

Single-level vertebroplasty appears to have similar prognosis as multi-level procedures



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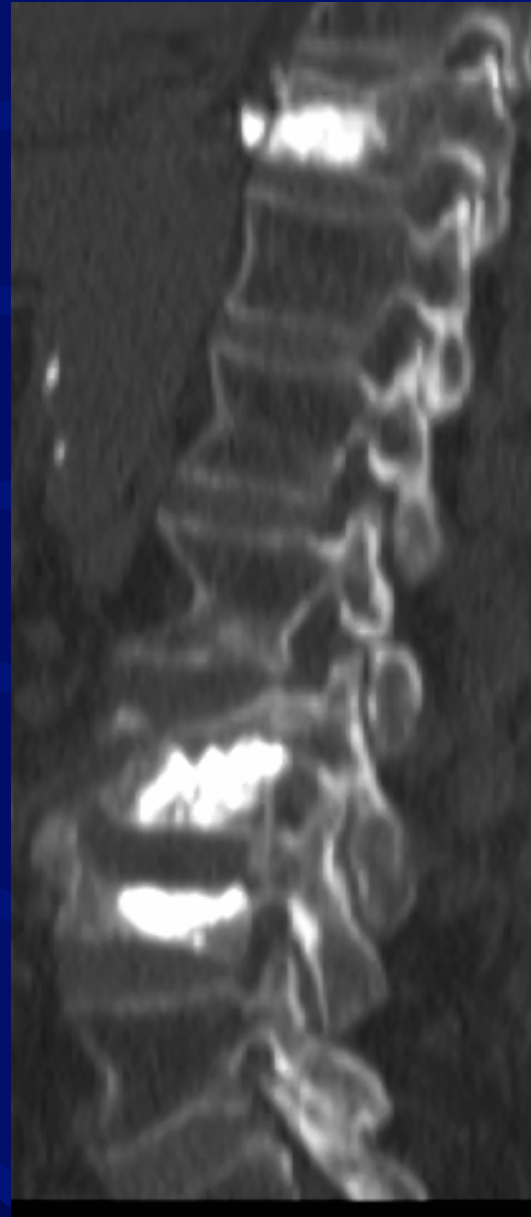
Background

- Success rate – over 80 %.
- Many patients have multiple vertebral fractures at presentation





T1W

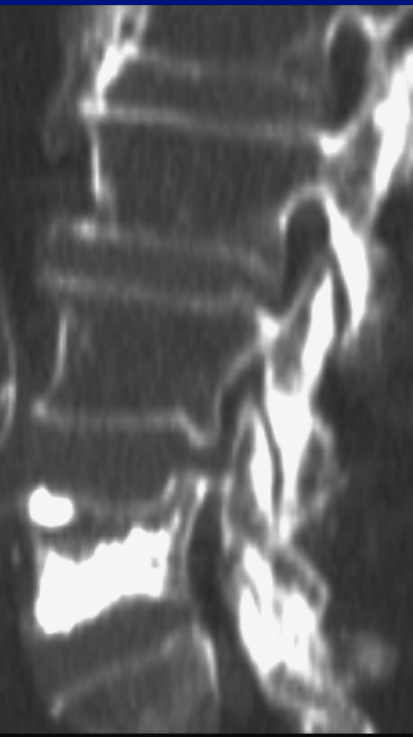


Post op CT

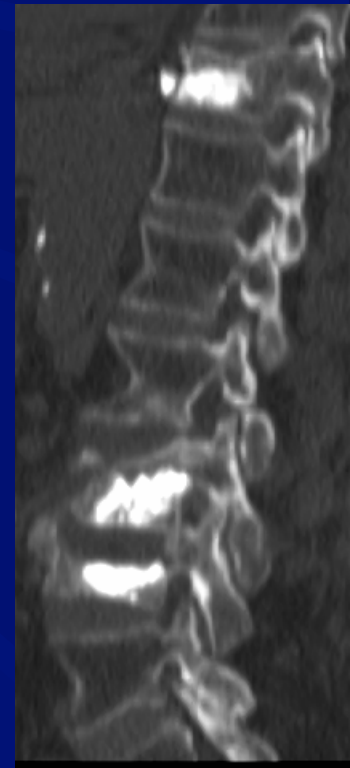
Purpose

Compare single and multiple level vertebroplasties

Single level



Multiple levels



Materials and methods

- 18 females
- 18 males
- Mean age 75 years (46 to 93 years)
- Follow-up 5 months (1 week to 25 months)

Materials and methods

- Single-level procedures: 33 (33 bodies)
- Multi-level procedures : 18 (51 bodies)

Etiology of vertebral fractures

- Osteoporosis 29 patients
- Metastasis 5 patients
- Multiple myeloma 2 patients

Evaluations

- Pain 0-6
- Medication 0-4
- Mobility 1-4

Outcome assessment

- Successful No to mild residual pain
- Improved Decreased pain
- Failure No change or worse

Results

| Outcome | Single-level N=33 | Multi-level N=18 |
|------------|----------------------|---------------------|
| Successful | 76 % | 67 % |
| Improved | 18 % | 28 % |
| Failure | 6 % | 5 % |

Wilcoxon rank sum test: p=0.55

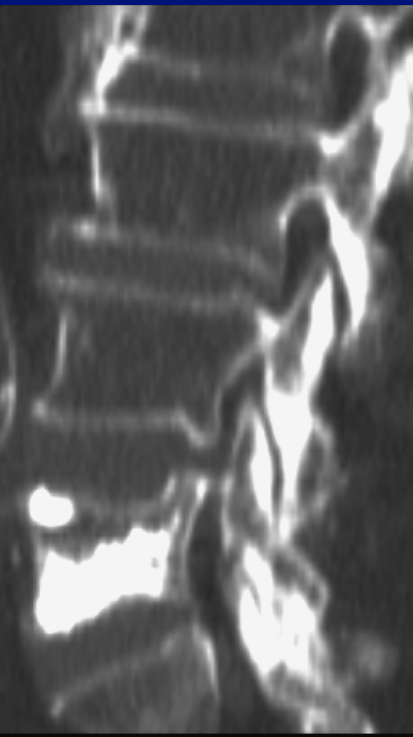
Pre vs. Post procedure

| | Pain | Medication | Mobility |
|--------------|-------------|-------------|-------------|
| Single-level | 4.6 → 1.4 * | 2.5 → 1.2 * | 2.3 → 1.5 * |
| Multi-level | 5.0 → 1.8 * | 3.1 → 1.4 * | 2.4 → 1.8 * |
| p-value | 0.89 | 0.38 | 0.53 |

*Wilcoxon rank sum test: * p<0.001*

Conclusion

Single level



Single-level vertebroplasty

appears to have similar prognosis
(76 %) as multi-level procedures
(67 %).

Multiple levels

