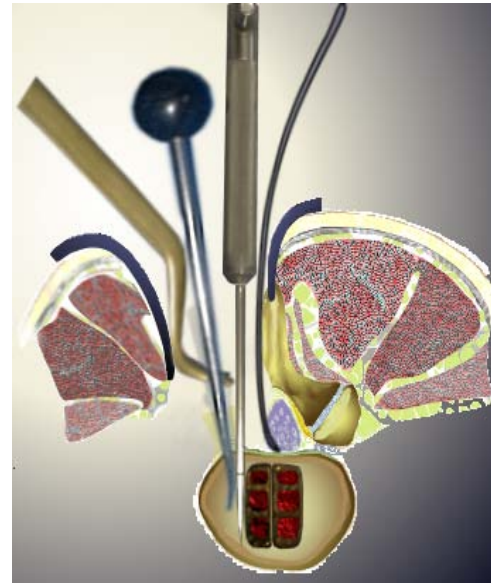
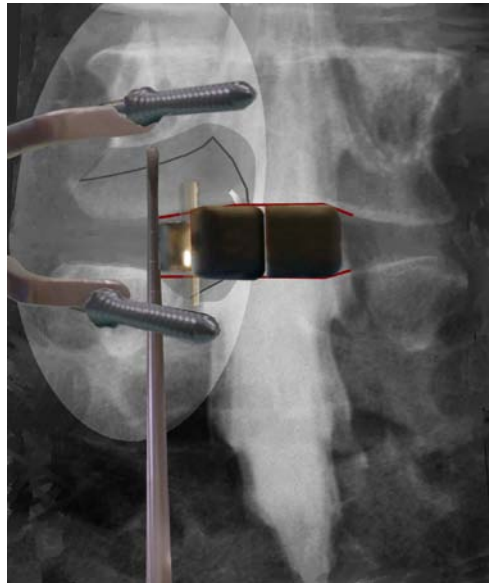


DO CARBON-COMPOSITE FIBER CAGES BEHAVE DIFFERENTLY FROM PEEK CAGES IN ADULT SPONDYLOLISTHESIS RECONSTRUCTION?



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 - Has received other financial support
 - Is an employee



Introduction

- Peek cages routinely used in 270° posterior reconstruction for lumbar spondylolisthesis
- Peek similar to OstaPek in ACDF (level 2) A. A. Siddiqui, A. Jackowski. *J Bone Joint Surg [Br]* 2003;85-B:1019-25. Cage versus tricortical graft for cervical interbody fusion. A prospective randomised study.
- OstaPek effective in lumbar spondylolisthesis (level 3) Ito Z, Matsuyama Y, Sakai Y et al. *Spine (Phila Pa 1976)*. 2010 Oct 1;35(21):E1101-5. Bone union rate with autologous iliac bone versus local bone graft in posterior lumbar interbody fusion.



Objective

- To test the hypothesis of better clinical outcome / lower complication rate with OstaPek versus Peek cages in adult LS
- Level 2 evidence study (prospective non randomised case-control study)
- Single surgeon, ≥ 5 yrs experience with PSF + PLIF/TLIF



Materials & Methods

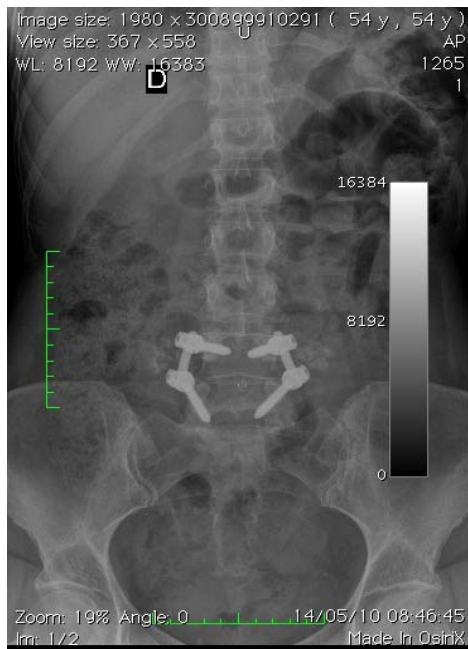
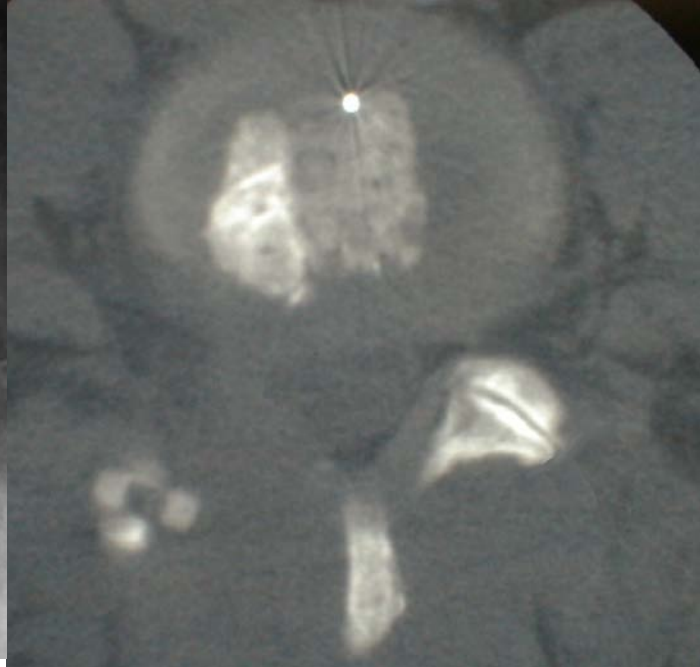
- Inclusion: symptomatic L spondylo, isthmic or degenerative, conservative treatment for ≥ 6 months, 18-65 yrs
- Exclusion: no radicular pain or claudication, previous back surgery, systemic disease
- Group 1: PSF with titanium pedicle screws + PLIF with OstaPek cages
- Group 2: same as above with Peek cages



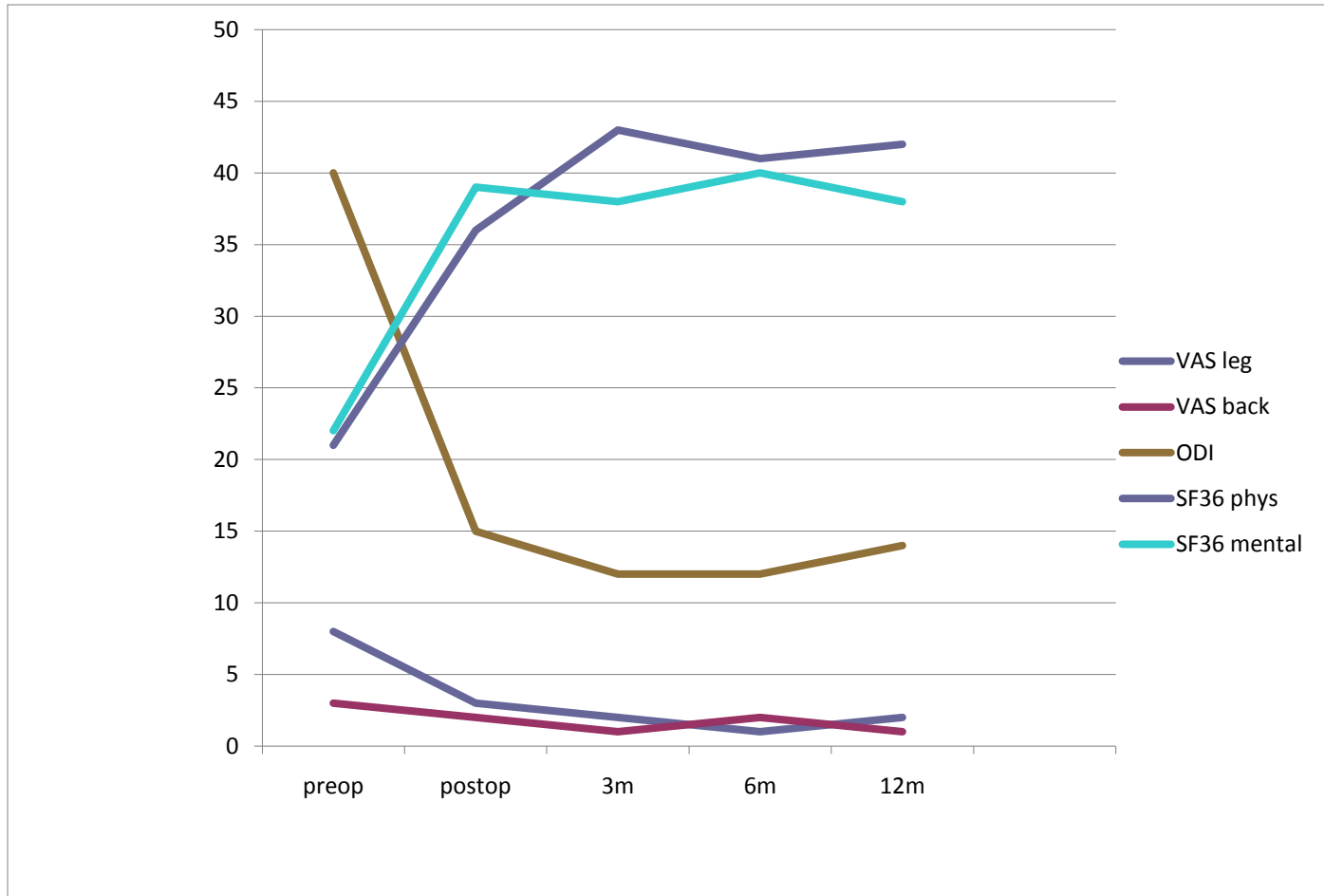
Results

	OSTAPEK	PEEK	P value
Age (yrs)	49± 12	50 ± 12	n.s.
F-up (mths)	15± 3	15 ± 3	n.s.
Sex (M:F)	3:7	4:6	n.s.
Duration of pain (MONTHS)	11 ± 5	12 ± 6	n.s.
Level of LS	L3/4: 1 L4/5: 6 L5/S1: 3	L3/4: - L4/5: 6 L4/S1: 4	n.s.
Number of cases	14	16	n.s.

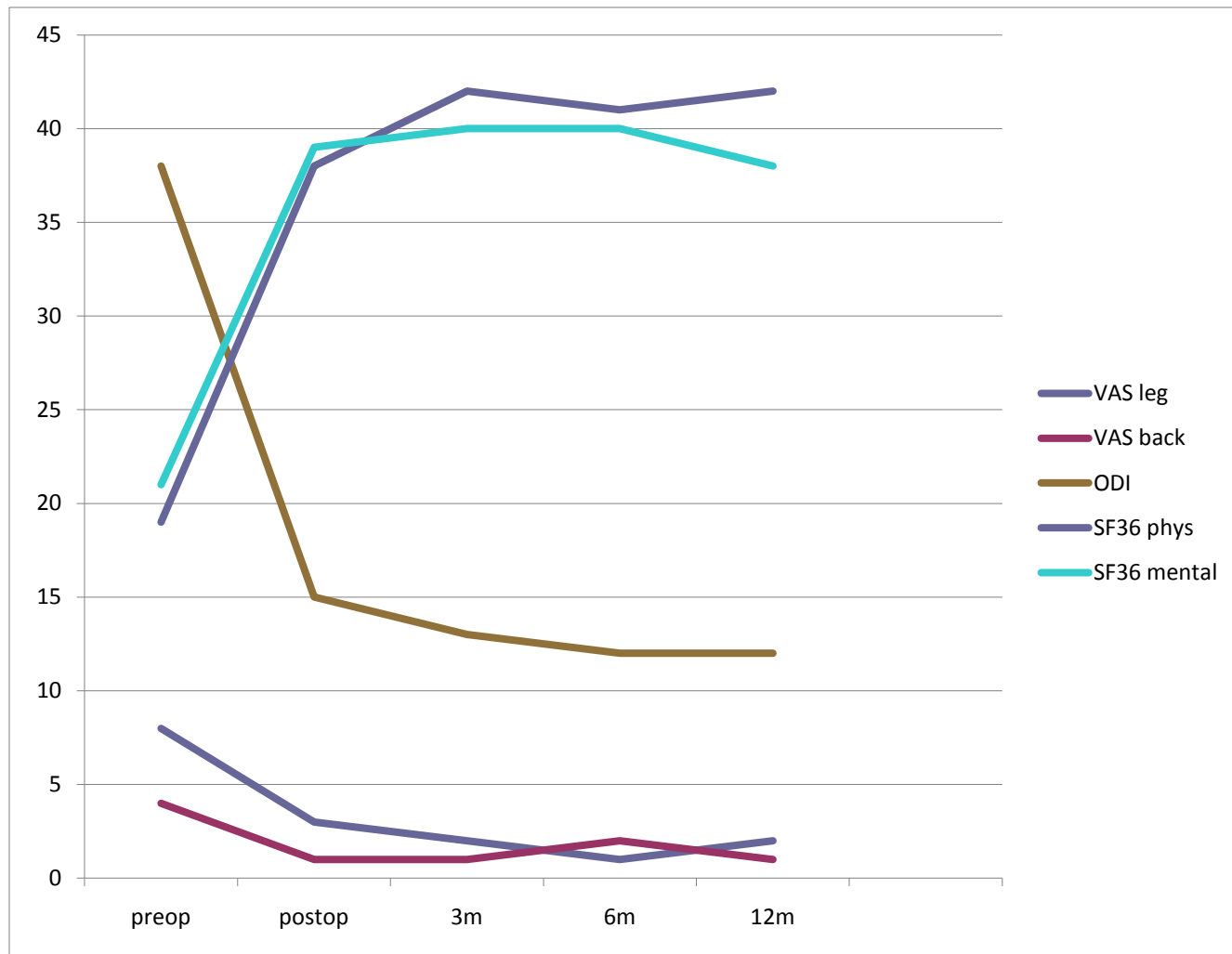




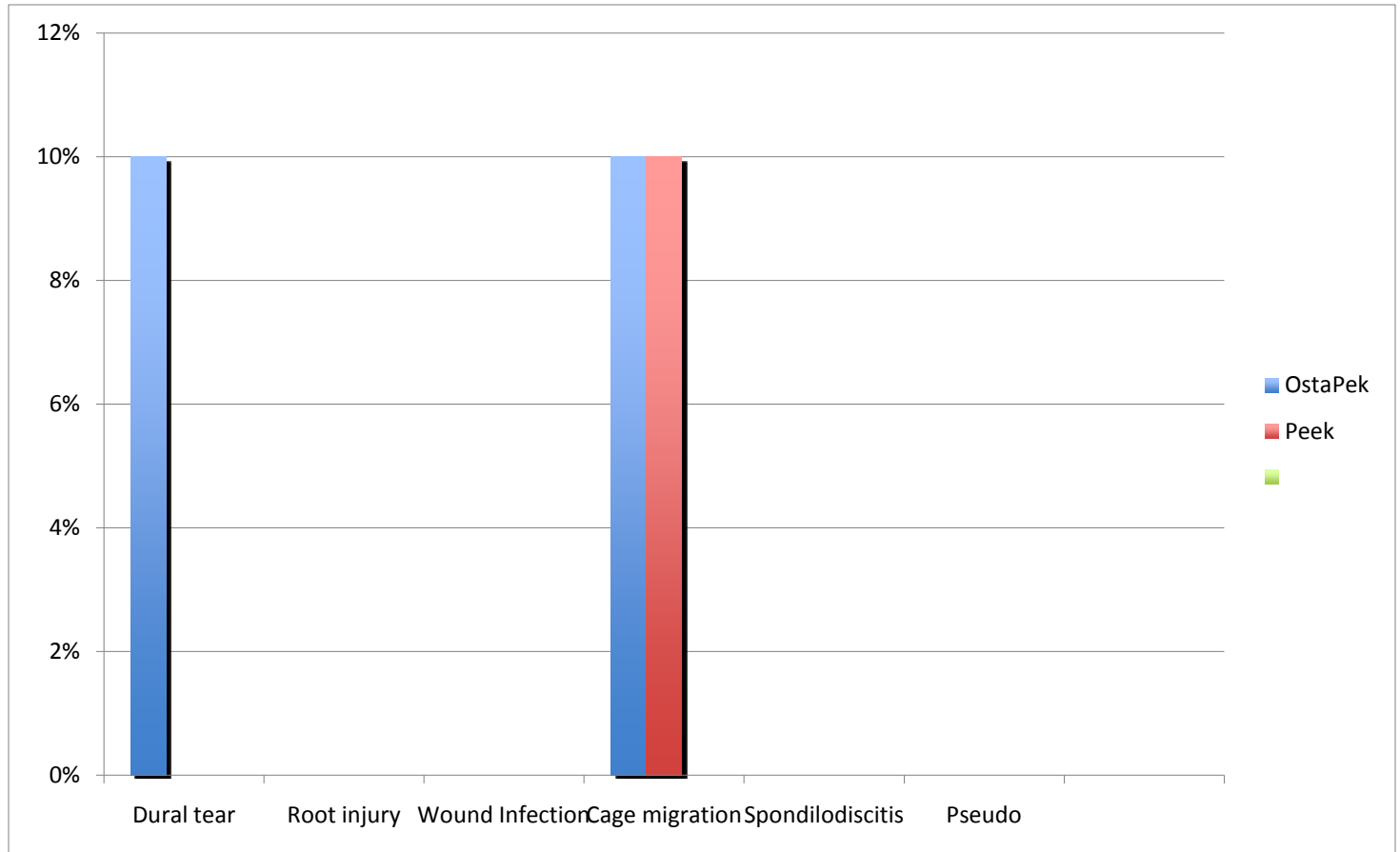
Group 1 (carbon-Ostapek)



Group 2: Peek



Complications



Discussion

- Similar clinical scores: sample size effect ? – replies literature so far
- Similar fusion rate – replies literature
- Cage subsidence: osteopenia



Conclusions

- OstaPek equals Peek in clinical scores @ 12 months f-up
- Similar complication rate
- Longer f-up will tell true story

