

## Changing Perspectives: The Concept of Feasibility and Bioethics in Spinal Surgery

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### Introduction

The spine is a common site of life-threatening fractures and skeletal metastases, nevertheless the evolution over time of surgical methods and medical treatment has led to improved survival and functional status.

Although spine surgery has been the first specialty to tackle the rising ethical problems of conflict of interest and financial disclosure, the practical dilemma between feasibility and bioethics, especially while making difficult therapeutic choices involving fragile patients, has rarely being addressed.

### Methods

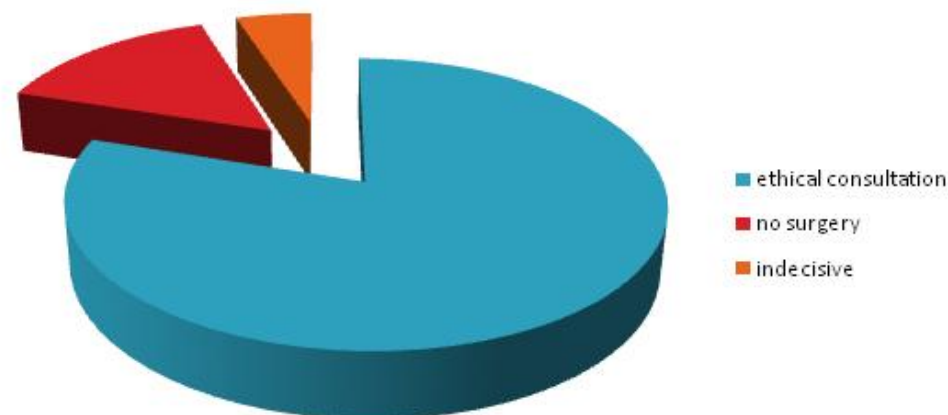
The topic of bioethical choices in spine surgery has been addressed with special attention to life-threatening spinal traumas or spinal metastases and their impact on quality of life (QoL). The analyses have been conducted by means of: review of the English literature, and interviews within a cohort of elderly or cancer patients and their close relatives.

### Results

In the 1990s, evidence-based medicine emerged as a way to improve and evaluate patient care; however to date the systematic review of large randomized controlled trials has shown a lack in providing recommendation on treatments for elderly and cancer patients. As a general agreement, the most accepted treatment goals include the preservation and restoration of neurologic function and spinal stability; experts suggest that despite the great variety of approaches and stabilization techniques technically available to date, the decision making process should be tailored to the functional expectations and systemic comorbidities of each single patient.

A total of 40 patients with reduced life expectancy due to their age or pathological condition were interviewed to assess their propensity toward technically feasible but complex and high-risky surgical treatment. To this regard we asked how they would face a serious traumatic or metastatic spinal disease, that was still surgically treatable but not curable, and likely to compromise their QoL in some way. The patients were freed to discuss this assumption with their relatives for a while, then their final decision was registered; it resulted that 80% would opt for ethical consultation prior to deciding whether to accept or reject surgery, while 15% would refuse further treatments. Only 5% of the cohort chosen not to respond.

### Attitude of patients towards still treatable but not curable complex spine pathologies



### Conclusions

Combining the best research evidence with the patient's values will improve the decision making process on how to properly diagnose illnesses, choose the best testing plan, treatments and methods of disease prevention. While is not possible to adopt practice guidelines for every single patient, it is mandatory to identify those requiring a more comprehensive approach and understand the importance of ethical consultation in clinical practice

Based on the information obtained from our interviews, neurosurgeons and ethicists should work in a coordinated fashion to resolve dilemmas involving complex medical and legal cases, with the goal of achieving resolution and consensus regarding the appropriate delivery of healthcare.

### References

- Sokol DK, et al.: Raising the ethical standards in neurosurgery. **Acta Neurochir 2009**
- Andersson GB, et al .: Do no harm: the balance of "beneficence" and "non-maleficence". **Spine 2010**