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DHS

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DHS		DHS				
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						-
						:
(DHS)						
			(		DHS)	
			barrel		cut-out	
						:
	%	cut-out		/ ± /		± /
(P < /)	/ ± /		/ ± /			(P < /)
	(P < /)	/ ± /		/ ± /		
			DHS			:
			DHS			:

()
Massie Clawson ()
()

h_khatibi @ IRIMC.org :

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	()	DHS	()
			Cut-out
	(-)		()
			()
()			
DHS			()
-	()		()
			()
			Harrington
		()	
31-A2			
()	OTA	biocompatible	()
			()
			pH
	(Dynamic Hip Screw)		()
	(DHS)		
jectos			
	(Kasios)		

Lag Screw

DHS

.()



(DHS)

(

toe-touch

DHS

DHS

()

 $\pm$ /

cut-out

.(P < /)

/ $\pm$ /

() barrel

(%)

(%)

() Iowa hip score

(P < /)

.(P < /)

cut-out

paired t-test

)

t-test

%

DHS

cut-out

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DHS

(%)

.(P< /)

.(P< /)

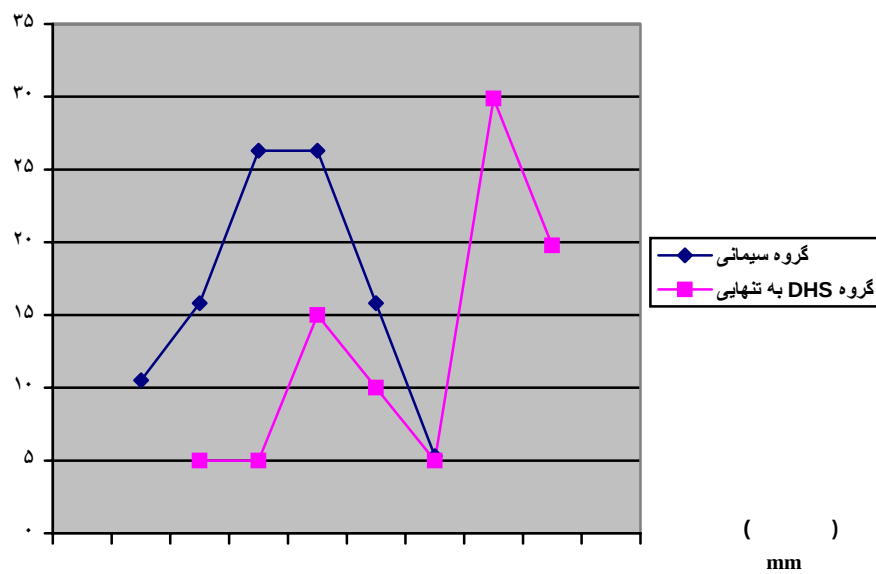
/ $\pm$ / mm

()

/ $\pm$ / mm

DHS

/ mm



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DHS

/ $\pm$ // $\pm$ /

cut-out

.(P< /)

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Stuart

/ $\pm$ /

SRS

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/ mm / mm

.(P< /)

/			
		cut-out	
			.()
	.()	DHS	
mm		Biaxauli	
Kim	()		
	mm		
	Bartucci		.()
cut-out			
cut-out		.()	Matsoon
		%	
		cut-out	SF-36
	.()		
		DHS	
			.()
			cut-out
			Muller
	.()	/ mm	
DHS			
		.()	/ mm
			Karrholm

REFERENCES

1. Mattsson P, Alberts A, Dahlberg G, Sohlman M. Resorbable cement for the augmentation of internally-fixed unstable trochanteric fractures. J Bone Joint Surg 2005; 87B: 1203-9.

2. Melton JL, Ilstrup DM, Riggs BL. Fifty-year trend in hip fracture incidence. *Clin Orthop* 1982; 62: 144-9.
3. Clawson DK. Trochanteric fracture treated by sliding screw plate fixation method. *J Trauma* 1964; 4: 737-52.
4. Massie WK. Extracapsular fractures of the hip treated by impaction using a sliding-nail plate fixation. *Clin Orthop* 1962; 22: 180-202.
5. Goodman SB, Bauer TW, Carter D. Norian SRS cement augmentation in hip fracture treatment: laboratory and initial clinical results. *Clin Orthop* 1998; 348: 42-50.
6. Larsson S, Thomas WB. Use of injectable calcium phosphate cement for fracture fixation: A review. *Clin Orthop* 2002; 395: 23-32.
7. Harrington KD. The use of methylmethacrylate as an adjunct in the internal fixation of unstable comminuted intertrochanteric fractures in osteoporotic patients. *J Bone Joint Surg* 1975; 57-A: 744-50.
8. Schildhauer TA, Bauer TW, Josten C. Open reduction and augmentation of internal fixation with an injectable skeletal cement for the treatment of complex calcaneal fractures. *J Orthop Trauma* 2000; 14: 309-17.
9. Horstmann WG, Verheyen CC, Leemans R. An injectable calcium phosphate cement as a bone graft substitute in the treatment of displaced lateral tibial plateau fractures. *Injury* 2003;34: 141-4.
10. Cassidy C, Jupiter JB, Cohen M. Norian SRS cement compared with conventional fixation in distal radius fractures. *J Bone Joint Surg Am* 2003; 85: 2127-37.
11. Choueka J, Koval KJ, Kummer FJ, Zukerman JD. Cement augmentation of intertrochanteric fracture fixation: a cadaver comparison of 2 techniques. *Acta Orthop Scand* 1996; 67: 153-7.
12. Yetkinler DN, Ladd AL, Poser RD, Constantz BR, Carter D. Biomechanical evaluation of fixation of intra-articular fractures of the distal part of the radius in cadavera: Kirschner wires compared with calcium-phosphate bone cement. *J Bone Joint Surg* 1999; 81-A: 391-9.
13. Orthopaedic Trauma Association. Fracture and dislocation compendium. *J Orthop Trauma* 1996; 10(1): 31-5.
14. Larson CB. Rating scale for hip disabilities. *Clin Orthop* 1963; 31: 85-93.
15. Muller FJ, Wittner B, Reichel R. Late results in the management of pertrochantric femoral fractures in the elderly with the dynamic hip screw. *Unfallchirurg* 1988; 91: 341-50 (in German).
16. Karrholm J. Roentgen stereophotogrammetry: review of orthopedic applications. *Acta Orthop Scand* 1989 ; 60: 491-503.
17. Baixauli F, Vincent V, Baixauli E. A reinforced rigid fixation device for unstable intertrochanteric fractures. *Clin Orthop* 1999; 361: 205-15.
18. Kim WY, Han CH, Park JI. Failure of intertrochanteric fracture fixation with a dynamic hip screw in relation to pre-operative fracture stability and osteoporosis. *Int Orthop* 2001; 25(6): 360-2.
19. Bartucci EJ, Gonzalez MH, Cooperman DR, Freedberg HI, Barmada R, Laros GS. The effect of adjunctive methylmetacrylate on failure of fixation and function in patients with intertrochanteric fractures and osteoporosis. *J Bone Joint Surg [Am]* 1985; 67(7): 1094-107.