QUESTION 60

An 83yo man has osteoarthritis of the knee. Pain limits his ability to walk more than 300m. Paracetamol gives minimal relief. Examination of the knee reveals varus deformity and a warm effusion. He is commenced on naproxen 500mg twice daily. Four weeks later his knee has not improved and his serum creatinine has risen from 140mmol/L to 350mmol/L [60-120].

In addition to cessation of naproxen, which of the following would be the most appropriate next step in the management of his osteoarthritis of the knee?

A. Sulindac  
B. Rofecoxib  
C. Intra-articular corticosteroids  
D. Intra-articular hyaluronic acid  
E. Total joint replacement

OSTEOPAORTHITIS

Classification

1) Idiopathic  
   a. Localised  
   b. Generalised (3 or more areas)  
2) Secondary  
   a. Trauma  
      i. Acute  
      ii. Chronic  
   b. Congenital  
   c. Metabolic (eg: haemochromatosis)  
   d. Endocrine (eg: acromegaly)  
   e. Calcium deposition diseases  
   f. Neuropathic  
   g. Endemic (eg: Kashin-Beck)  
   h. Other bone/joint diseases (eg: paget’s, RA, avascular necrosis)  
   i. Miscellaneous (including frostbite, haemoglobinopathies)

- Risk factors include age, trauma, race, obesity, endocrine abnormalities etc

Pathology

- Disease of synovial joint affecting cartilage, subchondral bone, synovium, meniscus, ligaments  
- Cartilage thinning, fibrillations, ulcers  
- Remodelling and hyperthrophy of bone – sclerosis  
- Osteophytes  
- Chronic synovitis and thickening of joint capsule can limit movement further  
- Periarticular muscle wasting common

Pathogenesis

- OA develops if the load is too great or the cartilage is inferior  
- Breakdown of cartilage due to metalloproteinases which are stimulated in part by IL-1 and NO

Clinial Features
- Joint pain, worse with movement
- Can have synovitis, effusions (usually not large)
- Crepitus
- Heberden’s nodees (DIP joints)
- Bouchard’s nodes (PIP joints)

**Radiology**

- Joint space narrowing
- Subchondral bone sclerosis
- Subchondral cysts
- Osteophytes
- Joint deformity/subluxation can occur in advanced disease

**Laboratory Features**

- ESR, FBE, EUC, urine normal
- Synovial fluid may have mild leukocytosis

**Treatment**

- Correction of posture
- Wt loss
- Cane on contralateral side can reduce joint contact forces
- Medial taping of patella in patellofemoral OA
- Wedges/orthoses in medial compartment knee OA
- Heat
- Exercise

**Pharmacological Therapy**

- Paracetamol
- NDAIDS
- Intra-articular steroids
  - Can provide relief for up to 4 weeks
  - Repeated injections are less successful
- Hyaluronan
  - Given weekly for 3 to 5 weeks
  - Slower onset but more prolonged (up to 12 weeks) relief of symptoms
- Glucosamine and chondroitin
  - Seems to be benefit over placebo
  - Probably about equivalent to NSAIDS
- Opioids
- Surgery

Given the ARF with naproxen I would be reluctant to try another NSAID so A and B are out. It seems a bit fast to be looking at TKR so E is out. We are then left with 2 reasonable options – intra-articular steroids or hyaluronan. Given the patient has active inflammation and is quite limited by this it is probably more reasonable to give some steroids to provide rapid relief of symptoms. Hyaluronan takes longer to act.

Answer: C