

The following content was supplied by the authors as supporting material and has not been copy-edited or verified by JBJS.

Supplemental Table 1. Injury characteristics of both groups

Parameter	Overall cohort (n=486)			Matched cohort (n=258)		
	Acetabular fracture group (n=136)	Proximal femur fracture group (n=350)	p-value	Acetabular fracture group (n=129)	Proximal femur fracture group (n=129)	p-value
Mechanism of trauma						
Ground level fall	111 (82)	311 (89)	0,034	107 (83)	107 (83)	1
Fall from height >2 m	3 (2)	15 (4)	0,422	8 (6)	6 (5)	0,156
Sports accident	12 (9)	16 (5)	0,083	11 (9)	9 (7)	0.642
Motor vehicle accident	9 (7)	7 (2)	0,019	8 (6)	4 (3)	0,238
Associated injuries						
None	104 (78)	306 (87)	0,011	101 (78)	106 (82)	0,510
Pelvic fracture	6 (5)	3 (1)	0,013	6 (5)	2 (2)	0,145
Spine injury	1 (1)	6 (2)	0,681	6 (5)	4 (3)	0.592
Traumatic hip dislocation	12 (9)	0 (0)	<0,001	1 (1)	4 (3)	0.185
Traumatic THA dislocation	1 (1)	0 (0)	0,266	12 (9)	0 (0)	<0,001
Upper extremity fracture	9 (7)	28 (8)	0,848	7 (5)	17 (13)	0,04
Lower extremity fracture	3 (2)	5 (1)	0,444	3 (2)	2 (2)	0,228
Subdural or intracranial bleeding	5 (4)	6 (2)	0,172	4 (3)	2 ()	0,393
Cerebral concussion	2 (2)	8 (2)	1,000	2 (2)	2 (2)	0.981
Visceral organ damage	1 (1)	0 (0)	0,266	1 (1)	0 (0)	0,312

Values are given as absolute numbers with percentage in parenthesis (%) and were. compared with the chi² square test

Supplemental Table 2. Fracture pattern and surgical approaches for both study groups.

Parameter	Acetabular fractures (n=136)		Proximal femur fractures (n=350)	p-value
Fracture pattern	Simple fracture type	25 (18)	Medial femoral neck fracture	157 (45)
	Anterior wall	5 (4)	Lateral femoral neck fracture	23 (7)
	Anterior column	6 (5)	Pertrochanteric femur fracture	170 (48)
	Posterior wall	9 (7)		
	Posterior column	3 (2)		
	Transverse	2 (2)		
	Associated fracture type	111 (82)		
	Posterior column and posterior wall	1 (1)		
	T-shaped	11 (8)		
	Anterior column and posterior hemitransverse	55 (40)		
	Transversed posterior wall	5 (4)		
	Both columns	39(29)		
Surgical approach	Single approach	113 (82)	Single approach	347 (99)
	Pararectus	78 (57)	Anterior	116 (33)
	Modified Kocher-Langenbeck	6 (4)	Transgluteal	46 (13)
	Transgluteal	10 (7)	Anterolateral (Watson Jones)	34 (10)
	Trochanteric flip	16 ()	Subvastus	51 (14)
	Stoppa	3 (2)	PFN nailing approach	100 (29)
	Two combined approaches	23 ()	Two combined approaches	3 (1)
	Pararectus and trochanteric flip	8 ()	Anterior and transgluteal	3 (1)
	Pararectus and transgluteal	4 (3)		
	Pararectus and anterior	3 (2)		
	Pararectus and Smith-Peterson	3 (2)		
	Transgluteal and Kocher-Langenbeck	4 (3)		

	Smith-Peterson and Stoppa	1 (1)		
Type of surgery	ORIF	98 (73)	ORIF	87 (25)
	ORIF and THA	37 (27)	THA	64 (18)
			Hemiarthroplasty	88 (25)
			CRIF	111 (32)

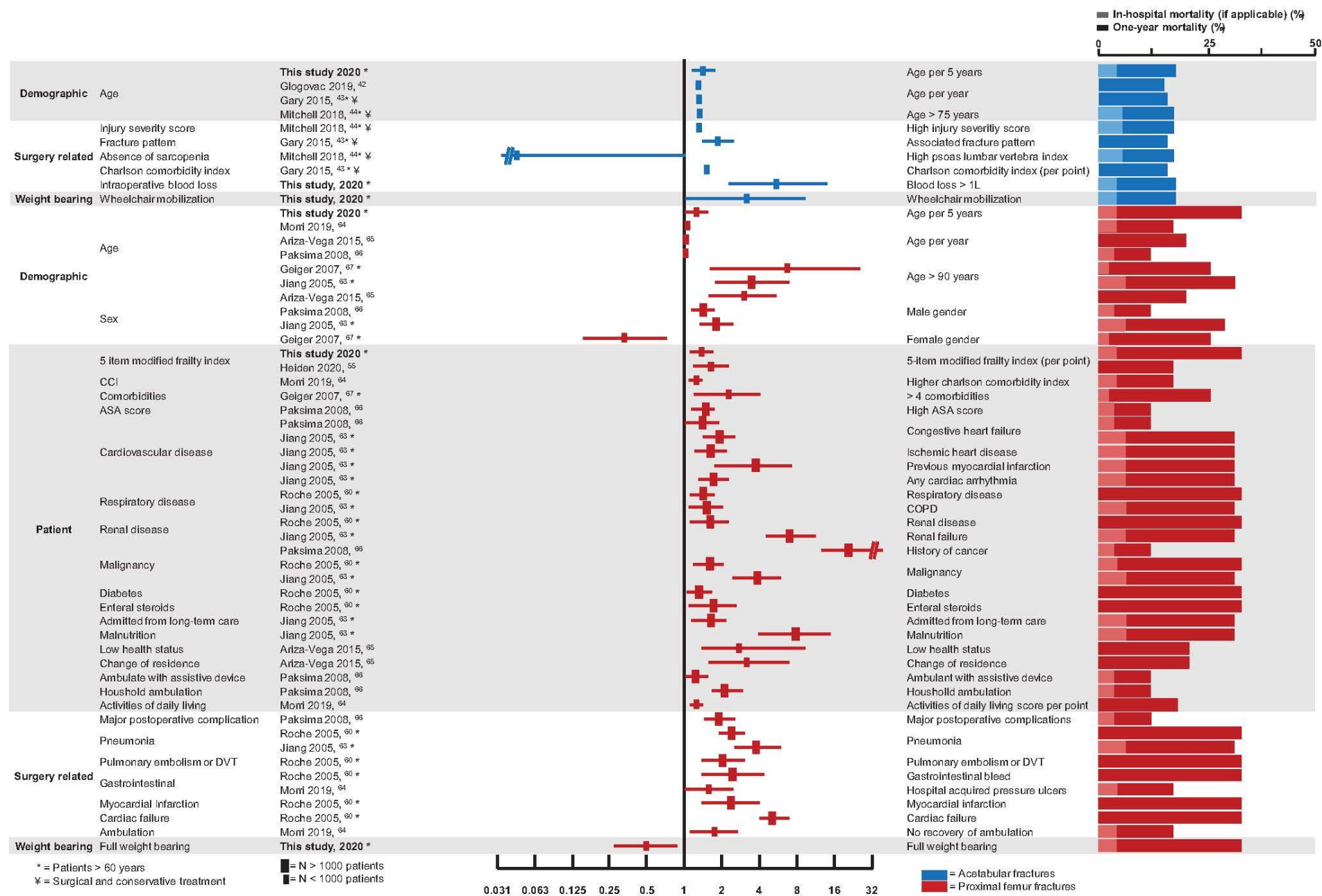
Values are given as absolute numbers with percentage in parenthesis (%). ORIF = Open reduction and internal fixation, THA = total hip arthroplasty, CRIF = closed reduction and internal fixation.

Supplemental Table 3. Literature overview. All studies including mortality analysis on geriatric acetabular fractures are shown. For the femur fractures, only studies with more than 1000 patients were included in the analysis^{41-63,69-71}.

Author, year	n	Age (year)	Sex (%male)	Type of treatment	Mortality rate			Complication rate					
					In hospital	30 d	1 y	I	II	III	IV	V	Overall*
Acetabular fractures													
Present study 2020	136	78 (61-97)	59%	Surg (THA/ORIF)	4%	6%	18%	2%	63%	2%	7%	4%	68%
Borg ⁴⁵ 2019	27	72 (50-89)	63%	Surg (THA/ORIF)	0%	0%	0%	0%	0%.	0%.	4%.	0%	4%
Deren ⁴⁶ 2017	99	75	62%	Surg (THA/ORIF)	8%.	-	19%.	15%	26%	1%	18%	8%.	35%
Carroll ⁴⁷ 2010	93	67 (56-89)	55%	Surg (THA/ORIF)	1%	-	-	3%	19%	15%	2%	1%	40%
Giunta ⁴⁸ 2019	27	68 (57-84)	85%	Surg (THA)	7%	7%	7%	74%	33%	7%	48%	7%	74%
Rickman ⁴⁹ 2014	24	77 (63-90)	77%	Surg (THA)	4%	-	14%	-	-	8%	4%	4%	8%
Mouhsine ⁵⁰ 2002	27	79 (65-93)	-	Surg (THA)	0%	0%	8%	0%	0%	0%	0%	0%	0%
Firoozabadi ⁵¹ 2016	57	77 (65-97)	72%	Surg (ORIF)	-	-	12%	-	-	-	-	-	-
Gibbons ⁵² 2019	36	73 (65-85)		Surg (ORIF)	5%	-	-	-	-	-	-	-	-
Glogovac ⁴² 2019	183	76 (65-98)	66%	Surg (ORIF)		6%	15%	-	-	18%	-	-	-
Khoshbin ⁴¹ 2020	303	78	40%	Surg (ORIF)	7%	7%	-	0	6%	1%	2%	7%	18%
Laflamme ⁵³ 2011	21	64 (55-82)	81%	Surg (ORIF)	5%	5%	5%	14%	10%	10%	5%	5%	38%
Archdeacon ⁵⁴ 2013	39	80 (70-96)	61%	Surg (ORIF)	0	-	8%	0%	5%	21%	8%	0%	26%
Dyskin ⁵⁵ 2019	109	78	64%	Surg (THA/ORIF/CRIF) Conservative	-	-	-	-	-	-	-	-	-
Gary ⁴³ 2015	454	74	67%	Surg (THA/ORIF/CRIF) Conservative	-	-	16%	-	-	-	-	-	-
Kim ⁶⁹ 2015	186	70 (60-96)	70%	Surg (THA/ORIF/CRIF) Conservative	7%	-	-	-	-	-	-	-	-
O'Toole ⁷⁰ 2014	118	>60	-	Surg (THA/ORIF/CRIF) Conservative	-	-	25%	-	-	-	-	-	-
Mouhsine ⁷¹ 2005	21	81 (67-90)	57%	Surg (CRIF)	0%	0%	8%	0%	0%	0%	0%	0%	0%
Gary ⁵⁶ 2012	75	73 (60-n.r)	66%	Surg (CRIF)	1%	-	13%	8%	6%	10%	23%	1%	41%
Bible ⁵⁷ 2014	104	69 (60-89)	74%	Surg Conservative	3%	3%	8%	-	-	-	-	-	-
Mitchell ⁴⁴ 2018	146	70 (60-93)	74%	Surg Conservative	10%	-	17%	-	-	-	-	-	-
Walley ⁵⁸ 2017	37	78 (66-94)	-	Surg	3%	-	19%	-	-	-	-	-	-
Ryan ⁵⁹ 2017	95	76 (60-94)	-	Conservative	-	-	24%	-	-	-	-	-	-
Proximal femur fractures													
Present study	350	(60-103)	41%	Surg (ORIF/THA/Hemiarthroplasty/CRIF))	4%	6%	33%	5%	37%	0.3%	3%	4%	38%
Zerah ⁶¹ 2020	1010	86	24%		-	6%	-	-	52%	2%	17%	-	n.a

Ottesen ⁶² 2018	4918	84 (77-90)	31%	Surg		6%		-	4%	60%	4%	7%	n.a
Roche ⁶⁰ 2005	2448	82 (60-103)	22%	Surg	-	10%	33%	4%	9%	4%	7%	-	59%
Jiang ⁶³ 2005	3981	82	18%	Surg	6%		31%						

Surg: surgical treatment; THA: Total hip arthroplasty; CRIF: Closed reduction internal fixation;*Overall: at least one or more complications



Supplemental Fig. 1. This forest plot describes a summary of the literature on multivariable predictive factors for acetabular (blue)^{42–44} and proximal femur fractures (red)^{25,26,51–55}