



## البحث الخامس

# **Surgical repair of multiple level spondylolysis with preservation of spine mobility: A Clinical Study**

**Mohammed Ahmed Moussa**

Ayman Abdelbaset Abdelsamad

**Objective:** To report nine cases of multiple-level spondylolysis and evaluate the effectiveness of surgical repair in relieving the patient's pain scores and improving their quality of life, in addition to exploring possible alternative management plans.

**Patients and Methods:** We followed the CONSORT guidelines during the preparation of this study. Patients with multiple-level spondylolysis were included. We compared postoperative lower back pain (LBP), leg pain, and Oswestry disability index (ODI) during a follow-up period of 12 months with baseline values. The pain was assessed using a self-reported visual analog scale (VAS). Other outcomes as operation time, blood loss, and hospital stay were also analyzed.

**Results:** nine patients (five males and four females) were included in this study. The mean  $\pm$  SD age was  $24 \pm 2.96$  years. Compared with preoperative data, the LBP-VAS has significantly decreased ( $p < 0.001$ ) after one day ( $5.67 \pm 0.87$ ), after three months ( $3.67 \pm 0.5$ ), after six months ( $2.78 \pm 0.44$ ), and after one year ( $1.67 \pm 0.5$ ). Leg pain VAS has been reduced to  $3.11 \pm 1.05$  on the first postoperative day,  $1.44 \pm 1.59$  after three months,  $0.56 \pm 0.53$  after six months, and  $0.11 \pm 0.33$  after one year. The mean operative time was  $120 \pm 37.1$  minutes, blood loss was  $325.56 \pm 53.18$  ml., and hospital stay was  $5.22 \pm 1.2$  days.

**Conclusion:** After 12 months of follow-up, surgical repair and preservation of the spine motion are possible with excellent outcomes in patients with two or three-level spondylolysis