 5mg. Steroid for 2 years

Bone disease with steroids

- If long term >6 months prednisolone planned, replace Calcium and Vitamin D first
- If Vitamin D is reduced, correct first
- Ensure teeth checked to avoid jaw osteonecrosis
- Consider alendronate



Is there a safe dose of prednisolone?

- >10mg daily needs full management
- 5mg daily or less, check BMD and treat on the degree of osteoporosis (T score >-2.5)
- If 6-10mg make decision on basis of BMD and likely duration of therapy
- Edinburgh calcium calculator

https://www.iofbonehealth.org/calcium-calculator

Any questions