

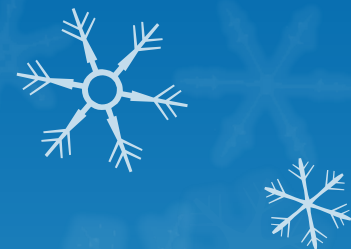


Management of Osteoarthritis in Primary Care

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My Background

- Graduated from Cardiff University 2005
- Completed Specialist training in UHW teaching hospital
 - Masters Medical Law
- Consultant in Royal National Hospital for Rheumatic Diseases
- Currently Consultant in CHS NHS Trust (CUH and Purley Hospitals)
 - Osteoporosis & Metabolic Bone Health
 - Early Arthritis Service
 - MSK USS Clinic
 - GCA management pathway



Contents

- Background and Burden of Disease
- Assessment
- Extra Considerations
- Management in Primary Care
- Q&As



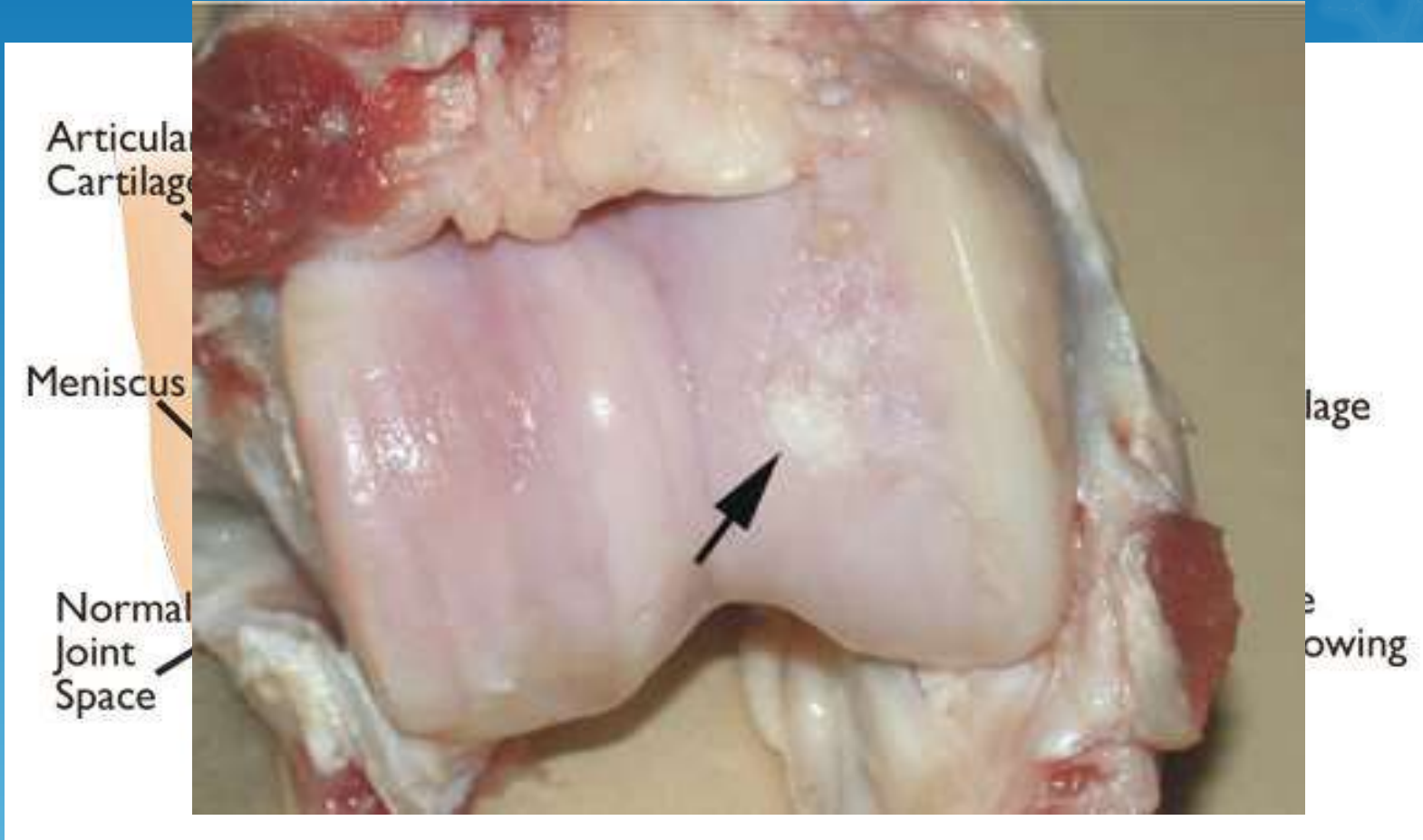
Background & Burden



Background & Burden

- OA is the most common form of arthritis
- Cartilage degradation within joints (avascular structures) leading to architectural changes leading symptoms
 - joint pain, functional limitation and impaired quality of life
- Many names
 - 'Wear and tear'
 - Degenerative disease
 - Mechanical disease
- Among those over 60 years, 40% have OA changes, over 80, 80% have changes





Gradual onset, structural changes in the joint commonly occur without accompanying symptoms in the early stage



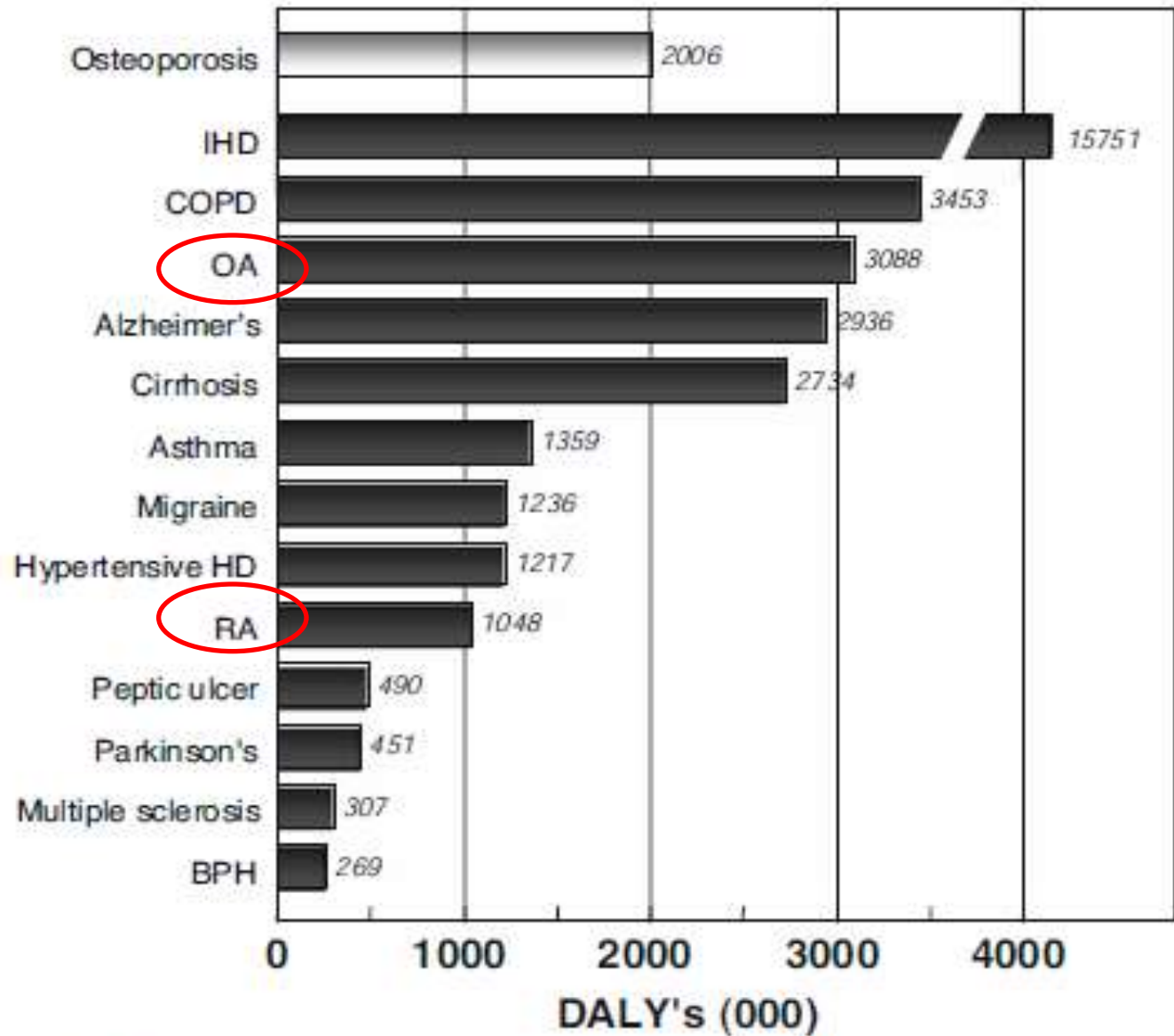
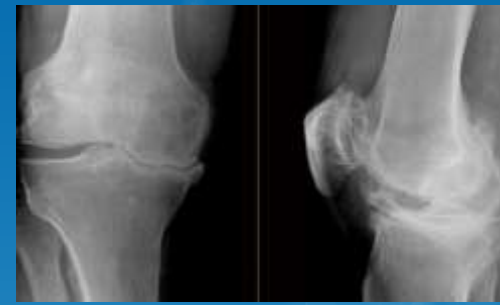


Fig. 1 Burden of diseases estimated as disability-adjusted life-years (DALYs) lost due to a selection of non-communicable diseases in

Risk Factors



- Nodal OA – middle aged women, strong FH (hand, knee, hip - familial estimates 40-60%)
- Age - develops in people aged over 50 (some younger patients can develop OA)
- Post-menopause
- Obesity - Increased weight causes high stresses at the joint surface
- External factors
 - Post injury / joint laxity and instability
 - Post infection (septic / Tb arthritis)
 - Secondary OA (IA)
 - Physically demanding occupations

Primary vs
Secondary



Assessment & Extra Considerations

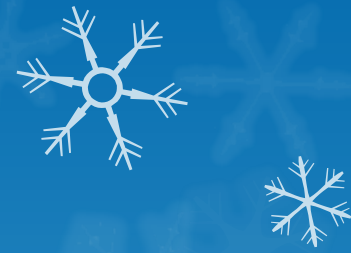


Assessment

- History
 - Key is differentiating from inflammatory joint pain
 - Gaining perspective on severity of symptoms and correlative impact on functional status
- Physical examination
 - Dependent on joint involved
- Investigations



Mechanical vs. Inflammatory Arthritis



4 Ch 1. Approach to the Rheumatology Patient

TABLE 1-1. NONINFLAMMATORY VS INFLAMMATORY DISORDERS

	Noninflammatory disorders (e.g., OA)	Inflammatory disorders (e.g., RA, lupus)
Symptoms		
Morning stiffness	Focal, brief	Significant, prolonged, >1 hr
Constitutional symptoms	Absent	Present
Peak period of discomfort	After prolonged use	After prolonged inactivity
Locking or instability	Implies loose body, internal derangement, or weakness	Uncommon
Symmetry (bilateral)	Occasional	Common
Signs		
Tenderness	Unusual	Over entire exposed joint area
Inflammation (fluid, tenderness, warmth, erythema, synovitis)	Unusual	Common
Multisystem disease	No	Often
Lab abnormalities	No	Often

Adapted from American College of Rheumatology ad hoc Committee on Clinical Guidelines. Guidelines for the initial evaluation of the adult patient with acute musculoskeletal symptoms. *Arthritis Rheum* 1996;39:1.





	Course	Distribution	Symmetry	Extra-articular manifestations
Osteoarthritis	Chronic	Large weight-bearing to small joints Lower extremity joints, proximal and distal interphalangeal joints, first carpometacarpal joint Axial involvement—cervical and lumbar	Possible	None

	Course	Distribution	Symmetry	Extra-articular manifestations
Rheumatoid arthritis	Chronic	Large weight-bearing to small joints Axial involvement—cervical	Yes	Subcutaneous nodules Carpal tunnel syndrome Lungs Eyes



Joint Distribution

- Typical joints affected
 - Hands – 1st CMCJ, PIPJs, DIPJs
 - Shoulder – ACJ
 - C. Spine
 - L. Spine
 - Hips
 - Knees – tricompartment
 - 1st MTPJs

OA tends to spare wrists, elbows, and ankles, unless history of trauma, inflammation, or a metabolic disorder



Physical Examination

- Distinguish between mechanical problems, soft-tissue disease, non-inflammatory & inflammatory joint diseases
- Major objective of the examination is to detect¹:
 - Distribution of joints involved
 - Assess degree of involvement
 - Rule out other MSK pathology
- Watch out for hallmarks of joint inflammation

1. American College of Rheumatology Ad Hoc Committee on Clinical Guidelines. *Arthritis Rheumat* 1996; 39:1–8



Investigations

- Blood tests – not really useful
- X-rays
- Scans
 - Ultrasound
 - MRI
 - CT
- Joint fluid analysis – only if joint swelling is present



Diagnosing OA without imaging

EULAR recommendations

A diagnosis of osteoarthritis of the knee may be made according to these three symptoms and signs, without imaging:

Symptoms

- Persistent knee pain
- Short-lived morning stiffness (less than 30 minutes)
- Functional limitation

Signs

- Crepitus
- Restricted movement
- Bony enlargement



R

RIGHT



• Asymmetrical joint space narrowing

• Periarticular sclerosis

• Osteophytes

• Sub-chondral bone cysts

L





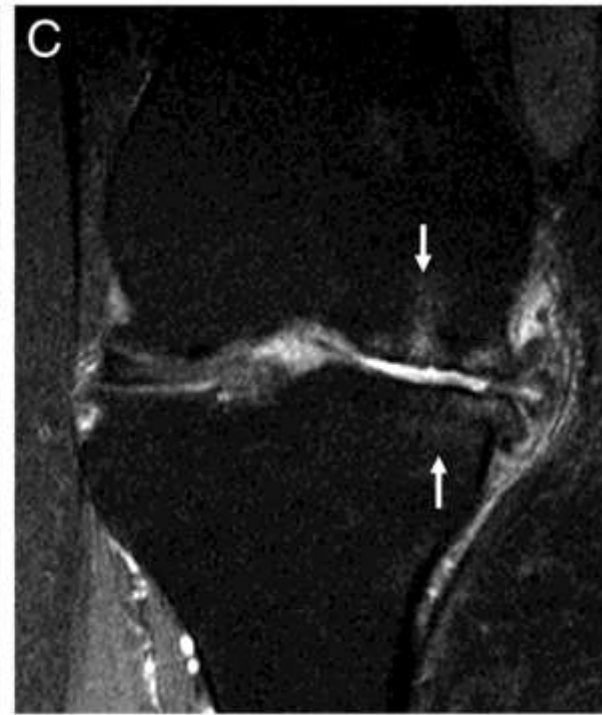
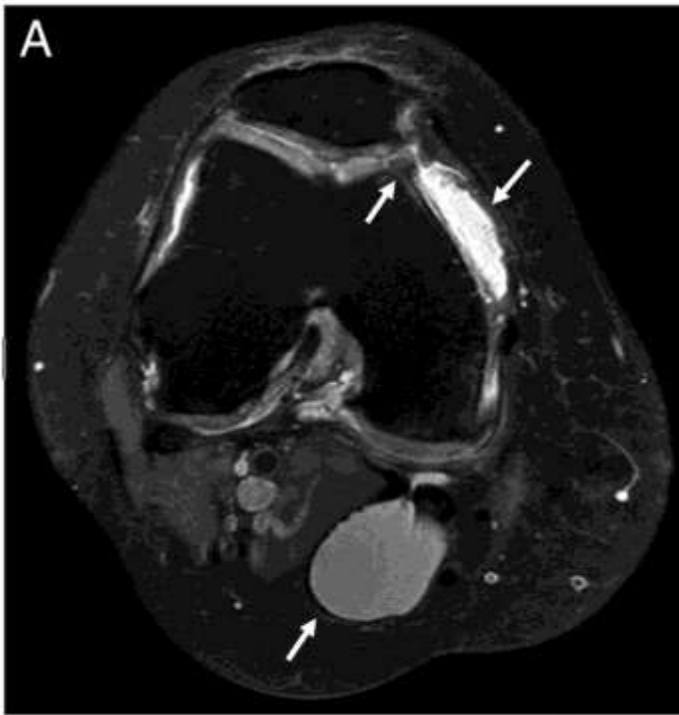






MRI

- Unmatched for non-invasive evaluation of articular cartilage



US in Hand OA

- Prevalence of radiographic hand OA increases from > 60 yrs
 - Erosive OA being more common in women over 70 yrs
- Osteophytes develop early in hand OA^{1,2}
 - Associated with pain and disability^{2,3,4}
 - Predict disease progression (hip / knee OA esp)^{1,5,6}
- US more sensitive than conventional x-ray at detecting osteophytes⁷
 - US Osteophytes were a strong predictor for radiographic OA development 5 years later



The Value of Early Ultrasound-detected
Osteophytes in Hand Osteoarthritis:

PREDICTING THE FUTURE ?



1. Kumm et al; Rheum Intl 2012
2. Van der Kraan et al; Osteo Cartil 2007
3. Kortekaas et al; Ann Rheum Dis 2011
4. Wenham et al; Nat Clin Pract Rheum 2009
5. Wright et al; Arth Rheum 2009
6. Bijsterbosch et al; Ann Rheum Dis 2011

Management in Primary Care



Management of OA

- Primary goal is to control symptoms and to optimise function
 - maximise activity, participation and quality of life
- Medical, social and psychological needs, function, quality of life, occupation, mood, relationships and leisure activities can help in tailoring treatment

**TAILOR TREATMENT
BASED ON
INDIVIDUAL PATIENT
CHARACTERISTICS**

"Alternative"
treatments: acupuncture,
nutraceuticals, and
emerging therapies

NSAIDs

Injections-
corticosteroids
and hyaluronan

Analgesics
(acetaminophen,
tramadol)

**Braces,
orthotics, and
assistive devices**

**Exercise and
Physical Therapy**

**Weight loss
Patient Education**

Surgery

Non-pharmaceutical

- Education about the disease
 - regular telephone conversations with a HCP can result in substantial improvement in pain and functional outcome
- Physical therapy - joint strengthening, increase mobility & balance, pain management
- Weight loss
- Aids - walking aids, orthoses and splints



Pharmaceutical

- Analgesics

- Complementary – tumeric (with black pepper), apple cider vinegar, cod liver oil, cbd
- Paracetamol is an effective first-choice drug
- Topical NSAIDs
- Systemic NSAIDs
- Neuropathics
- Patches
- Opioids



Pharmaceutical

- Chondroprotective agents
 - Glucosamine and chondroitin preparations, but mainly for their analgesic or anti-inflammatory effects
 - DMARDs – mainly for iOA
- Intra-articular
 - Steroids – esp if local inflammation
 - Viscosupplements (hyaluronic acid)
 - Biological – PRP, Lipogems



Surgical

- Osteotomies – MTPJs, Knees
- Unicompartamental knee arthroplasty
 - Most commonly performed on the medial TF compartment in relatively young patients with less severe OA
- Joint arthroplasty
- Total knee arthroplasty



Follow up

- NICE recommend a tailored periodic review of patients with symptomatic OA and information sharing should be a continuous
 - Essential part of the management plan, rather than a single event at presentation
- Strongest predictors of moderate to severe pain and functional limitation 3 years later are baseline measures of:
 - location and severity of pain
 - physical function
 - physical activity
 - general health
 - obesity
 - socioeconomic indicators

GP assessment of OA

MOSAICS model consultation task list

The GP model OA consultation: specific tasks promoted in the GP training workshops ordered by key model OA consultation tasks

Giving the diagnosis

- 1.1 The GP elicits the patient's ideas or worries or concerns about what they think is the matter with them, or the cause of their problem
- 1.2 The GP tells the patient the problem is due to OA, the word OA needs to be used

Explaining the diagnosis

- 2.1 The GP elicits what the patient knows or understands about OA, the word OA needs to be used
- 2.2 The GP tells the patient that OA does not always/inevitably get worse, the word OA does NOT need to be used
- 2.3 The GP tells the patient that OA is treatable: that there are things which can be done to help, the word OA does NOT need to be used

Addressing expectations

- 3.1 The GP elicits the specific expectation(s) the patient has of the GP about the problem
- 3.2 The GP responds to the patient's specific expectations (as noted at 3.1)

Providing analgesia

- 4.1 The GP elicits what the patient has tried or is trying for the problem
- 4.2 The GP advises about, or prescribes for, pain relief

Promoting self-management

- 5.1 The GP elicits what the patient has tried or is trying for the problem, other than for the pain
- 5.2 The GP tells the patient that exercise(s) or physical activity is beneficial for patients with OA or for the patient's problem
- 5.3 The GP tells the patient that losing weight, or not being overweight, is beneficial for patients with OA or for the patient's problem

Promoting self-management support

- 6.1 The GP offers, or gives, the patient general written information on OA
- 6.2 The GP offers, or gives, the patient an appointment with a practice nurse to help with OA

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Quality indicator item	Possible response options	Quality indicator achieved if recorded as ^a
Pain assessment	None Mild Moderate Severe	None OR mild OR moderate OR severe
Functional limitation assessment	None Mild Moderate Severe	None OR mild OR moderate OR severe
Topical NSAID use	Tried full dose Offered full dose Patient declined full dose Not appropriate Unknown	Tried full dose OR offered full dose OR patient declined full dose OR not appropriate
Paracetamol use	Tried full dose Offered full dose Patient declined full dose Not appropriate Unknown	Tried full dose OR offered full dose OR patient declined full dose OR not appropriate
OA information given	Verbal and written ^b Verbal only Not appropriate Not this time	Verbal and written OR verbal only OR not appropriate
Weight loss advice ^c	Verbal and written ^b Verbal only Not appropriate Not this time	Verbal and written OR verbal only OR not appropriate
Exercise advice	Verbal and written ^b Verbal only Not necessary Not appropriate Not this time	Verbal and written OR verbal only OR not necessary or Not appropriate
Consideration of physiotherapy referral	Offered Not necessary Not appropriate Not this time	Offered OR not necessary OR not appropriate

a Indicator not achieved if another of the possible response options used or no entry recorded.

b Response option used for assessment of effect of core NICE recommendations.

c In those with a recorded BMI of ≥ 25 kg/m² in the previous 3 years.



Things to consider in your practice



- Consider organising a trial of telephone appointments with OA patients who have pain that is difficult to manage
- Information sharing should be a continuous part of management
 - Discuss with colleagues how you can optimise this
- Review the appropriate pharmacological treatments for OA and when they should be used

Future developments

◉ Deep

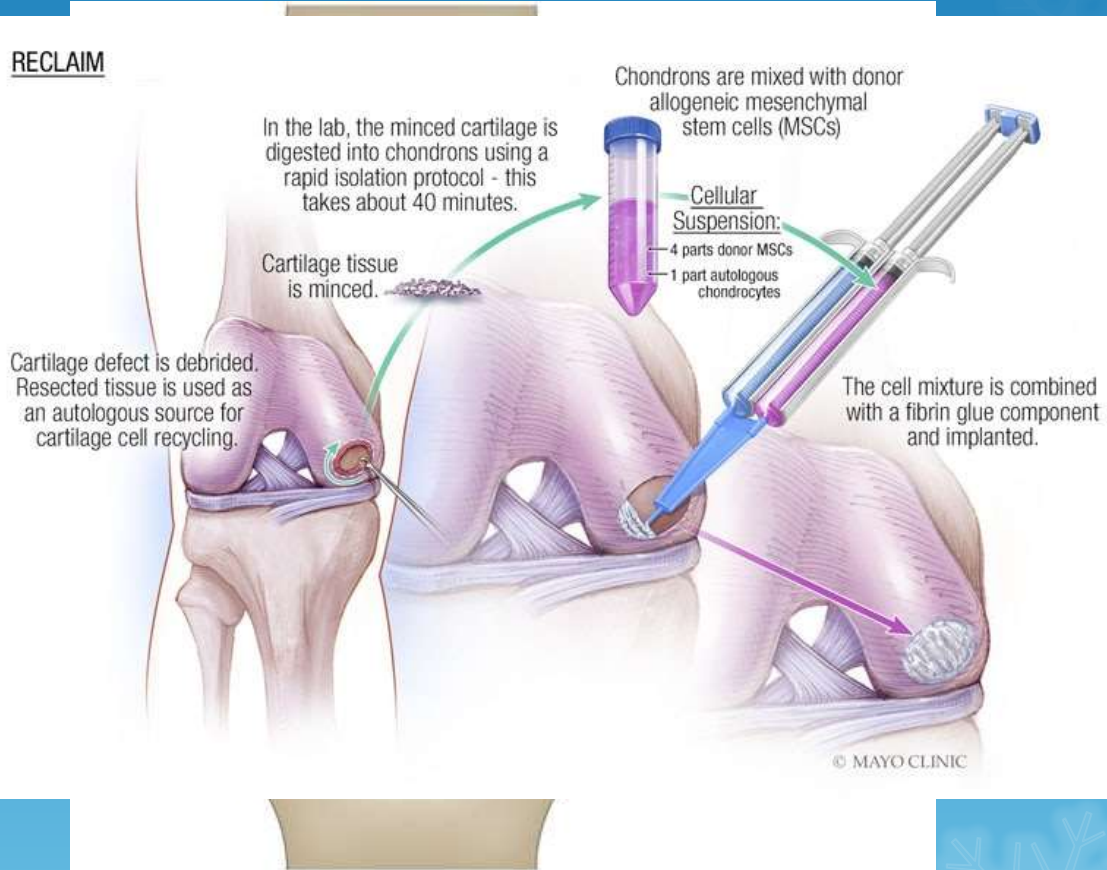
RECLAIM

Effect of Tan Patient Glob Patients Wit A Randomize

Thomas J. Schnitzer, MD, PhD¹

» Author Affiliations | Article

JAMA. 2019;322(1):37-48. doi:



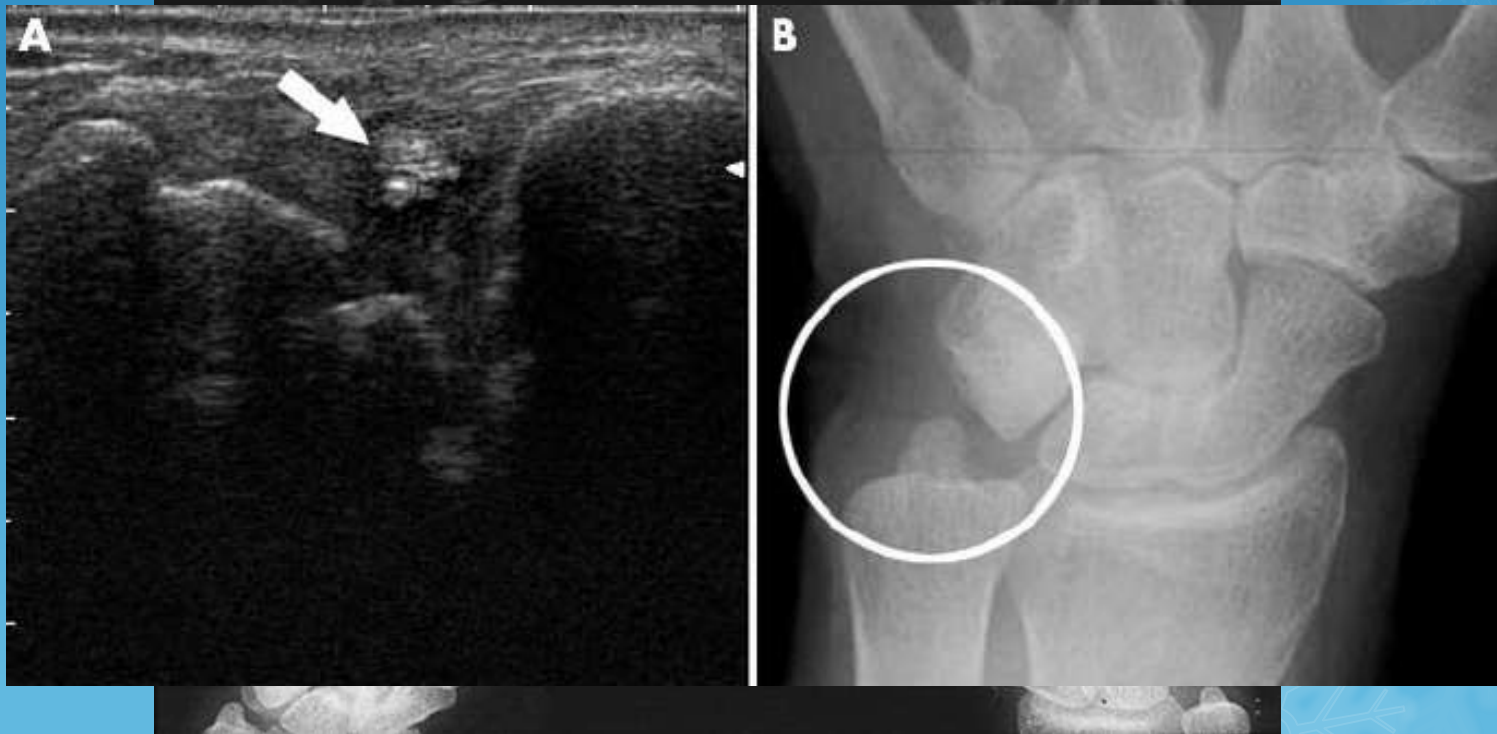
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Case

- 51 year old male with hand pains – Rt MCPJs especially
- Some pains in elbows and ankles
- Pain in evenings after use, better with rest, stiff for 15 minutes in the AMs
- PMH: T2DM, Liver disease, previous alcohol excess
- Social: Building contractor

Case

- Bloods: ESR, CRP normal. Urate 388. FBC, U&Es, eGFR, Bone Profile normal. Vitamin D 66. ALT 48, other LFTs normal. RhF, CCP and ANA negative



Case

- Ferritin: 1,201
- Referred to Gastro
 - HFE gene +ve
 - Started Venesections
- Impression: Haemochromatosis Arthropathy (MCPJ OA, CPPD, T2DM, Liver disease)
- Management: Hand therapy, Analgesia, MCPJ injection

Thank you

