THE CONCEPT OF PAINFUL MINOR INTERVERTEBRAL DYSFUNCTION

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Current theory on spinal manipulation:

- The aim of manipulation is to restore normal mobility to a hypomobile vertebral segment (or joint)

- The diagnosis of hypo or hypermobility is based solely on palpation

Assessment of segmental mobility is generally regarded as the keystone of manual medicine for diagnosis and treatment
This theory is open to criticism

- Clinical assessment of hypomobility is not a reliable and reproducible test
- Hypomobility is frequent in osteoarthritic cadaveric vertebral joints
  - There is no evidence that it may be a source of pain
  - Hypomobility could be regarded as a protective mechanism against overuse of a degenerated joint
The R. Maigne School

- If any component of the vertebral motion segment originates pain...

- ...It is likely that stressing this motion segment by specific maneuvers will elicit pain

- The tests we use depend solely upon eliciting tenderness or pain of the segment

- No particular attention is paid to hypomobility per se
This does not mean that hypomobility does not exist.

It means that hypomobility is not the major or primary element regarding vertebral pain.

Hypomobility may be:
- a casual consequence of pain
- or without relationship with the pain
The four specific maneuvers of the segmental examination are:

1 - Pressure on the spinous process
2 - Transverse pressure against the spinous process
3 - Longitudinal friction on the facet joints
4 - Pressure on the interspinous ligament
SEGMENTAL EXAMINATION

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- Transverse pressure against the spinous process
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- **Longitudinal friction on the facets joints**
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SEGMENTAL EXAMINATION

- Pressure on the spinous process
- Transverse pressure against the spinous process
- Longitudinal friction on the facets joints
- Pressure on the interspinous ligament
SEGMENTAL EXAMINATION
Source of errors

- Superficial tenderness of the spinous process
- Interspinous acute bursitis
SEGMENTAL EXAMINATION
Source of errors

- Pressure of a sensitive or cellulalgic skin over the spinous process
 SEGMENTAL EXAMINATION

Source of errors

- Pressure of a cellulalgic skin or tender taut muscular bands against the z-joints
Pain Originating from a Vertebral Motion Segment Can Be Due To Many Causes (benign or not)

- Some are more or less easily recognizable
  - Disc herniation
  - Acute synovitis of the Z-joints

- Others would be only recognizable with sophisticated investigations
  - Facet blocks
  - Discography + MRI

These tests
  - Are positive in less than 50% of the cases (Schwarzer et al, 1995)
  - Are not applicable in routine daily practice
Pain from a Motion Segment Can Be Due To Many Causes

- Segmental examination focuses the interest on the painful segment
- Special attention must be paid on this segment
- Depending on the clinical and the radiological context, further investigations may be necessary
The diagnosis of Painful MID is evoked

1 - When the segmental examination is positive
2 - When the pain is considered as common
3 - Whether the X-Rays films are normal or show non significant degenerative changes
PAINFUL MINOR INTERVERTEBRAL DYSFUNCTION (R. Maigne)

MID:

- Is the result of trauma, efforts, bad postures, repeated micro-traumas...
- Is not linked to any neurological deficit or X-Ray abnormality
- The diagnosis of MID is purely clinical
- It is based on segmental examination
In the framework of common pain syndromes, the most frequent causes of segmental dysfunction are:

- "Painful Minor Intervertebral Dysfunction" (MID)
- Disc lesions
- Synovitis of zygapophyseal joints
Painful Minor Intervertebral Dysfunction

- Painful minor intervertebral dysfunction may be considered as a **self-sustaining sprain** of the vertebral segment.

- The Painful MID can be **active or latent**. The signs of MID are permanent in chronic cases even between attacks.
Painful minor intervertebral dysfunction appears to be the common denominator of a great number of vertebral pain:

- directly
- or by intermediary of reflex manifestations that may be determined in the corresponding metamere: Segmental Vertebral Cellulo - Teno-Periosteo-Myalgic Syndrome

(R. Maigne)