Dr I’m in pain – The Rheumatologist’s Perspective

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Jan 2020
Its (nearly) all about pain!

- The number one symptom in rheumatology clinics is pain.
- fatigue, stiffness, feeling unwell,
- History of fracture,
- low bone density,
- family history of lupus
- Blood test abnormalities
Localised or generalised?

• The pain can be localised

• for example base of the thumb (OA), MCP and wrist joints bilaterally symmetrical due to rheumatoid, or PIP and DIP osteoarthritis, elbows (lateral or medial epicondylitis), low back (deconditioning /overweight in the young, osteoarthritis in the elderly)

• The pain might be across the shoulders and around the buttocks and hips associated with stiffness ( for example in PMR)

• But often the pain is generalised.

• Patients tell me
  “it's everywhere, from top to toe, it's easier to say where it doesn't hurt Dr”
Byrne's rule of rheumatology

• the more generalised the pain the less likely it is to be physical.

• Instead it is more likely to be psychosocial.

• Sometimes it's a presentation of a dyscopic syndrome for example fibromyalgia or chronic fatigue syndrome
FOCUS

• We need to bring focus to the consultation
• In order of severity please tell me where it is worst

• Shoulders > neck >

• Hips – think PMR

• Back neck arms legs i.e. described by region and generalised – associated with other psychosomatic symptoms for example fatigue sleep disturbance and described in overwhelming/dramatic terminology – fibromyalgia
Assessment

- The history will tell me the diagnosis 90% of the time.
- The examination is confirmatory
- Signs of inflammation
  Galen's signs of inflammation Dolor, Calor, Rubor, Tumor, Functio Laeso.
INFLAMMATION

HEAT
REDNESS
SWELLING
PAIN
LOSS OF FUNCTION
Assessment

• Signs of OA

• The blood tests are confirmatory – you won't go far wrong if you regard all those pesky autoantibodies as risk factors for diseases rather than diagnoses.

• Radiographs scans are helpful. They convince the patients I know what I'm talking about. They can see it and understand it a little more. They needn't be afraid of it.
Discrepancy between the objective findings (normal) and the subjective experience of pain.
Tenderness tests: superficial and diffuse tenderness and/or nonanatomic tenderness

Simulation tests: these are based on movements which produce pain, without actually causing that movement, such as axial loading and pain on simulated rotation

Distraction tests: positive tests are rechecked when the patient's attention is distracted, such as a straight leg raise test

Regional disturbances: regional weakness or sensory changes which deviate from accepted neuroanatomy

Overreaction: subjective signs regarding the patient's demeanor and reaction to testing

Waddell, et al. (1980) described five categories of signs:
Eg Overreaction

• the heroic male "war" veteran with flashbacks
  – heroic tales of how much he could do when he was young for example lifting / working in the army – it's never very Olympian but always contrasts with the melodrama of getting on and off the couch together with noisy laboured gasping for special emphasis.

• Overemotional female with tears
What do they mean?

• They do not exclude an organic cause. They are indicative only of symptom magnification or pain behavior.

• They are maladaptive behavioral responses to physical examination and associated with psycho social issues.

• Three or more are positively correlated with high scores for depression, hysteria and hypochondriasis on the Minnesota Multiphasic Personality Inventory.
The 18 fibromyalgia points are a complete waste of time. They are bogus. They are scientifically invalid, – an academic deceit which less experienced physicians used to believe in. They are now disregarded even by the American College of rheumatology who stupidly endorsed them.
Nonpharmacological and pharmacological treatment

- orthotics
- heel cups and arch supports
- walking stick
- mobility scooter
- arch supports in adults
- UCBL's in (heel cups) children
- the walking stick
- The mobility scooter
- The back brace
- the lumbar corset
- the wrist brace
- the neck collar
- the Tubigrip

- alternative medicine
- osteopathy
- chiropractic
- Physiotherapy

- NSAIDs
- analgesics
- codeine
- other opiates
- Antidepressants
- Pregabalin and gabapentin
- Prednisolone

- Pharmacological
- DMARDS
- Methotrexate
- sulphasalazine
- leflunomide
- hydroxychloroquine

- Biologics
- anti-TNF
- anti-B cell
- anti-IL-6
- abatacept

- IL-17 blockers
- I'll 23 blockers

- Bio similars
walking stick

This serves three functions

• assist balance
• offload weight
• a badge of disability
the elbow crutch.

- This allows much more sympathy induced limping.
The mobility scooter

- frail patients
- need to have joint replacements
- defined neurological pathology
The back brace
Please say that again.
This slim fit young lady is not the type who needs a corset!
Biodynamics of Obesity
Wrist Splints

- Helpful
- Supportive
- Sometimes a badge
- Beware contractures
Avoid contractures – don’t use a pillow
Kally Body Pillow – Heathered Grey

£44.99

Colour
Heathered Grey

Simply the best orthopaedic body pillow for neck & back pain, pregnancy, recovery support and restless sleepers

Ergonomically designed by experts to help you enjoy longer periods of deep, uninterrupted sleep in superior comfort. Our sumptuous body pillow provides crucial support for your back, neck, and spine, while the delicate and breathable 100% Cotton Jersey pillow cover helps you stay cool (included free). Totally redefine your sleep with the Kally Body Pillow.

Tick the box to add an additional pillow case for £9.99 (usual price £14.99)
The Neck Collar

- ideal for those patients who are frail with intractable neck pain
- Beware the complication of a contracted stiff neck
We need to straighten out in bed at night
Tubigrip

- This is a useful form of compression
- Useful in chronic effusions
TRICK or TREATMENT?
Alternative medicine on trial
SIMON SINGH & EDZARD ERNST

'A definitive – if controversial – guide to what works, and what doesn't. It makes indispensable, if sometimes alarming, reading
Daily Mail
Osteopathy

- Hands on and often helpful
- Releasing stiff joints
An Ignoble Laureate

• Donald Unger, a doctor who received the Medicine Prize for cracking the knuckles of his left hand -- but not his right -- for sixty years to see if the habit contributes to arthritis (it didn't).
About the Ig Nobel Prizes

The Ig Nobel Prizes honor achievements that make people LAUGH, and then THINK. The prizes are intended to celebrate the unusual, honor the imaginative — and spur people's interest in science, medicine, and technology.

Every September, in a gala ceremony in Harvard's Sanders Theatre, 1100 splendidly eccentric spectators watch the new winners step forward to accept their Prizes. These are physically handed out by genuine (genuinely bemused) Nobel Laureates. Thousands more, around the world, watch the live broadcast online.

Next ceremony: The 30th First Annual Ig Nobel Prize ceremony will happen on September 17, 2020. Tickets go on sale in July, exclusively from the Harvard Box Office.

List of Ig Nobel Prize winners
Archive page—videos and details of past ceremonies and operas

“The Stinker”, the official mascot of the Ig Nobel Prizes.
physiotherapy

- build up the muscles, build up the confidence, emphasise the importance of exercise – this improves confidence, independence, mobility, dexterity,
Nonpharmacological and pharmacological treatment

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- I'll 23 blockers
- Bio similars
Nonsteroidal anti-inflammatory drugs

- There are 24 listed in the BNF
- ACECLOFENAC
- ASPIRIN
- CELECOXIB
- DEXIBUPROFEN
- DEXKETOPROFEN
- DICLOFENAC POTASSIUM
- DICLOFENAC SODIUM
- ETODOLAC
- ETORICOXIB
- FLURBIPROFEN
- IBUPROFEN
- INDOMETACIN
- KETOPROFEN
- KETOROLAC TROMETAMOL
- MEFENAMIC ACID
- MELOXICAM
- NABUMETONE
- NAPROXEN
- PARECOXIB
- PIROXICAM
- SULINDAC
- TENOXICAM
- TIAPROFENIC ACID
- TOLFENAMIC ACID
Relative COX-1 and COX-2 selectivity of NSAIDs

The diagram shows a log-log plot comparing the cyclooxygenase-1 (COX-1) and cyclooxygenase-2 (COX-2) IC50 values (micromolar) for various NSAIDs. The x-axis represents COX-1 IC50, while the y-axis represents COX-2 IC50. Points are labeled with the names of the NSAIDs, indicating their selectivity profile.
Concurrent PPI? Yes if Risk Factors

- a prior history of a gastrointestinal event (ulcer, hemorrhage),
- age >60,
- a high dose of an NSAID,
- the concurrent use of glucocorticoids,
- concurrent use of antiplatelet agents (eg, aspirin, clopidogrel) and anticoagulants (eg, vitamin K antagonists, heparin, direct thrombin inhibitors, and direct factor Xa inhibitors).
- Chronic, as opposed to short-term, use;
- untreated Helicobacter pylori infection;
- use of selective serotonin reuptake inhibitors (SSRI)
CVS Risk (Coxib and traditional NSAID Trialists' [CNT] Collaboration)

- The analysis (utilized data from over 300,000 individuals in over 600 trials).
- Major cardiovascular events (a composite of nonfatal MI, nonfatal stroke, or vascular death) were increased compared with placebo for high-dose diclofenac (adjusted rate ratio [RR] 1.41, 95% CI 1.12-1.78) and for the coxibs (RR 1.37, 95% CI 1.14-1.66), largely due to increases in major coronary heart disease events. A similar, but statistically nonsignificant, increase in risk was observed with high-dose ibuprofen compared with placebo (RR 1.44, 95% CI 0.89-2.33). The use of high-dose naproxen did not result in an increase in major cardiovascular events (RR 0.93, 95% CI 0.69-1.27).
For patients at low cardiovascular risk (baseline risk of 0.5 percent per year), the use of diclofenac, ibuprofen, or a coxib resulted in an excess of two events per 1000 persons per year; naproxen was not associated with any excess risk.
BLOOD PRESSURE

• The average rise in blood pressure is 2-3 mmHg but varies considerably.
• limit their sodium intake (because NSAIDs increase blood pressure in part by reducing sodium excretion),
• monitor their blood pressure frequently (eg, with home monitoring),
• monitor their renal function after NSAIDs are initiated and with any increase in NSAID dose
topical nsaid

- DICLOFENAC SODIUM
- FELBINAC
- PIROXICAM
- KETOPROFEN
- IBUPROFEN
• A topical NSAID or topical capsaicin 0.025% (Apply 4 times a day, apply sparingly, not more often than every 4 hours)

• Can be considered as an adjunctive treatment in knee or hand osteoarthritis
Not recommended

- Glucosamine and rubefacients
- Hyaluronic acid and its derivatives
Effect on the lower bowel

• Erosions, ulcers, strictures, perforation,

• pathognomonic diaphragms
COLORECTAL CANCER

• Unclear
H Pylori

- If known - eradicate
MALIGNANCY

• NSAIDs may be associated with a decreased risk of colorectal, prostate, and breast cancer,
• One study has suggested an increased risk of renal cell cancer
Pulmonary reactions are uncommon

- pulmonary infiltrates with eosinophilia
- Bronchospasm can result from the condition "aspirin-exacerbated respiratory disease" (AERD), which appears related to cyclooxygenase (COX)-1 inhibition. COX-2 selective inhibitors appear to have little risk of precipitating bronchospasm in patients with aspirin-induced asthma
Renal effects

• acute kidney injury (AKI); (Risk 2x) usually self limiting within one week of stopping NSAID.
• electrolyte and acid-base disorders
• acute interstitial nephritis (AIN), which may be accompanied by the nephrotic syndrome; and papillary necrosis.
Analgesics

- paracetamol
- Codeine
- Co-codamol 8/500, 15/500, 30/500
“not strong enough”

- I do not bother with tramadol, oxycodone, fentanyl, tapentadol, pethidine et cetera
Barking up the wrong tree

• They don't need more opiates.
• They might need psychological support, amitriptyline, antidepressants, a two-week trial of steroids.
Byrne's rule of rheumatology

• Avoid opiates.
• They don't work in nonfracture musculoskeletal pain.
• The only time I use them in this new cut pain of an osteoporotic fracture and then only for a maximum of three months.
• Pain beyond this is due to the altered bio mechanics of the newly kyphotic back.
Osteoporotic fracture

- Occasionally I will recommend a Butrans patch. The manufacturer recommends starting at the lowest strength i.e. 5 µg per hour. This is equivalent to 9 – 14 mg of oral morphine per day. The 10 µg per hour patch is twice this.
Short term
Not long term and indiscriminate
• US 115 people die every day from opioid related drug overdoses.
Antidepressants

- Amitriptyline
- Sertraline
- Citalopram
- Duloxetine
Gabapentin & Pregabalin

- Start low and go slow
Prednisolone

- 60 mg in temporal arteritis weaning to 40 mg after two weeks then 20 mg after another two weeks. Then 15, 15/10, 10, 10/5, five 5, 4, 3, 2, 1.
- 20 mg in PMR
Prednisolone & RA

• Rheumatoid it depends. Baseline 5 mg. Rheumatoid flare
  – double the dose for one to 2 weeks.
• Occasionally treble the dose 15 mg per week for one week then 10 mg per day for one week then 5 mg per day.
• Repeated flares are an indication of poorly controlled baseline disease therefore disease modifying therapy needs to be reconsidered.
• If CRP and ESR are okay and examination fairly unremarkable, and response to steroids not good enough then is the patient coping?

• Rheumatoid patients are vulnerable to chronic widespread pain and dyscopia. Rheumatoid arthritis is not does not make patients immune to fibromyalgia.
OA

- Pseudogout clinically
- Chondrocalcinosis radiographically
- positively birefringent calcium pyrophosphate crystals
The patient who cannot weight bear.

- fracture, gout, septic arthritis
- x-rays and joint aspiration are always necessary. Refer to the orthopaedic surgeons immediately.
- Possible cortisone injection if the physician / surgeon is confident and send the fluid to microbiology for microscopy culture and sensitivity and send to histopathology for crystal analysis.
Methotrexate

• if they are coughing or short of breath then stop it for a trial period.
• Request a chest x-ray.
• If they are very short of breath give them steroids and let us know.
• Blood test abnormalities are rare and often trivial.
• It is a superb drug.
SZP and Lef

• Salazopyrin EN alias sulphasalazine
• second best choice.
• Can cause blood abnormalities and rashes.
• Start low and go slow.
• Blood monitoring more essential.

• Leflunomide 10 mg per day occ 20mg /day
Hydroxychloroquine

• possibly a little useful in some lupus. Not good evidence for Sjogren's. Mild benefit in rheumatoid.

• Retinal toxicity more of a problem then we realised now due to better imaging of it with optical coherence tomography provided by ultrasound.

• There this has led to a revision of monitoring guidance. Baseline OCT, Humphrey visual fields and fluorescein angiography baseline followed by annual monitoring after five years.
Biologics

- Anti TNF
- Anti B cell
- Anti T cell
- Anti IL6
- Anti IL17, IL23
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