INTRODUCTION

Spondylolisthesis is defind as the slipping of all or part of one vertebra forward on another, from the Greek "*Spondylo*", Vertebra, and "*Olisthesis*", meaning to slip or Slide down on incline (most commenly the lowest lumbar vertebra on the sacrum ***(Wiltse, et al, 1983)***.

Spondylolysis of the lumbar spine is defined as a defect in the pars interarticularis or isthmus. Its cause is uncertain but is believed to be related to repeated stress and trauma. The frequency of spondylolysis in general population is estimated to be between 3% and 10% (Collier, 1985).

Spondyloptosis, is a complete dislocation of the lumbo-sacral joint, often associated with vertical descent of the fifth lumbar vertebra anterior to the first sacral vertebra. ***(Bohlman, and Cook 1982)***.

The natural history of spondylolisthesis indicates that a defect in the pars usually occurs after 6 years of age, and vertebral displacement tends to progress most commonly between 9 and 12 years of age ***(Wiltse, and Jackson, 1976)***. Further displacement of the vertebra is uncommon after 15 years and rare after 18 years of age ***(Laurent 1961)***.

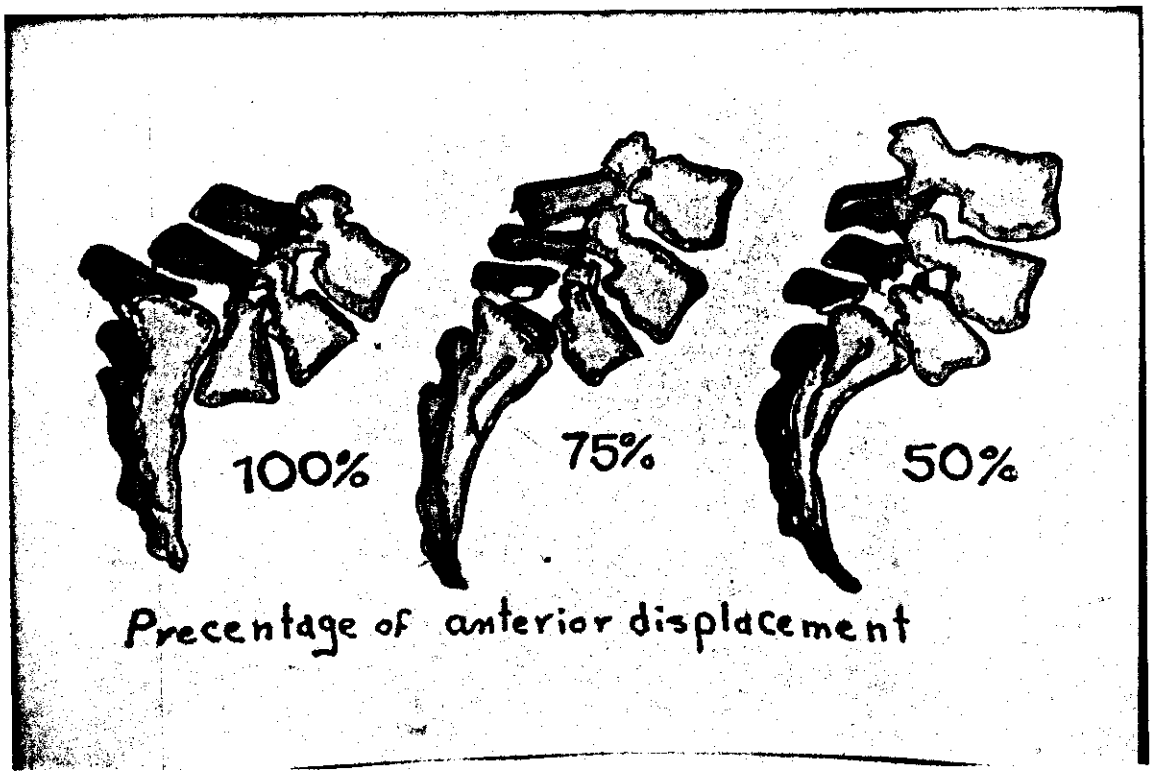

Fig.(1)

Percentage of ahterior displacement
(Peak, 1989).

Intersegmental instability is the primary factor that allows progressive spondylolisthesis to occur in the adolescent and accounts for subsequent clinical problems *(Hensinger, 1976)*. The symptomatic adult with spondylolisthesis does not usually exhibit instability, but does present with degenrative changes involving the disc or apophyseal joints, osteophyte formation, and nerve root encroachment as the source of clinical problems *(Henderson, 1966)*.

Spondylolisthesis is a hereditary anomaly of the spine often associated with intractable pain in the back and lower extremities. It has been since 1741 when **Andre** described the cause of a hollow back as an " inward warping of the spine". Kilian first describe spondylolisthesis in 1854, and **Robert**, in 1855, first noted the defect in the neural arch as the fundamental lesion. **Neugebauer**, in 1884, was the first suggest that the spondylolisthesis resulted from congenital defect in the neural ring. Prior to the discovery of the Roentgen ray in 1898, the diagnosis is commonplace. This anomaly occurs in approximately 5% to 7% of the population, this percentage varies with country and race. In patients who seek medical aid for symptoms of low back pain, 10% will have a pars defect *(Cloward, 1981)*.

Many cases of spondylolisthesis have comparatively few symptoms, and accordingly no treatment is indicated. This frequently corresponds with a degree of spondylolisthesis of Grade 2 or less. For the majority, who presnt initially with low back discomfort and hamstring tightness, conservative treatment in the form of pelvic tilt and spinal flexion exercises and hamstring- releasing exercises covered by an anti-inflammatory analgesic, is frequently rewarding. For thosewith persistent symptoms, surgical treatment is indicated. (Fig. 1)