

## 下背痛的治療

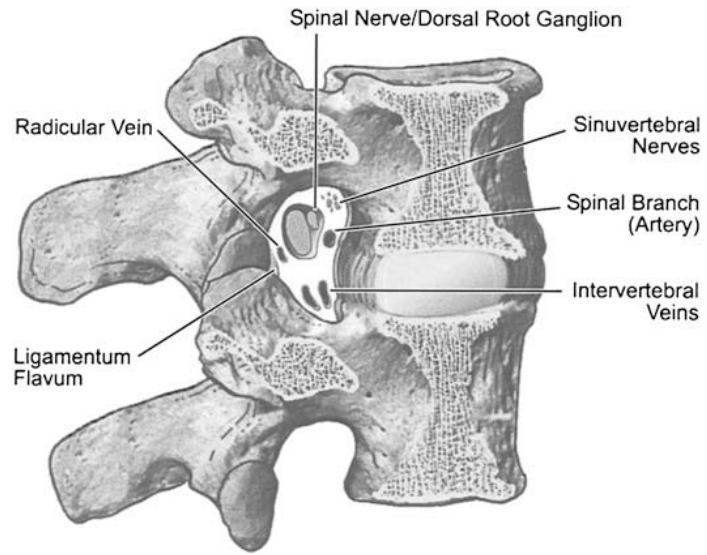
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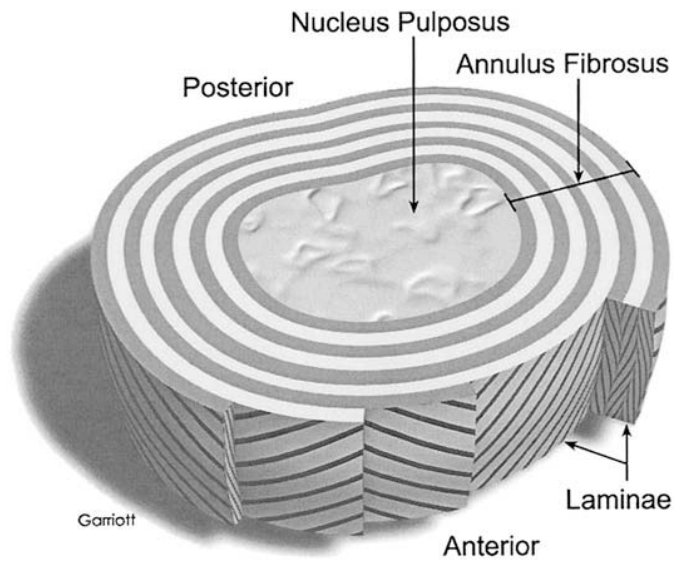
## 下背痛

- 背痛：骨科及家醫科常見疾病。
- Acute back pain : self limited
- Chronic back pain : 疼痛持續3個月

# 脊椎構造



# 椎間盤構造



## 下背痛

In USA 2008

- Patient with chronic back pain will see a family physician (65.0%)  
orthopedists (55.9%)  
physical therapists (50.5%)  
chiropractors ( 46.7%)
- Estimate cost: 12.2 to 90.6 billion

## 下背痛評估

- 依病史初步分類：
  - Non-specific low back pain
  - Back pain with radiculopathy or spinal stenosis
  - Back pain referred from a nonspinal source
  - Back pain with another specific spinal cause

## 下背痛評估

Medical history: osteoporosis ;  
osteoarthritis ; cancer

2. Physical exam: neurological exam
3. Lab: ESR, CBC, CRP; urine routine  
Ca, Alk-p

## 下背痛評估

Imaging : X-ray had limited utility in  
most patient with chronic back pain  
MRI (CT) for patient with serious or  
rapid progressed disease  
Psychosocial issue

## **Red flags**

- **Age older than 50 years** Fever; chills; recent urinary tract or skin infection; penetrating wound near spine
- **Unrelenting night pain or pain at rest**
- **Progressive motor or sensory deficit**
- **Saddle anesthesia; bilateral sciatica or leg weakness; difficulty urinating; fecal incontinence**
- **Unexplained weight loss**
- **History of cancer or strong suspicion for current cancer**
- **History of osteoporosis**
- **Immunosuppression** Chronic oral steroid use
- **Intravenous drug use** Substance abuse
- **Failure to improve after six weeks of conservative therapy**

## **Yellow flags**

- **Affect** - Anxiety; depression; feeling of uselessness; irritability
- **Behavior** - Adverse coping strategies; impaired sleep because of pain; passive attitude about treatment; withdrawal from activities
- **Beliefs** - Thinks “the worst” or that pain is harmful or uncontrollable, or that it needs to be eliminated (before returning to activities or work)
- **Social** - History of sexual abuse, physical abuse, or substance abuse; lack of support; older age; overprotective family
- **Work** -Expectation that pain will increase with work and activity; pending litigation; problems with worker’s compensation or claims; poor job satisfaction; unsupportive work environment

## 慢性下背痛治療

- 一般原則：

1. Goals of treatment: to improving pain & function (rather than to cure)
2. Unrealistic expectation – complete pain relief & return to previous level of activity

## 慢性下背痛治療

- 設定治療目標：

documenting goals & expectations

- 避免過度期望：

large gap between patient desire & minimal percentage improvement make a treatment worthwhile

## 慢性下背痛治療

- 治療步驟：

Maximal dose of NSAID & scanol

Adjunctive medications

3. Nonpharmacologic therapy

4. Epidural steroid injection or surgical intervention

## 藥物治療

- Acetaminophen: first-line; high safety profile

## 藥物治療

- NSAIDs :  
provide similar analgesia as acetaminophen, but have significant gastrointestinal and renovascular adverse effects.  
if one class fails, medications from other classes can be tried before abandoning them altogether  
Tramadol (Ultram), opioids, and other adjunctive medications may benefit some patients who do not respond to NSAIDs.

## 藥物治療

- Tramadol  
weak opioid and serotonin-norepinephrine reuptake inhibitor (SNRI) activity.  
short-term improvements in pain and function, but long-term data are lacking.  
not be used in patients recovering from narcotic addiction.  
Adverse effects include drowsiness, constipation, and nausea.



## 藥物治療

- muscle relaxants  
provide similar short-term improvements in pain and function  
no evidence to support their long-term use for chronic low back pain.  
Sedation is a common adverse effect, and chronic use of benzodiazepines and carisoprodol (Soma) carries the risk of dependency

## 藥物治療

- herbal medications  
effective in short-term trials, but lack long-term safety data.  
Harpagophytum procumbens (devil's claw) , Salix alba (white willow bark, a source of salicylic acid), Capsicum frutescens (cayenne) plaster  
devil's claw and white willow bark appear to be as effective as NSAIDs

## 藥物治療

- Opioids  
development of tolerance, hyperalgesia (enhanced pain response to noxious stimuli), and allodynia (enhanced pain response to innocuous stimuli).  
The combination of tolerance and hyperalgesia can decrease opioid effectiveness over time.  
One of the challenges of treating chronic low back pain is differentiating among tolerance, opioid-induced hyperalgesia, and disease progression.  
Hyperalgesia involves increasing pain despite increasing opioid treatment  
In this situation, the dosage of opioids should be decreased, or patients should be weaned off the medication altogether.

## 藥物治療

- SNRIs- Selective serotonin reuptake inhibitors, and antiepileptic medications have not been shown to help patients with chronic low back pain.
- Tricyclic antidepressants, is a useful addition to analgesic therapy.
- Gabapentin (Neurontin ) may provide short-term relief in patients with radiculopathy

## 非藥物治療

- 45% of patients with low back pain see a chiropractor,
- 24% use massage,
- 11% get Acupuncture .
- 7% try meditation.
- Acupuncture provides short-term relief of chronic LBP

## 非藥物治療

- Exercise therapy: stabilized abdomen & back muscle
- Behavior therapy is as effective as exercise therapy for short-term relief of chronic LBP
- rehabilitation programs
- Acupuncture massage and pressure point massage are mildly helpful

## 非藥物治療

- Spinal manipulation provides modest short- and long-term relief of back pain,
- therapeutically directed style of yoga (Viniyoga) may provide some relief of chronic back pain.

## 非藥物治療

- Back schools, (?)
- low-level laser therapy, lumbar supports, prolotherapy, (?)
- short wave diathermy, traction, (?)
- transcutaneous electrical nerve stimulation, ultrasound (?)

## **Epidural steroid injection**

- Epidural steroid injections may help patients with radicular symptoms.
- there is no evidence to support the use of epidural steroid injections in patients without radicular symptoms
- injections are less effective in patients with severe spinal stenosis

## **Surgery**

- **Most patients with back pain will not benefit from surgery.**
- Spinal decompression, nerve root decompression, and spinal fusion have been extensively evaluated for the treatment of degenerative disorders of the spine

## **Surgery**

- Disk arthroplasty (replacing the original intervertebral disk with an artificial one) appears to be as effective as lumbar fusion for short-term relief of chronic low back pain
- no evidence of long-term relief

## **Intradiscal electrothermal therapy**

- applies heat to a damaged disk through a catheter, causing collagen contraction for structural support and ablating nearby pain-sensing nerves for pain reduction
- provide modest pain relief
- little functional improvement.