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Complications after 4 Years Follow-up on Two Level AxiaLIF Procedures
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Background: Presacral AxiaLIF procedure has its results already in reports and literature, but the L4L5 L5S1 procedure lacks communication. Radiolucency is shown in the literature as a consequence of micro motion, loosening of the implant, instability and pseudarthrosis.

Methods: 20 patients with a median age of 48.3 years (29-70 y/o) and DDD at L4-L5 and L5-S1 underwent an axial lumbosacral surgery to achieve fusion. Analysis consisted on X-ray and CT evaluation by an independent radiologist and VAS and ODI assessment. Fixation of lumbosacral junction was performed through a 14 mm access cannula using an innovative minimally invasive axial presacral approach (AxiaLIF) coupled with bone graft material and posterior percutaneous pedicle screws.

Results: Mean surgical time was 130.7 minutes and blood loss less than 50cc. There was minimal post-operative pain. Mean clinical outcome was improved in postop assessment. The presence of radiolucency after 12 months was 60% (12 patients) and increased to 80% (16 patients) after 24 month follow up, prevalence that continues up to the last point. Radiolucency cases were illustrated by slight bone damage around the rod, up to cases with upper vertebral body and disc violation by the rod. One revision surgery was performed due to rod loosening and collapse.

Conclusions: The clinical data to date indicate that subjects being treated with AxiaLIF two levels device and procedure have on average improved since their pre-treatment condition. The presence of radiolucency was seen in 80% of cases. The fusion analysis depends on considering the radiolucency or not. Longer follow up is required to better understand the radiolucency influence in fusion status and surgery success.