

## LOW BACK PAINS –THE ORTHOPAEDIC SURGEON’S ENIGMA

Although man has been troubled by low back and leg pains since the start of recorded history, it is only during this century that the low back pain symptom complex has taken on epidemic proportions in the developed world. It was Cotugno in the 18<sup>th</sup> century who attributed the leg pain of sciatica to hydrops of the sciatic nerve. Posterior disc displacement was attributed as a cause of low back pain in 1911 by Goldthwait (1). Major advances in both diagnosis and treatment of discogenic low backache have been made in the ensuing years.

The enormous scope of the problem of low back pain is obvious. So, too, is its complexity from a medical point of view. Dillane *et al* (2) has stated that no specific diagnosis is made in 80% to 90% of patients with chronic low back pain.

Here lies an answer to a large part of the problem of the so-called “nemesis of medicine” for the inability to make an accurate diagnosis is further evidence of lack of understanding of the pathologic process. This potentially leads to inappropriate treatment and an unacceptably high failure rate.

The three papers in this editorial on back pains and spinal injuries attempt to elucidate the essential symptoms of the LBP complex. To understand fully various causes of back pain one has to know the embryology, the anatomy, neurovascular supply of the lumbar spine and natural history of disc ageing. The treatment of low back pains is long and tedious and hazardous for the surgeon. This has been so since time in memorial and the prognosis is always guarded and poor prognosis applies both to the surgeon and the patient. E.g. King Hammurabi of Babylon 1955-1912 BC outlined in his code that, if a physician makes a wound and cures a freeman, he shall receive ten pieces of silver, but only five if the patient is the sort of a Plebian or two if he is a slave. However, it is decreed that if a physician treats a patient with a metal knife for severe wound and has caused the man to die-his hands shall be cut off – (Code Hammurabi ) (3). This somehow applies even today, with ever rising medical legal suits that track the orthopaedic surgeon should anything go “wrong “.

We should therefore have knowledge of how to treat the patient conservatively or surgically as the need arises. As regards surgery we must know and inform the patient the indication, complications, expected outcome and success rates. The none surgical modalities available include medications, injections prolytic

enzymes, laser therapy, radiofrequency denervation, intradiscal electro thermal therapy, percutaneous intradiscal radiofrequency thermoregulation and coblation nucleoplasty (4).

Careful assessment, discussion and planning need to be performed so as to INDIVIDUALISE the care of each patient and be careful to use methods that have proven good outcome as evidenced by RCT. No matter what none-surgical approach is taken most patients pain either improves or resolves. However about 5% of patients continue to have persistent low back pains despite multiple trials of rehabilitation or attempts of pain control. It is for these patients that the surgeon decides for surgical intervention. Absolute indication for surgery include progressive muscle weakness (neurologic deficit) or bowel bladder dysfunction (5, 6).

Common surgeries for back pains include various types of fusions for noneradicular low back pains with degenerative changes, discectomy for herniation of the disc and resultant radiculopathy, and decompressive laminectomy with or without fusion for degenerative spondylolithesis. Newer methods of interspinous spacers, and artificial discs.

There is still a need for quality trial that study optimal selection and timing of the surgical treatment options. Studies are needed of cost-effectiveness and effect on long term improvement. Until such data from such studies are available the doctors should follow guidelines on conservative and evaluate the red flags of low back pain and focus treatment on modalities with high quality evidence-based information. Future high quality studies may improve the surgical options, but until then, advice from our mentor, Hippocrates, should be considered: “first do harm “.

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