

Palliative surgical treatment of spinal metastases using posterolateral decompression with sole posterior instrumentation- analysis of 57 consecutive patients and review of the literature -

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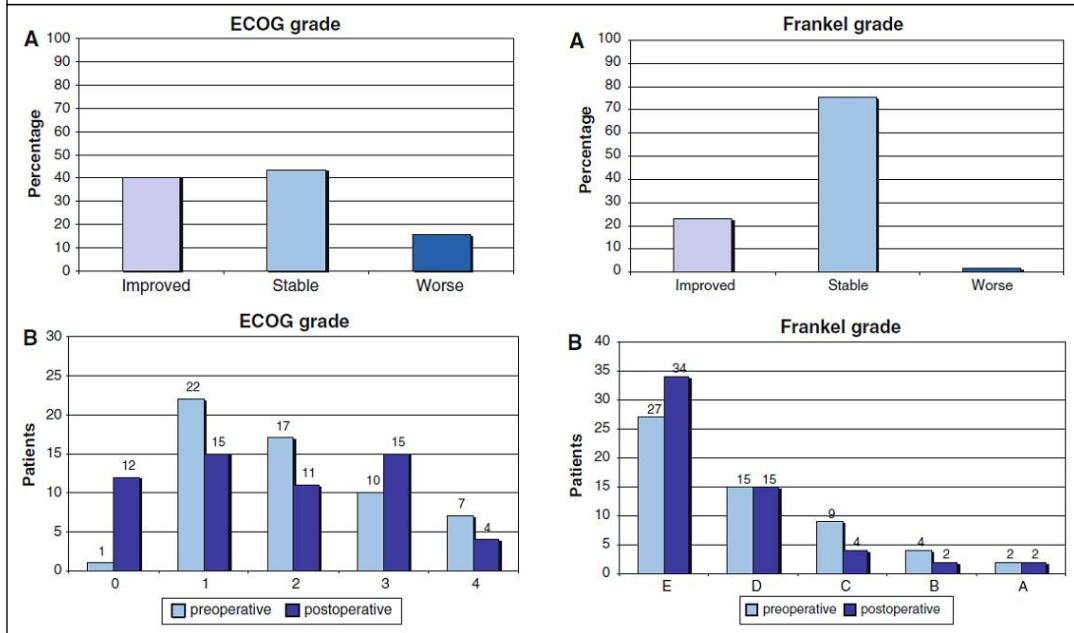
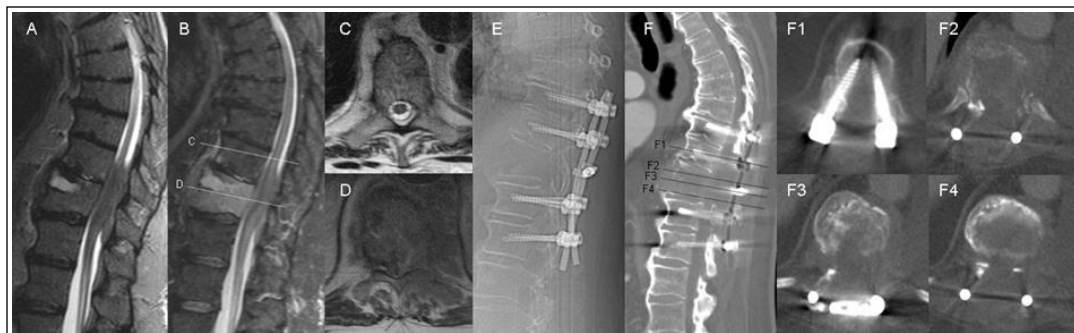


Introduction

It's the purpose to evaluate the outcome of patients with spinal metastases, who were treated by posterolateral decompression and sole posterior instrumentation, in respect to their survival, neurological symptomatology, pain, ECOG grade and Tomita`s prognostic score.

Methods

Fifty-seven consecutive patients (31 men, 26 women) with metastatic cervical, thoracic and lumbar spine tumors were treated using a posterolateral approach for spinal decompression and sole posterior instrumentation. The mean age of the patient group is 58,6 years (range: 84-17 years). In average 3.4 vertebral segments (range: 2-7) were involved in instrumentation.

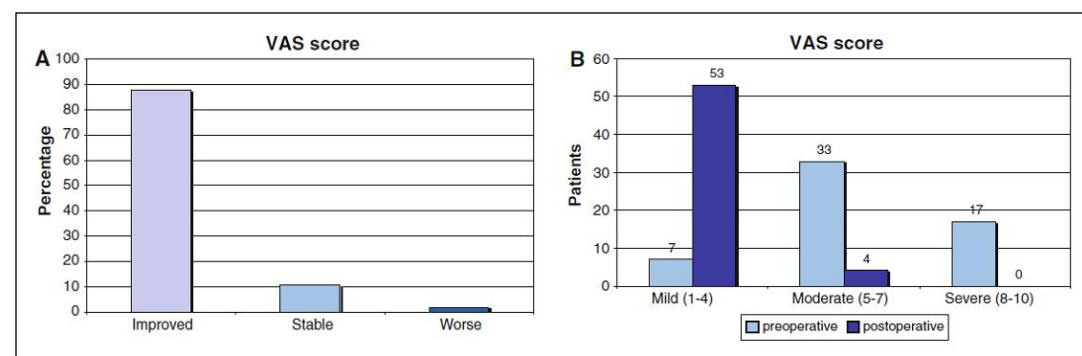


Results

Preoperatively mean Tomita`s prognostic score (TPS) was 5.9 with 8 patients of a TPS over 8. The majority of the patients (70.2%) presented with a ECOG grade =2. The distribution of the metastatic lesions that needed surgical treatment was: 7.8% cervical, 60.9% thoracic, and 31.3% lumbar. In 52.6% of the patients the tumorous lesion led to pathological vertebral fractures. Mean operative time was 3.3 hrs (range 1.9-4.8 hrs). One of the patients required a repeat operation. The mean VAS-score improved significantly in all patients from 6.6 preoperatively to 3.1 postoperatively. The mean postoperative survival was 11.4 months and ranged from 0 to 46 months. Frankel grades were decreased significantly by operation. Ten patients survived until now. 47 patients have died with a mean survival of 9.0 months. There were 8 patients that died within 2 months after surgery. Complication rate was only 5.3% with 2 superficial wound infections and 1 seroma. Not a single case of posterior spinal instrumentation fatigue failure was detected.

Learning Objectives

To evaluate the posterolateral decompression with sole posterior instrumentation in the treatment of spinal metastases under palliative considerations.



Conclusions

The palliative surgical treatment for metastatic spinal tumors using a posterolateral approach combined with sole posterior instrumentation achieved good clinical results. All of the patients with intractable pain showed a significant improvement postoperatively and Frankel grades decreased after surgery. Since patients with spinal metastases entered the terminal stage of their disease, it is generally agreed that they require only palliative surgical treatments. Accordingly spinal decompression and stabilization may be performed to improve the quality of the remaining life of cancer patients.