

**Introduction** The aim of the multicenter study (EOFTT) was to evaluate the recently developed OF-score and treatment recommendations for osteoporotic thoracolumbar fractures. **Material and Methods** Monocentric evaluation of a multicenter prospective cohort study. All inpatients with osteoporotic thoracolumbar fractures with a follow-up between 6 weeks and 12 months were included and evaluated clinically and radiologically. Treatment was based on the recommendations of the OF-score (<6 points conservative, >6 points surgery). **Results** Over a period of 28 months 60 (69%) of 87 treated inpatients fulfilled the inclusion criteria. 82% were female. T-score was  $4,04 \pm 0,73$  g/cm<sup>2</sup>, average age  $76 \pm 8.1$  years and 25% had more than one fracture. Classification according to OF was: OF 1: 0%, OF 2: 25% OF 3: 23% OF 4: 45% OF 5: 7%. Three patients (5%) suffered from a fracture related neurological deficit. The median OF-score (25% / 75% quartile) was 7 (5/9). 37 patients (62%) were treated according to the score recommendations including 2 (3%) conservative treatments, 30 (50%) surgical treatments, and 5 (8%) relative indications for surgery. 17 patients (28%) were treated surgically despite a conservative recommendation and 6 patients (10%) vice versa. Subsequently, after discharge 3 conservative treated patients (5%) needed surgery. Overall, 90% of all patients were treated operatively of whom 28 (55%) received kyphoplasty, 11 (22%) stabilisation with pedicle screws and 12 (24%) hybrid stabilisation. The overall complication rate was 24% including one surgical revision due to a hematoma. 9 (15%) patients developed adjacent fractures. The average follow-up time was  $32 \pm 19$  weeks (range 6-72). The clinical parameter improved significantly ( $p < 0,05$ ) from preop to last follow-up (preoperative, day of discharge, final follow-up, mean  $\pm$  standard deviation): VAS back  $8,2 \pm 2,1$ ;  $4,4 \pm 2,3$ ;  $3,1 \pm 2,7$ . ODI:  $71\% \pm 16\%$ ;  $61\% \pm 12\%$ ;  $36\% \pm 19\%$ . Barthel-scale:  $72 \pm 23$ ;  $80 \pm 14$ ;  $91 \pm 13$ . 98. The local bisegmental kyphotic angle (GDW) showed no significant improvement over time (preoperative, day of discharge, final follow-up, mean  $\pm$  standard deviation):  $-3^\circ \pm 21^\circ$ ;  $-0^\circ \pm 19^\circ$ ;  $-3^\circ \pm 20^\circ$  (all kyphosis). Only the group of OF score conform treated patients achieved the minimal clinical difference in ODI. **Conclusion** The recommendations according to the OF-score, whether surgical or non-surgical lead to clinical favorable results after 8 months on average. However, with 24% the overall complication rate is rather high. The typical minimal-invasive surgical techniques (kyphoplasty, pedicle screws) do not improve the local kyphosis. Schnake KJ, Blattert TR, Hahn, et al. Classification of Osteoporotic Thoracolumbar Spine Fractures: Recommendations of the Spine Section of the German Society for Orthopaedics and Trauma (DGOU) *Global Spine J.* 2018 Sep;8(2 Suppl):46S-49S. doi: 10.1177/2192568217717972. Epub 2018 Sep 7. PMID: 30210960

# Comparison OF-score recommendations and treatment

