SUMMARY

Lumbar Spondylolisthesis is the slipping of one vertebral segment on the one below. The slipping mass is cmn-posed of the body and part or whole of the neural arch. Slipping is most commonly between L4 and L5 or between L5 and the sacrum. When thel-eis no slipping forward of the vertebra but there is only a defest in the pars interarticularis the condition called spondylolysis ***(Wiltse, 1965).***

Wiltse, 1976 classified spondylolisthesis into five aetiological types.

1. Dysplastic. *In which cephalad portion of the sacrum or neural arch of L5 results in a structural deficiency of one of the articular processes.*

2. ***Isthmic.*** *The essential lesion is in the pars inter-articularis. and may be* ***Lytic type. elongation of the pars without defect or acute pars fracture.***

3. ***Degenerative.*** *Vertebral slipping can result from mechanical wear of the posterior facet joints. The main problem is degenerative joint disease. It is commonest in women over the age of 55.*

4. Traumatic. *The slip can be due to acute traumatic fracture.*

5. Pathological. Both tumours and osteoprpsis can weaken the pars interarticularis.

Clinically the patient may present with back ache and pain in the lower extl-~mities.~en pain is Severe. sciatic is distribution. usually unilateral. and dccompaned by neurologic deficit. Bending forward is restricted. the gait is a "pelvic waddle" type of a couda equina syndrome.

Roentenographic finding appears in lateral view of forward displacement of the lowermost lumbar vertebra carring forward the spin~ above it. In oblique views clearly outline the pars interarticu1aris defect appear as cut in the neck of " scottish terrier". The 30'"oblique cranial tilt view is more reliable than standerd oblique views in detecting spondylolysis as it visualises the pars interarticu1aris tangentially.

Myelographic finding in cases of true spondylolisthesis show a partial or complete block. 01se. CT scaning clarified the aetiology of the neurologic defect. and visualized the mass of fibrocartilaginous pars interarticularis. Recently. magnetic resonance (MR) images WaS easily seen the defect in the pars interarticularis as a double lines of low signal intensity perpendicular to the axis of nOl"ma1 pars inter-articularis.

Many case8 of spondylolisthesis have few symptoms and accordingly in these cases no treatment is indicated. Most of cases respond to conservative measures in the form of restriction of activity, a lumbosacral support for use when the back is painful and exercises to build up the extensor muscles of the spine.

The operative treatment of spondylolisthesis requires stabilization of the olisthetic vertebra. This can be achived by a spinal fusion that exteds from the neighboring adjacent vertebra above through the slipped vertebra to the sacral alae below. A posterior midline fusion involves extensive stripping of soft tissues, that encourages further slipping before the fusion becomes solid. Furthermore, prolonged postoperative recumbency and irrmobilization by casts or orthoses, the incidence of pseudarthrosis is high, especially in children.

In intertransverse spinal fusion will preserve most of the supporting soft tissues. The operative approach. to transverse proces'sescan be accomplished through a midline incision. but it is better performed through a sacrospinalis muscle-splitting incision (Wiltse) or, adjacent to the outer border of that muscle (Watkins) or, transverse incision is centered on the 51 spinous process (Pizzutillo).

Anterior in~erbody fusion indicated in high grade spondylolisthesis when there have been one or two failures of posterior fusion 4sing full thickness bone graft from top of the iliac crest or fibular graft.

Posterior decompression by removal of the loose posterior element and the fibrocartilagnous mass of the spondylolysis defect (Gill's operation) it carries a *high probability of producing* a *severe slip.*

The need for reduction of the displacement remains controversial. It is probably never necessery because an "in situ" Spinal fusion effectively reıives symptoms. It is certainly indicated when slip more than 50 %

Internal fixation of lumbar spondylolisthesis using AD Malleolar scrow and bone graft or tension band wiring indicated in patient had not relived by non-operet ive treatment.

In 1970. Judet. and Roy-Cdmil1e describe the use of posterior plates with scrow driven parallel to the sagittal plane and into the pedicles and articules processes.