



Dr Chris Milne

Sports Physician
Anglesea Clinic
Hamilton

Saturday, August 10, 2019

(Room 5)

16:30 - 17:30 WS #127: My Approach to Managing Back Pain in Primary Care
17:35 - 18:30 WS #137: My Approach to Managing Back Pain in Primary Care
(Repeated)

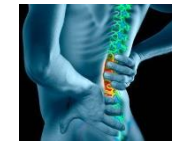
My approach to Low Back Pain

Dr Chris Milne

Sports and Exercise Physician

Hamilton





Clinical Approach - History

1. Mechanism of Injury

2. Current Symptoms

a. Pain

- Sitting
- Standing
- Lying
- Walking

- =Discogenic
- =Facet Joint
- =Inflammatory
- =Spinal Stenosis

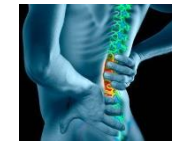


b. ?Root Impingement

- Sciatica (leg worse than back)
- Cough Impulse
- Sensory Symptoms
- Motor Symptoms
- Sphincter Disturbance

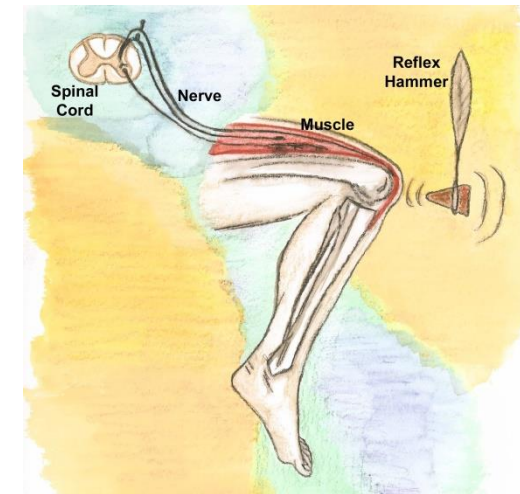
c. Response to treatment so far

3. Previous episodes



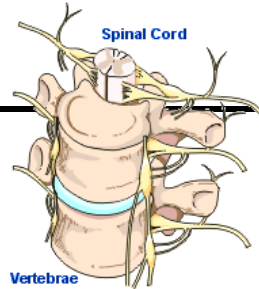
Clinical Approach - Examination

1. Standing
 - Posture, resting deformity
 - Flexion/Extension
 - Side Bending
2. Sitting
 - Rotation
 - Slump test
3. Lying Supine
 - Rock hips
 - SLR
 - Power/Sensation
 - Stress SI joints
4. Lying Prone
 - Local tenderness
5. Sitting
 - Knee reflexes
6. Kneeling on chair
 - Ankle reflexes

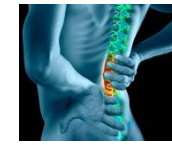




Root Impingement Signs



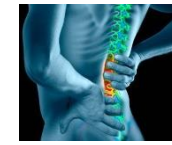
	L4	L5	S1
Weakness	-Ankle Inversion	-Ankle and toe extension	-Ankle and toe flexion
Sensory Alteration	-Medial Shin	-Lateral shin -Medial border foot	-Lateral border foot -Plantar surface foot
Reflexes	-Knee jerk decreased	-Normal	-Ankle jerk decreased



Investigations

- **Organ Imaging** – Limited correlation between structural abnormality and clinical picture
- **Xrays** – Lumbosacral spine views 60 times radiation dose of CXR
 - Useful in:
 - » high energy injury
 - » Low bone density
 - » Inflammatory backache? SI involvement
- **Bone Scan** – Rarely Indicated
 - Useful in:
 - » Cricketer with extension related backache
 - » History of Ca ? Bony metastases
 - » Fever, weight loss, ? tumour, infection.

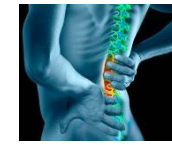




Investigation cont...

- CT Scan – Best Investigation for bone and joint problems
- MRI Scan – Best investigation for disc pathology – correlation with surgical findings;
 - 90%-MRI, 77%-CT
 - Good for bone and soft tissue
 - Shows signs of disc degeneration – darkening on T2 weighted image
- Jensen (NEJM, 1994)
 - 98 symptomatic people, av age 42 yrs
 - Only 36% had normal spinal MRI
 - 52% had disc bulge
 - 37% had a disc protrusion
 - 1% disc extrusion/prolapse





Blood Tests

- Useful for inflammatory back pain, occasionally for tumour or infection
- First Line
 - CBC
 - ESR
 - C reactive protein
- Second Line
 - HLA B27
 - May have value in Intermediate situations





Mechanical vs Inflammatory Back pain

Mechanical	Inflammatory
Acute onset, any age	Gradual onset, below age 40
Worse with activity	Worse with rest
Night pain minimal	Night pain prominent
Morning stiffness mild	Morning stiffness prominent
SI involvement rare	SI involvement common
	Also:
	Peripheral joint involvement
	Iritis, skin rash, colitis, urethritis
	Family history common



Root Impingement and Spinal Stenosis

Root Impingement	Spinal Stenosis
Sciatica – buttock or leg	Pain on walking – claudication type
Cough Impulse	Better on walking uphill
Sensory symptoms and signs	Relieved by bending forward
Power loss	May have signs of root impingement
Positive slump test	
Reflex asymmetry	

Red Flags



Clinical Suspicion

1. ?Fracture

- high energy injury
- low bone density

2. ?Tumour/Infection

History of Cancer

Unwell – fever, chills, weight loss

Severe night pain

Risk Factors for spinal infection-

(Bacterial infection,
immunosuppression, TB)

Management

Xray

Consider referral

Xray

Bone Scan

Blood tests

Referral

Red Flags



Clinical Suspicion

3. ?Cauda Equina Syndrome

Inability to pass urine

Saddle anaesthesia

Loss of anal sphincter tone

Progressive weakness

Sensory level

Management

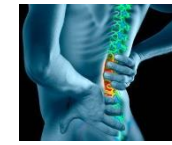
Urgent referral same day

Yellow flags

- Psychosocial issues- past history of low back pain, slow to resolve
- Concurrent depression or anxiety, tendency to catastrophise
- Concurrent conflicts
 - work
 - home
 - other

At the end of clinical evaluation, should be able to arrive at a broad diagnostic category;

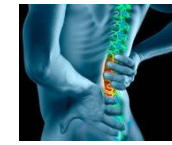
1. Simple Mechanical
2. Complex Mechanical eg: risk of fracture, spondylolisthesis, significant degeneration
3. Root Impingement
4. Cauda Equina syndrome
5. Inflammatory
6. Serious associated disease – eg cancer, infection
7. Significant non-organic component



Subsets of simple mechanical

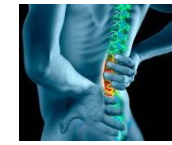
- Flexion related, likely discogenic
- Extension related
middle aged/older patient- facet joint
teenage/young adult- bony overload of pars
interarticularis
- Single leg loading related- likely SI joint related

Management of Mechanical Back Pain

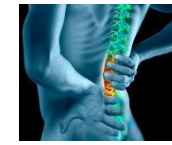


1. Reassurance – nothing dangerous, expect recovery
2. Provide Analgesia
 1. Simple analgesics eg paracetamol, codeine
 2. NSAIDS – nonspecific or Cox 2 inhibitors
 3. Stronger analgesics – eg Tramadol
 4. Muscle relaxants in selected cases NB drowsiness and dependence
3. Manual Therapy
4. Short term bed rest, if at all (max 2-3 days)
5. Continue normal ADL
 1. Work – light duties
 2. Modify leisure activities

Who to refer and when

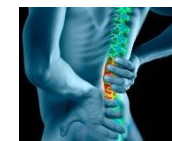


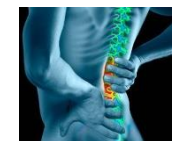
- **Simple Mechanical**- Manual Therapist @ first consult
- **Complex Mechanical** – Manual Therapist, ?do Xray first
- **Root Impingement** – manual therapist but review in 2-3 weeks if not settling the ?epidural via specialist
- **Cauda Equina syndrome** – orthopaedic specialist same day.
- **Inflammatory** – bloods + ? Xray, trial of NSAID, ?later rheumatologist
- **Serious associated disease** – relevant organ system specialist when initial tests results known
- **Significant non-organic component** – minimise investigations, involve psychologist or psychiatrist at a stage you consider appropriate

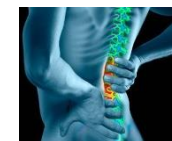


Summary

- Make a diagnosis, based on history and examination
- Order imaging selectively
- Refer to a manual therapist at the first consultation
- Manage radicular pain actively
- Recognise cauda equina syndrome as a medical emergency









Any questions???

