

Table 2. Kyphoplasty for Osteoporotic Vertebral Fractures – Outcomes

Study/yr	N	F/U	Outcome measure	Pre-treatment	Post-treatment	p-value ¹	Comments
<i>Case series</i>							
Ledlie 2003	96	1 wk to 1 yr (range)	Pain (0-10 VAS) % pts fully ambulatory	8.6 35	<u>1 wk(89)</u> 2.7 <u>1 mo(85)</u> 2.3 <u>3 mos(73)</u> 2.1 <u>6 mos(52)</u> 1.5 <u>1 yr(29)</u> 1.4 79 81 88 87 92	<0.0001 NR	(n) number of patients evaluated at specific time point
Coumans 2003	78	≥1 yr	Pain (0-10 VAS)	7	<u>Post-op</u> 3.2 <u>Last f/u (≥1 yr, mean 18 mos)</u> 3.4	<0.0001	n=40 at last f/u
			Disability (ODI, 0-100)	48	33 35	<0.001	
			SF-36: Phys Fxn	22	38	<0.005	
			Mental Hlth	51	64	<0.001	
			Gen Hlth	58	48	NS	
			Pain	20	42	<0.001	
			Vitality	27	36	<0.05	
			Social Fxn	36	58	<0.001	
			Role Phys	3	29	<0.005	
Lieberman 2001	30	12 wks	Role Emot	50	74	<0.05	
			SF-36: Phys Fxn	11.7	<u>Post-op</u> 47.4	0.002	
			Mental Hlth	59.2	71.1	0.02	
			Gen Hlth	55.0	61.0	NS	
			Pain	11.6	58.7	0.0001	
			Vitality	24.8	47.9	0.001	
			Social Fxn	28.6	69.0	0.0004	
			Role Phys	1.2	29.8	NS	
Phillips 2003	29	NR	Role Emot	68.0	62.0	NS	(n) number of vertebrae in analysis
			Pain (0–10 VAS)	8.6	<u>1 wk(36)</u> 2.6* <u>1 yr(19)</u> 0.6**	*<0.0001 **<0.004	
Berlemann 2004	24	≥1 yr	Pain (0–10 VAS)	8.4	<u>Post-op</u> 3.8 <u>2 mos</u> 1.7 <u>1 yr</u> 1.5	NR	1 pt lost to long term evaluation

¹p-values for pre- post- (within-group) comparisons unless otherwise specified

Abbreviations: See Appendix Table

Table 2. Kyphoplasty for Osteoporotic Vertebral Fractures – Outcomes (cont’d)

Study/yr	N	F/U	Outcome measure	Pre-treatment	Post-treatment		p-value ¹	Comments
Crandall 2004	47	18 mos (mean)	Pain (0–10 VAS) Acute Chronic Medication use, Combined groups	7.3 7.3 5.4	<u>2 wks</u> 4.3 4.3 <u>last f/u</u> 3.6	<u>6 wks</u> 4.3 4.0 	0.001 0.001 0.001	“90% pain relief” Number of patients at later f/u not reported
Rhyne 2004	49	9 mos	Pain (0-10 VAS) Disability Score	9.16 19.3	<u>Post-op</u> 2.91 8.1		<0.05 <0.05	
Gaitanis 2004	32	9 mos	Pain (0-10 VAS) Oswestry (0–100)	8.5 60	<u>1 wk</u> 2.5 <u>1 mo</u> 1.5 28		0.001 0.001	Vertebral height also analyzed but not abstracted.
<i>Comparative studies</i>								
Kasperk 2005	40 20	6 mos	Pain (50-0 VAS): KP Ctrl EVOS (60-0): KP Ctrl	26.2 33.6 43.8 39.8	<u>3 mos</u> 42.4 33.9 52.7 45.1	<u>6 mos</u> 44.2 35.6 54.4 43.8	3mos: 0.012 6 mos: 0.007 3 mos: 0.205 6 mos: 0.031 (all between-group)	Vertebral height and kyphosis angle analyzed but not abstracted. Change in pain medication use not formally analyzed.
Komp 2004	19 17	6 mos	Pain (0-100): KP Ctrl NASS pain: KP (0-10) Ctrl NASS neuro: KP (0-10) Ctrl Oswestry: KP (100-0) Ctrl	91 91 5.4 5.2 1.1 1 84 82	<u>6 wks</u> 20 88 1.9 4.9 1.1 1.1 22 78	<u>6 mos</u> 25 83 2.0 4.8 1.1 1.1 24 76	NR	Uncertain whether outcome measures represent mean or median

¹ p-values for pre- post- (within-group) comparisons unless otherwise specified

Abbreviations: See Appendix Table