Pondering the Painful Back

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What can I do about a patient with back pain?

Most adults experience at least one episode of acute low back pain and many seek medical attention.[1,2] Yet physicians are often surprisingly ill-equipped to deal with the problem. Medical training focuses on making a disease-specific diagnosis to determine definitive treatment,[3] but for the overwhelming majority, back pain is not a disease and a specific pain source cannot be identified. Managing ordinary back pain does not fit the medical paradigm.

Patients with back complaints want rapid pain relief and unequivocal reassurance. In the medical model, the family physician's inability to obtain a pathoanatomic diagnosis delays the therapeutic response. Instead, it initiates a fruitless search that wastes resources and frightens the patient.

How can I identify the causes of the back pain?

In most cases you can't, but you don't need to—once the red flags of major trauma, systemic disease and malignancy have been eliminated through a careful history and physical examination, the remaining patient population (over 90%) can be treated symptomatically. Plain X-rays add very little and are discouraged in the first six to eight weeks of an attack.[4] Computed tomography and magnetic resonance imaging have no place in the initial workup and should be reserved for patients whose presentation generates a high level of suspicion of serious pathology or those for whom surgery is a legitimate option.

Dan's Ordeal

- Dan, 46, a chartered accountant, is suffering his third episode of severe low back pain in the past five years
- He has given up tennis and golf and spends much of his time resting on the couch
- The pain is most intense on the left side of the low back
- Pain radiates to the left ankle
- Sitting or bending forward aggravates the symptoms
- Lying prone on his elbows produces brief periods of complete pain relief
- There are no irritative signs or conduction loss

Key history points

- Where exactly is the worst pain: Back or leg?
- Is the pain constant or intermittent?
- What movements or positions aggravate/relieve the pain?
- Is this attack similar to any previous episodes?
- Has the pain affected his normal daily routine?

Key examination points

- Observation: Posture, asymmetry
- Movements: Flexion, extension
- Irritative signs: Straight-leg raising
- Conduction loss: L5 or S1
- Upper motor findings: Plantar response
- Low sacral findings: Saddle sensation

Treatment progression

- Education
- Self-administered physical modalities
- Specific pain-relieving manoeuvres
- Activity restoration
- Prescription medication
- Specialist referral

What does Dan need? For the answer, go to page 59.

What do I treat if I can't diagnose it?

A reasonable start is to recognize a predictable mechanical syndrome.[5] The history is critical and the key elements are the location of the dominant pain and whether it is constant or intermittent. Pain felt most acutely in the low back or buttocks above the gluteal folds has a structural basis and is not the result of direct root compromise. Truly intermittent pain, even if the periods of complete pain relief are short lived, suggests a mechanical origin and eliminates almost all of the more menacing possibilities.

Reassure patients with intermittent, back-dominant pain that the symptoms are arising from a benign physical source and that they should respond to non-operative mechanical therapy.

Leg-dominant pain occurs much less frequently. Constant leg-dominant pain above or below the knee (sciatica) usually results from a herniated disc pressing on and chemically irritating a nerve root. Intermittent leg-dominant pain brought on by activity and relieved by resting in flexion is typical of neurogenic claudication, commonly associated with spinal stenosis.

What if I identify a mechanical pattern?

Base your treatment on the aggravating and relieving factors. Many patients discover movements or positions that help, but they rarely use them effectively. Develop a clearly defined routine incorporating frequent periods of pain-reducing movements

What Dan Needs

- Reassurance that the amount of pain does not indicate the gravity of the situation; hurt does not mean harm
- Counterirritants, such as ice or heat
- Frequent scheduled sessions of repeated passive prone extension—because lying on his stomach relieves pain
- Maintenance of lumbar lordosis
- Re-introduction of normal activities, including some golf and tennis
- Prescription analgesics, only if needed to preserve function

or rest positions throughout the day. This sounds simple, but convincing a patient with severe back pain to get out of bed, move around and stay with the program is challenging. As the symptoms subside, gradually increase the intensity of the routine. Slowly incorporate normal daily activities and promote resumption of a regular lifestyle.

Sciatica does not respond to movement. Schedule repeated short rest periods in any position that diminishes the leg pain.

Neurogenic claudication can be partially controlled with improved posture to reduce lumbar lordosis—a gradual change that requires developing abdominal muscle strength.

What if mechanical treatment isn't enough?

Reassurance and specific pain-control manoeuvers should be part of every routine. Mechanical approaches are sufficient for most patients, but other options exist.[6] Self-administrated modalities, like ice or heat, can give excellent short-term relief, particularly in the early stages of treatment. Medication should not be the first line of therapy. Consider over-the-counter analgesics or non-steroidal anti-inflammatory drugs when the physical approach is insufficient and pain still impedes functional recovery. Narcotics are rarely required and should be used sparingly and briefly.

Referral to a spine specialist is appropriate for patients suspected of having a significant underlying medical problem, who require surgery or who develop pain-focused illness behaviour.[7]

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