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RESEARCH ARTICLE

A PRAGMATIC REVIEW OF LOW BACK ACHE AND ITS PRACTICAL APPROACH.

Dr. Vijay Kumar S. Shabadi M.Ch¹, Dr. Satish Rudrappa M.Ch, FASS² and Dr. J. Chandramohan MS³.

1. Associate Consultant in Institute Of Neurosciences, Sakra World Hospital, Bangalore,India.
2. Consultant and Head of Spine Neurosurgery, Sakra World Hospital, Bangalore,India.
3. Associate Professor of Surgery, Basaweshwara Medical College and Research Center, Chitradurga,India.

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Abstract

Background: Low back ache is a common problem encountered in day today practice. These cases are often handled by general practioners, general surgeons, orthopedicians, neuro-physicians and neurosurgeons. It is such a lingering problem that the patients often land up in window shopping of doctors and lands up getting treated inadequately and haphazardly. It also puts the patient in a vicious cycle of depression if not treated properly. Often the methodical approach of treating back pain is neglected by many treating physicians. A systematic and brief review of the subject is necessary to understand the practical approaches towards this common but yet enigmatic problem.

Aims And Objectives: To analyze different causes and presentations of low back ache. To draw a systematic approach towards the management of these cases and formulate a simple practical guide for the medical practioners.

Conclusion: Low back ache is a common problem of 21st century. Not all cases need surgery. Choosing properly indicated patients with good co-relation of clinical and radiological findings adds to good results in well trained hands. Surgery is an alternative only when conservative treatment fails to this common pathology

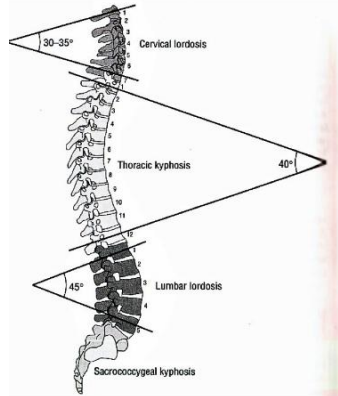
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Introduction:-

Evolution of human beings from quadruped to biped posture resulted in “S” shaped curvature of spine so that back muscles have tension band effect keeping the spine erect so that the entire weight of body and gravity is not on the spine but shared by the muscles. Hence if the curvature is not maintained, the stress and strain is entirely on intervertebral discs leading to degenerative changes. Low back pain (LBP) is a major health and socioeconomic problem in modern society. In modern day society 1 in 3 persons are often affected by this common problem.

Corresponding Author:-DrVijaykumarS.Shabadi.

Address:-M.Ch Neurosurgery, Associate Consultant Neurosurgeon, Sakra World Hospital, Bangalore.



Low back ache-Common causes of low back ache:-

1. Back muscle spasm
2. Acute disc herniation
3. Facet arthropathy
4. Lumbar degenerative stenosis and listhesis

Back muscle spasm: Clinically history clinches the diagnosis and on examination most often can feel the spasm of back muscles and patients will have no radiculopathy or deficits.

CAUSES:

- Sudden strenuous activity
- Sports related injuries
- Prolonged wrong posture
- Co-existing acute disc herniation or facet arthritis

Treatment of acute back spasm consists of:

- Simple NSAIDS
- Muscle relaxants if prolonged pain
- Ultrasound and IFT therapy
- In case of severe spasm complete bed rest on firm flat surface for not more than 2 days

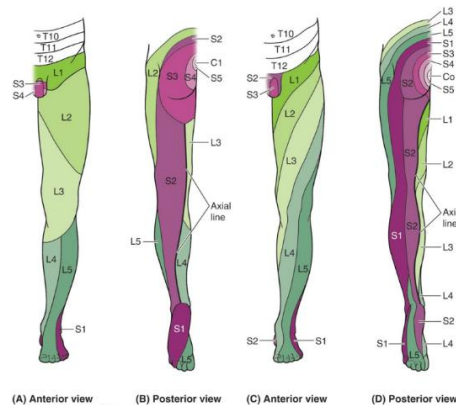
Low back ache with lumbar disc herniation:

Classical manifestations of Lateral disc herniation:

- Dermatomal distribution of pain
- Increased pain on coughing or sudden jolting (radiculopathy)
- Positive straight leg raising test
- Dermatomal signs: for example: a) L5- Extensor hallucis longus weakness with loss of ankle and knee reflex. b) S1: Foot drop and absent ankle reflex

Classic manifestations of Central disc herniation:

- Back ache more prominent than leg pain
- Bilateral leg pain rarely extending beyond knee joint
- Bilateral leg numbness
- Sphincter involvement
- Straight leg raising test normal
- Back pain more on lifting objects than on walking



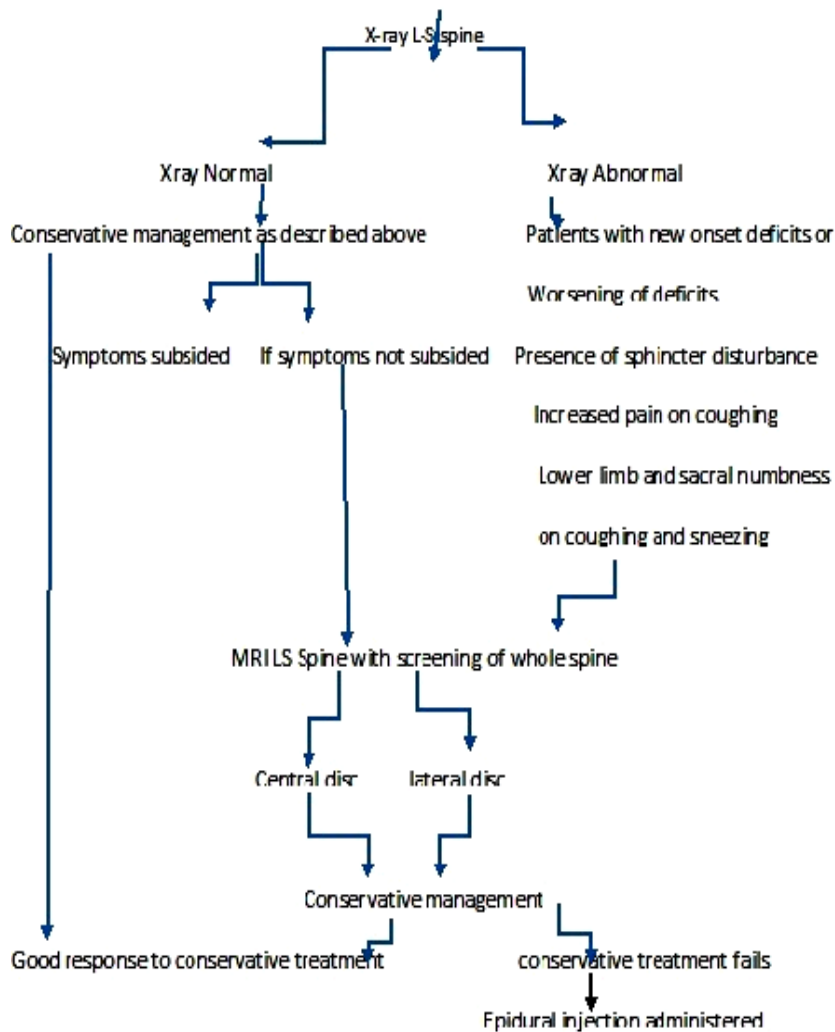
After initial evaluation and during first time presentations patients are usually prescribed conservative treatment:

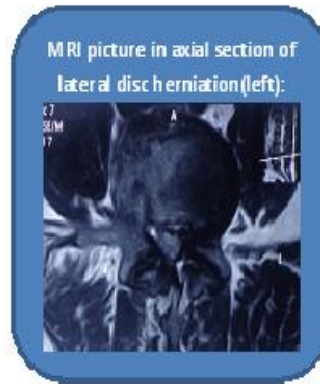
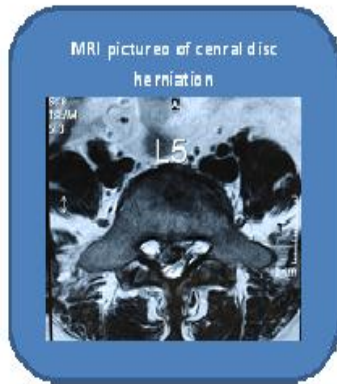
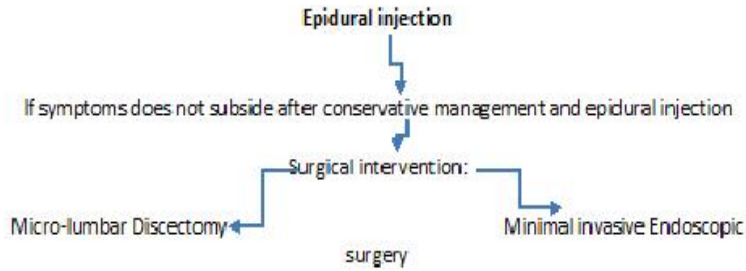
- Absolute bed rest for maximum 3 days
- NSAIDS and muscle relaxants
- Physiotherapy: Yoga and back exercises
- Ultrasound and IFT therapy

Indications for surgical intervention- Microlumbar discectomy:-

- Failed conservative management
- Neurological deterioration and sphincter involvement
- New onset neurological deficits
- Obese young patients with severe central disc herniation

Management protocol of low back pain due to lumbar disc herniation:

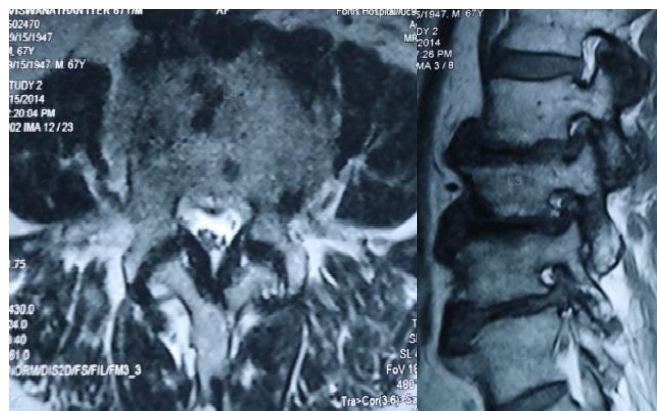


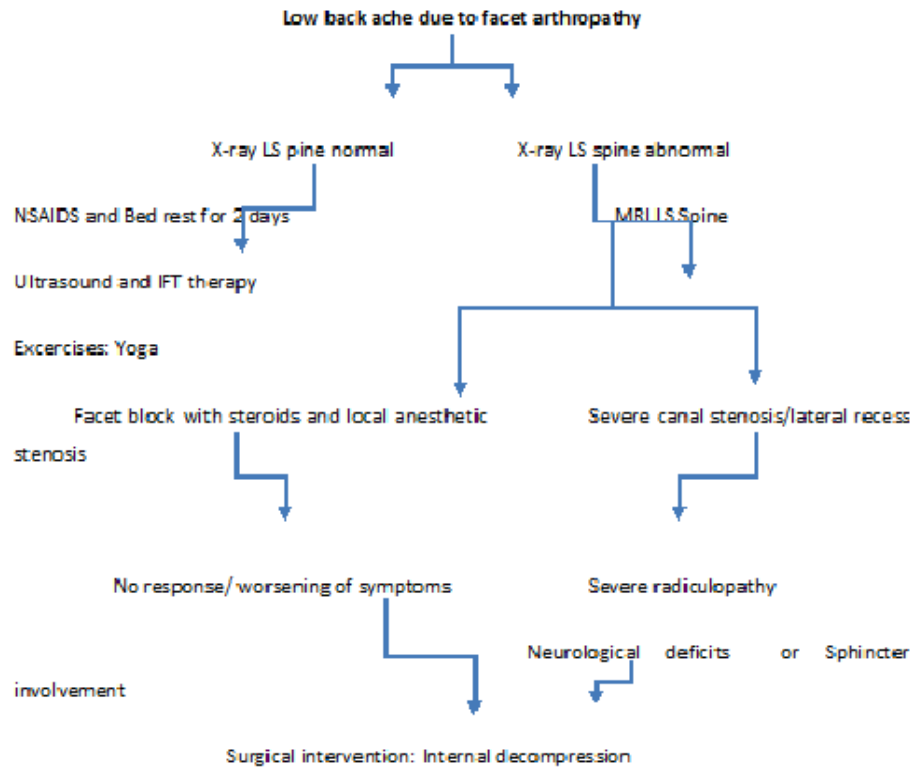


Low back ache due to facet arthropathy:-

Incidence: 60% of low back ache
Common in elder population
Worsens with extension or rotation movement of spine
Pain rarely radiates below knee joint
Severe cases leads to nerve entrapment leading to: weakness, numbness, radicular pain
Tender joints on examination
Restriction of back movements

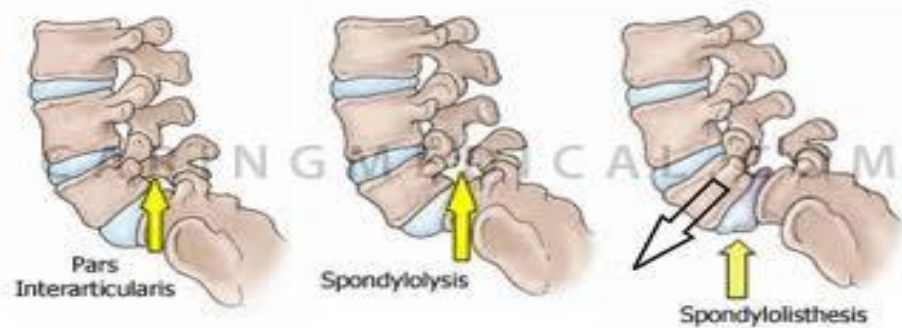
MRI VIEW OF LUMBAR CANAL STENOSIS:





Lumbar listhesis and canal stenosis - degerativespondylolisthesis:-

Usually these patients have chronic degenerative disc which over a period of time due to abnormal posture leads to facet joint arthropathy leading to defect in pars which is termed as spondylolysis. This progresses as there is ongoing motion with instability leading to spondylolisthesis and compromise of spinal canal as well as lateral recess leading to canal stenosis.

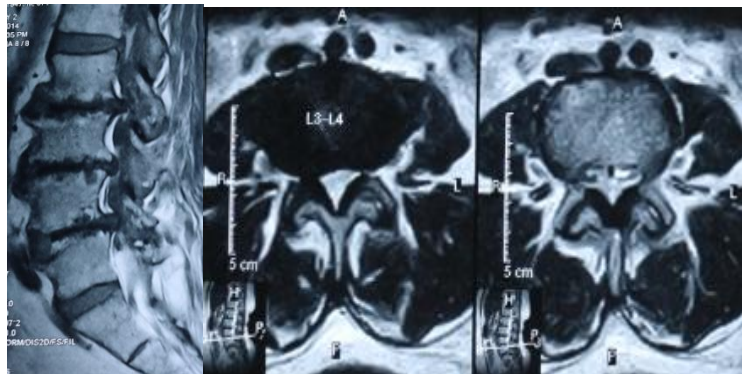


Xray and MRI of L4-L5 listhesis:

- More common in elderly females
- Most common level is L4-L5 level
- Associated with severe facet joint disease
- Subluxation causes narrowing of spinal canal
- Hypertrophic joints encroach on neural foramina causing compression of nerve root

Classical features of lumbar canal stenosis:-

- More common in elderly patients
- Pain is not present on standing but worsening on moving for some distance
- Pain is associated with numbness of bilateral lower limbs
- Pain gets relieved on bending forward or stooping forward
- Severe stenosis may lead to neurological deficits and sphincter involvement

MRI picture of Lumbar canal stenosis:-**Management of low back pain with spondylolisthesis:-**

Non operative management is the mainstay of the management
 Bed rest for 2 days with NSAIDs and muscle relaxants
 Aerobic exercises/ Yoga
 Weight reduction/careful management of osteoporosis

Indications for surgery:-

- If patient does not respond to non-operative measures
- Severe radiculopathy
- Patient has degenerative scoliosis
- Neurological deficits: weakness, numbness sphincter involvement

C-ARM picture of multilevel Lumbo-sacral fusion:-**Physiotherapy for low back ache- Yoga for back ache:-****Conclusion:-**

Low back ache has become a common ailment of 21st century and with sedentary work conditions and lack of physical activities incidence is worsening. Most causes of low back ache can be treated conservatively(90%) and only less than 10% require surgical intervention. It is a myth that surgery worsens neurological conditions. With the use of microscope, endoscope and minimal invasive procedures , spine surgery has become a sub-speciality by itself with success rate close to 95% . Choosing properly indicated patients with good co-relation of clinical and radiological findings adds to good results in well trained hands. Surgery is an alternative only when conservative treatment fails to this common pathology.