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Correlation of BMI and clinical outcome in patients with monosegmental PLIF

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Literature



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J Neurosurg Spine. 2007 Apr; 6(4): 291-7
- Andreshak TG. et al.: Lumbar spine surgery in the obese patient.
J Spinal Disord. 1997 Oct; 10(5): 376-9
- Zheng F. et al.: Factors predicting hospital stay, operative time, blood loss, and transfusion in patients undergoing revision posterior lumbar spine decompression, fusion, and segmental instrumentation.
Spine. 2002; 27(8): 818-824

Aim & Design



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- Is there a correlation between **BMI** and

- patient reported clinical **outcome**

after monosegmental lumbar fusion
(PLIF)?

➔ Retrospective chart review

Material & Method

I



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- 2002 – 2008: 498 monosegmental fusions
308 complete datasets
- Inclusion: Spondylolisthesis
Spinal Stenosis
DDD } **1 Level
PLIF**
- Exclusion: Revision cases
Infection
Trauma
Tumor

Material & Method

II



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- Clinical Outcome: SF36
ODI
- Follow-Up: 6 Weeks
1 Year

Material & Method

III



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■ Patient sample

Sex: 196 male
 112 female

Age ø: 60a (29a – 84a)

BMI ø: 28.7 (16.5 – 39.7)

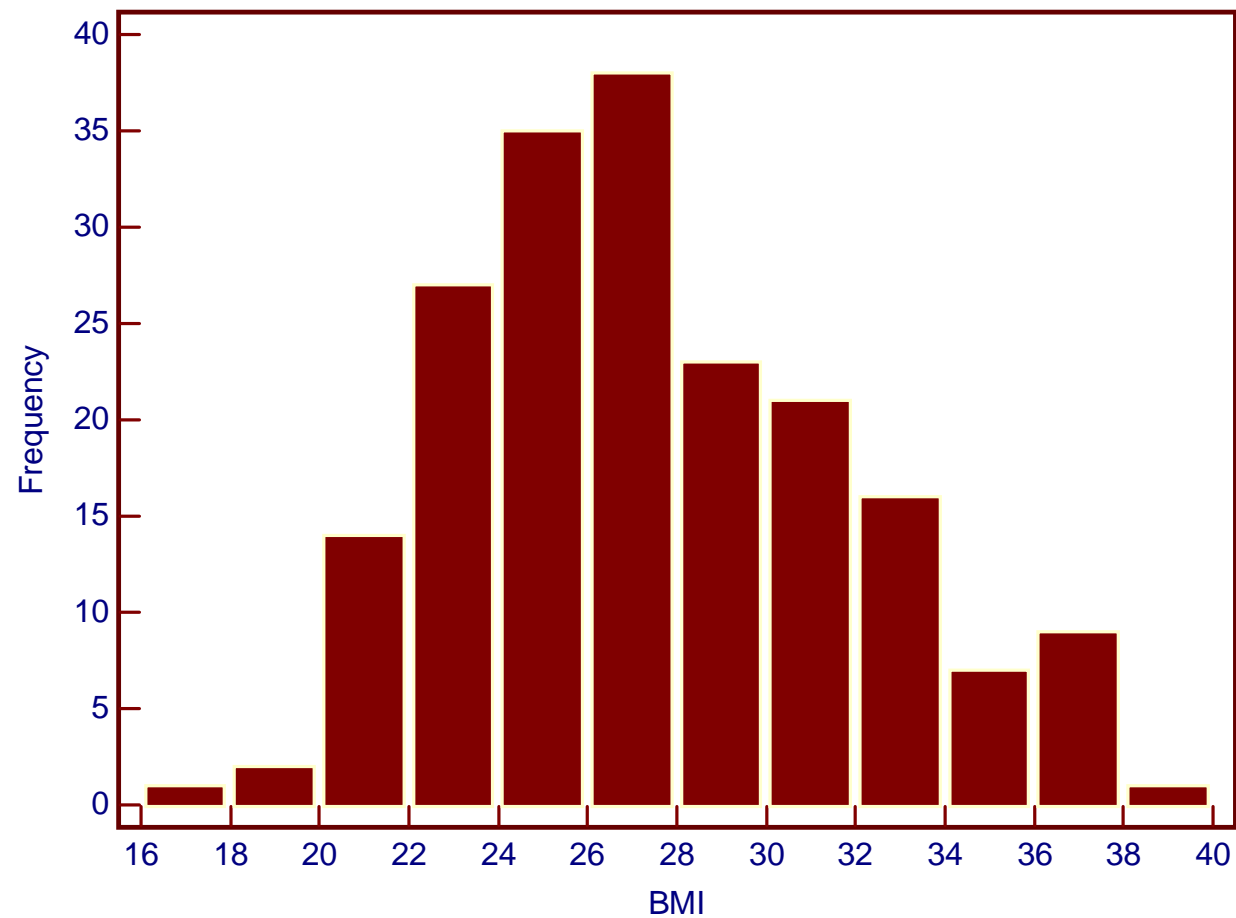
Material & Method

IV



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■ BMI-Distribution



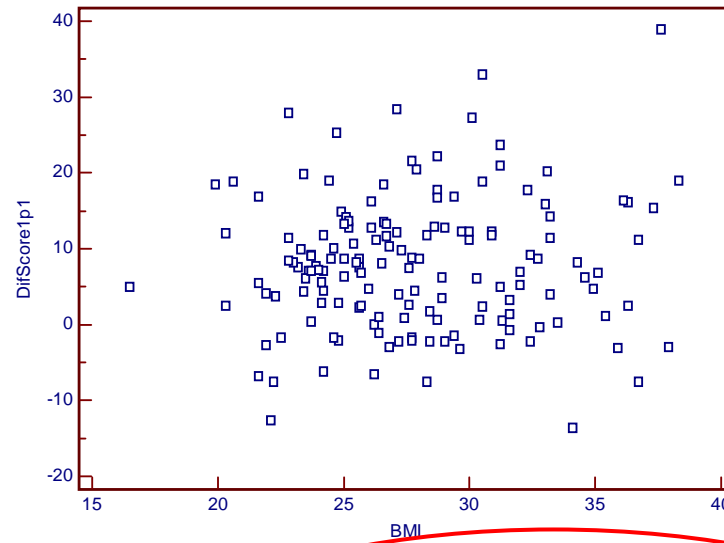
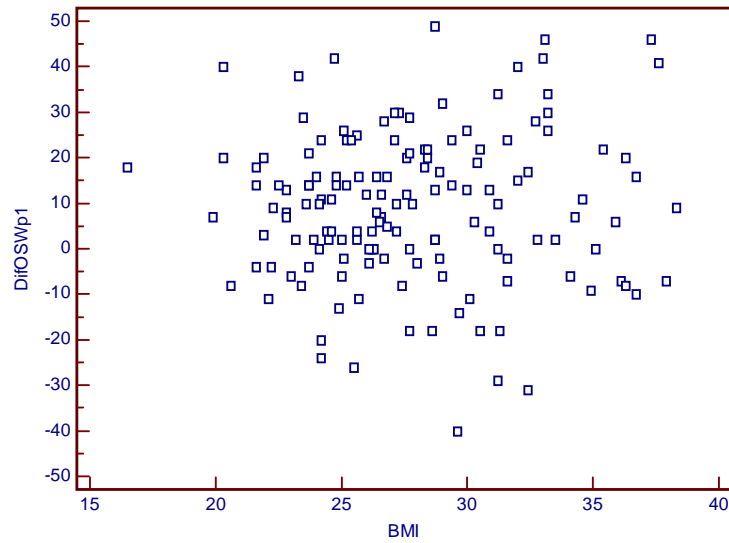
Results

Oswestry

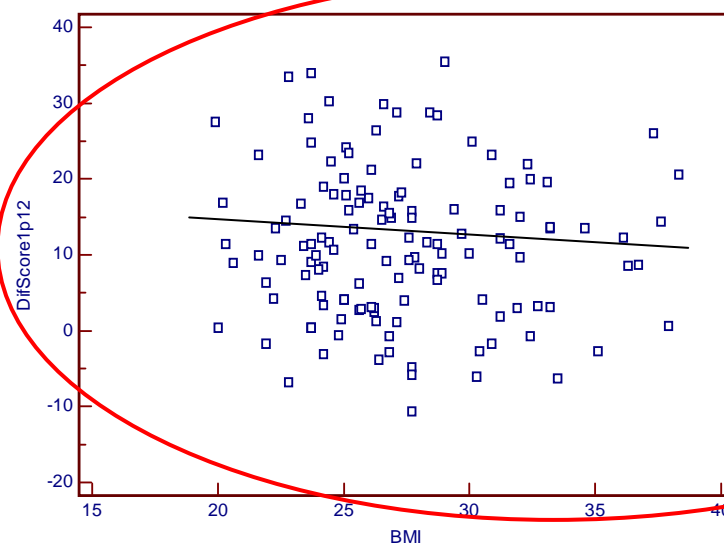
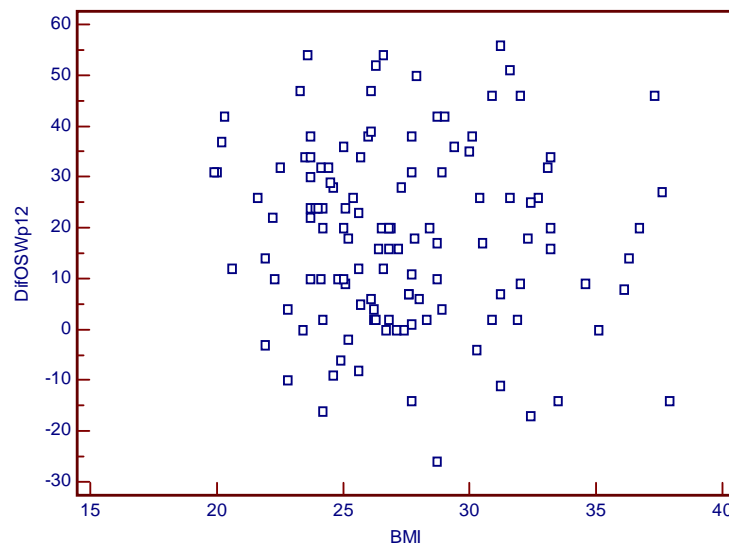
SF36



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6 weeks



1 year

Cor.Coeff.:
-0.17
(p=0.003)

Conclusion



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- In our sample, there seems to be at least a clear trend towards a weak negative impact of BMI on clinical outcome after monosegmental PLIF after one year.
- Longer Follow-Up and analysis of revision rates could show a clearer picture of the impact of BMI on outcome.