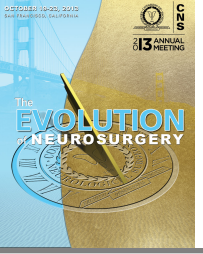


Comparison of the Complications of Instrumented Spinal Fusion in the Elderly and Younger Population

James S. Harman DO; Otakar R. Hubschmann MD; Joseph M. Koziol MD
Saint Barnabas Medical Center, Livingston, New Jersey



Introduction

Spinal stenosis is primarily a disease of the older population. Return to functional status is generally achieved with decompressive surgery, but there is an increasing number of patients who have co-existent overt or occult spinal instability. In such patients, decompression alone not only does not relieve the symptoms, but often makes them worse. Instrumented reconstruction is frequently not performed even if indicated for a fear that this patient population could not tolerate such extensive surgery. In our institution, we have adopted an aggressive approach and performed stabilization if indicated regardless of age.

Methods

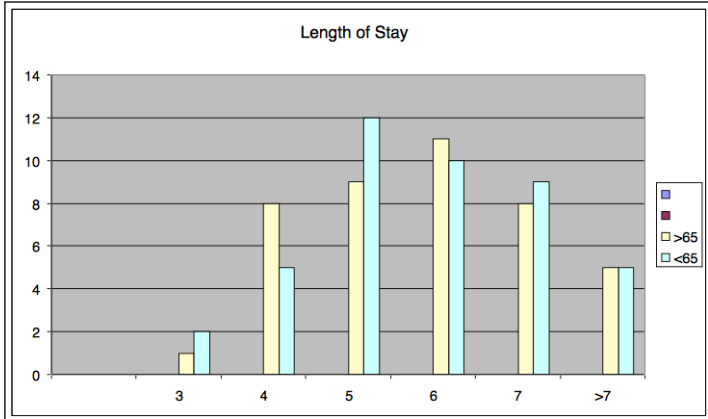
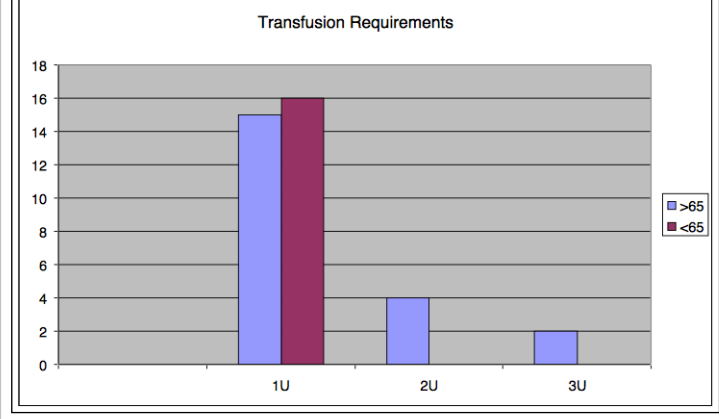
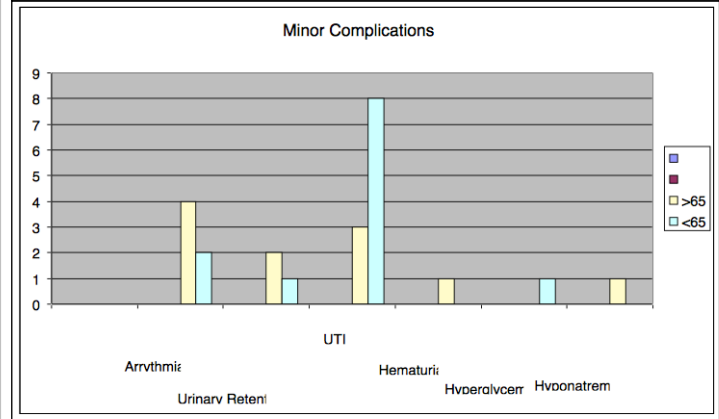
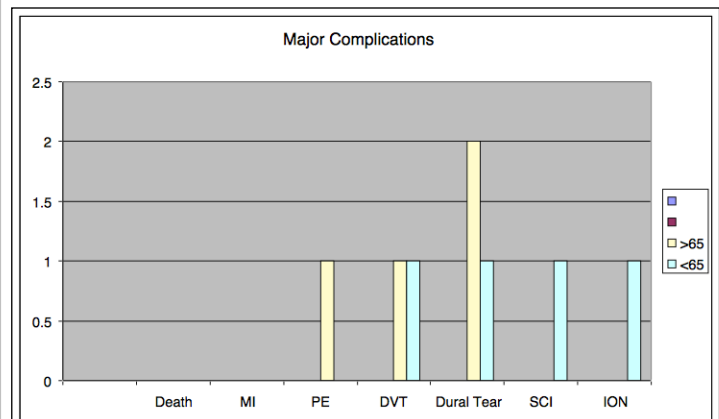
We have analyzed the surgical results of 85 patients ranging in age from 32 to 87 years old. We have retrospectively compared the results of decompression with instrumented fusion including pedicle screws fixation and the transforaminal lumbar interbody fusion (TLIF) in 85 patients divided into two age groups, <65 and >=65. The study had two arms. The first arm which is the subject of this communication was to assess the safety of the surgery. In the second arm we compared the results. We compared minor and major complications as defined by Reindel et al., the length of surgery, length of hospital stay and transfusion requirements.

Learning Objectives

By the conclusion of this session, participants should be able to: 1) discuss and compare the complications of instrumented spinal fusion in the elderly and younger populations 2) describe the importance of evaluating for both overt and occult spinal instability 3) Identify patients that would be appropriately treated and benefit from instrumented spinal fusion regardless of age.

Results

There was statistically no significant difference in the rate of complications, transfusion requirements, or length of stay between these two groups (Table 1-4).



Conclusions

We conclude that with modern anesthesia, advanced age alone, even with the common comorbidities of that population is not a contraindication to extensive spine reconstruction where indicated (Table 2).

References

Carreon LY, Puno RM, Dimar JR II, et al. Perioperative complications of posterior lumbar decompression and arthrodesis in older patients. *J Bone Joint Surg Am* 85:2089-92, 2003.

Daubs MD, Lenke LG, Cheh G, et al. Adult spinal deformity surgery: Complications and outcomes in patients over age 60. *Spine*. 32:2238-54, 2007.

Deyo RA, Ciol MA, Cherkin DC, et al. Lumbar spinal fusion: A cohort study of complications, reoperations, and resource use in the Medicare population. *Spine*. 18:1463-70, 1993.

Fast A, Robin GC, Floman Y. Surgical treatment of lumbar spinal stenosis in the elderly. *Arch Phys Med Rehab*. 66:149-51, 1985.

Ragab AA, Fye MA, Bohlman HH. Surgery of the lumbar spine for spinal stenosis in 118 patients 70 years of age or older. *Spine*. 28:348-53, 2003.

Reindel R, Steffen T, Cohen L, et al. Elective lumbar spinal decompression in the elderly: Is it a high risk operation? *Can J Surg*. 46:43-46, 2003