A Study of Outcome of Surgical Management of Spondylolisthesis Treated With Pedicular Screw Rod System & Posteralateral Fusion

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Introduction
Spondylolisthesis is the subluxation of a vertebral body over another in sagittal plane and is a relatively frequent mechanism of intervertebral instability.

Causes Are
- LIGAMENTOUS LAXITY
- Defects in pars interarticularis
- Previous surgery.
- Trauma

Classification-Wiltse- Newmann
1) Dysplastic
2) Isthmic
3) Degenerative
4) Traumatic
5) Pathologic
6) Iatrogenic

Aims & Objective
Aim
- To correct spondylolisthesis by pedicular screw Rod system & posteralateral fusion.

Objective

Primary
- TO ASSESS BACK PAIN, REDICULOPATHY & stiffness in spondylolisthesis

Secondary
- To evaluate out come in post operative patient and to minimize its complication.
- To study the efficacy of posteralateral fusion in spondylolisthesis in terms of functional outcome
- Evaluated based on VAS for low back pain,ODI and neurological deficit

Materials & Method
This is a prospective study that will be conducted in the dept. of orthopaedics, katihar medical college katihar, Bihar.
In present study we will evaluate the outcome of surgical management of 30 patients who will be operated upon with post stabilization using pedicular screw rod system and posteralateral fusion for spondylolisthesis between 15 September 2020 to 15 september 2022.

A. Symptoms
Axial pain
Neurogenic claudication
Radiculopathy
Cauda equine syndrome

B. Clinical appearance: Transverse loin crease, forward tilting of pelvis, flattening of lumber spine

Inclusion Criteria
- Patients age between 20-75 years
- Both genders
- Patients Diagnosed with spodylolisthesis with failed conservative treatment.

Exclusion Criteria
- Patients with grade V Spondylolisthesis
- Patients who didn’t have regularly follow up for minimum 6 month
- Patients with any other spinal pathogenesis

Conservative Treatment
Bed rest, Activity modification, weight reduction muscle relaxant, LS corset belt, physiotherapy in form of IFT/ SWD.

Nonresponsive conservative treated patient
- Counselling for surgery.
- Plain roentgenogram of LS with erect flexion & extension.
- MRI LS spine.

Operative Procedure
- General anaesthesia- place Rolten hall frame
- Pedecle screw insertion
- Posterolesral fusion.

Post Operative Protocol
- Drainage tube will be removed at 48 hrs.
- Suture will be removed in 12th day
- Patient will be allowed to ambulate after drain remover with LS belt.
- After 3 month LS belt withdraw gradually.

Outcome Analysis clinical
outcome based on VAS for low back pain, ODI, Radiculer pain, neurological defects an claudication and spinal fusion will be then assessed by plain LS radiograph at 2,4,8 & 12month after operation.

Statistical Analysis
- statically analysis will be conducted by means of SPSS-VERSION-25
- Descriptive statistical for continuous data will be presented as mean=standard deviation.
- Categorical variable wil be analysed with chi square test.
- The probability value of <0.05 will be considered.

Conclusion
- Spondylolisthesis is common condition that is seen in orthopedic practice for low back pain.
- To treat the many non-surgical and surgical methods that have been described in literature.
- Different techniques that is anterior posterior and combined approach will be used.
- Posterolateral lumber fusion and spinal decompression is aneefectiv method.
- PLIF, TLIF & ALIF Procedure will be used

Work place and Duration
Department of orthopaedics
Katihar Medical College, Katihar
Duration- 2 years
15 sept. 2020 to 15 sept. 2022

Bibliography
Spondylolisthesis by Bone Grafting, with or without Facet Joint Fusion. European Spine Journal: Official Publication of the European Spine Society, the European Spinal Deformity Society, and the European Section of the Cervical Spine Research Society, 10, 78-83.


UNDER TAKING

I agree to abide by the ethical guidelines for biomedical research on human subjects while the research project being submitted for ethical committee consideration.

- Project is considered to the absolutely essential for advancement of knowledge.
- Only subjects who volunteer for the project will be included.
- Privacy and confidentiality of the subjects shall be maintained and without the consent of the subjects no disclosure will be made.
- Proper precautions shall be taken so as to minimise risk and prevent irreversible adverse effect.
- Result of research will be made known through scientific publication.
- Only those drugs which are approved by the drug controller of India for specific purpose will be used in the research project.