

THE EFFECT OF UPPER INSTRUMENTED VERTEBRA LEVEL (T9 VS T10) ON RADIOLOGIC AND FUNCTIONAL OUTCOMES IN THE SURGICAL TREATMENT OF ADULT SPINAL DEFORMITY IN OSTEOPOROTIC PATIENTS OVER 60 YEARS OF AGE

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PURPOSE

In this study, we compared the radiologic and clinical outcomes of 2 groups in which T9 (T9G) or T10 (T10G) were selected as the UIV with respect to PJK and PJF rates with min 2 years follow up.

MATERIAL & METHODS

Inclusion criteria:

- **Adult Spinal deformities**
- **Age is over 60 years old**
- **T score is less than -2,5**
- **Underwent posterior fusion from midthoracic to pelvis**
- **ODI score**
- **Preop, postop and follow/up pelvic and sagittal parameters were included.**

RESULTS

T9 Group

- 38 patients (27F, 11M)
- Mean age 69 (60-79) years
- Mean f/up 47 (24-177) months

T10 Group

- 43 patients (30F,13M)
- Mean age 67 (60-80) years
- Mean f/up 61 (24-138) months

RESULTS

- **Radiologically;**
 - **No patient had PJK/PJF in T9G**
 - **8 patients had PJK (18.6%) and 4 patients had PJF in T10G (9.3%).**
(The cases with PJF underwent revision surgery for extension of the fusion up to T4.)
- **Preop, early postop and follow/up pelvic, coronal and sagittal parameters were not statistically different($p>0.05$).**
- **Mean ODI scores at final follow/up were better in T9G (23) than T10G (33).**

CONCLUSION

In long fusions from midthoracic spine to the pelvis, patients with UIV at T9 (none PJK / PJF) showed much better radiological outcomes when compared to UIV at T10 (PJK 18.6%, PJF 9,3%).

Clinical results of ODI scores were better in T9 group.

CONCLUSION

We believe that T9 level carries different anatomical, biomechanical and sagittal plane characteristics and provide better biomechanical support when compared to T10 level.

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