

Appendix Table II: Characteristics of included studies

First author, year	Number of centres, location	Study design; level of evidence	Patient sample size	Female n (%)	Age (y)	Follow-up (yr)	Clinical Condition	No. radial head excision patients	Global MINORS score
Boulas, ³ 1998	1, USA	retrospective cohort (3 branch); level III therapeutic	36	18 (50)	ORIF:37.3, non-op:37.4, excision:34.5, silastic:48.9	ORIF:3, non-op:3.3, excision:20.3, silastic replacement:6.7	radial head fracture	13	19
Coleman, ⁷ 1987	1, USA	prospective case series; level IV therapeutic	17	6 (35)	40 (16-77)	19.8 (8-46)	isolated closed fracture of the radial head not associated with dislocation of the elbow or another injury	17	10
Faldini, ⁸ 2012	1, Italy	case series; level IV therapeutic	42	12 (29)	34 (18-64)	18 (10-25)	unilateral, isolated, closed, displaced, or comminuted radial	42	12

							head fracture		
Fuchs, ⁹ 1999	1, Germany	case series; level IV therapeutic	151	63 (42)	40 (NR)	6 (NR-12)	comminuted fractures of the radial head	151	12
Gendi, ¹⁰ 1997	1, UK	retrospective case series; level IV therapeutic	95 (115 elbows)	93 elbows	55 (27-85) SD 13.3		rheumatoid arthritis	95	10
Goldberg, ^{50*} 1986	1, Israel	case series; level IV therapeutic	36	21 (58)	42 (18-75)	16.4 (3-27)	closed fracture of the radial head	36	11
Herbertsson, ¹⁶ 2004	1, Sweden	retrospective case series; level IV therapeutic	100	70	47	50	Radial head and neck fractures	19	12
Herbertsson, ¹⁵ 2009	1, Sweden	retrospective cohort; level III therapeutic	21	14 (67)	43 (18-68)	21 (14-46)	fracture of the radial head and neck	13	12
Herold, ¹⁷ 1995	1, Denmark	retrospective case series; level IV therapeutic	24 (11 follow up)	10	median 66 (44-80)	median 14 (12-15)	severe rheumatoid arthritis	24 (29 elbows)	11
Iftimie, ²¹ 2011	1, Spain	case series; level IV therapeutic	27	7 (26)	37 (18-61)	16.9 (10-24)	complex radial head fractures	27	12
Ikeda, ²² 2000	1, Japan	case series; level IV therapeutic	15	4 (27)	41 (25-70)	10 (3-18)	comminuted radial head fracture or a displaced	15	12

							fracture of the radial neck		
Ikeda, ²³ 2005	1, Japan	prospective cohort; level III therapeutic	28	10 (36)	excision: 41.1 (25-70), ORIF:38.2 (20-71)	excision: 10, ORIF: 3	radial head fracture (some with associated injuries)	15	13
Janssen, ²⁴ 1998	1, Netherlands	case series; level IV therapeutic	21	NR	NR	NR (6-30)	fracture of the radial head	21	13
Karlsson, ²⁶ 2009	1, Sweden	case series; level IV therapeutic	5	3 (60)	46 (22-69)	18 (16-21)	displaced radial head and neck fractures	5	9
Lindhovius, ²⁸ 2007	1, USA	retrospective cohort; level III therapeutic	28	13 (46)	ORIF:41 (21-60), excision: 48 (25-69)	17 (8-30)	unstable, displaced radial head fractures	15	20
Moore, ³¹ 1981	1, England	case series; level IV therapeutic	62	NR	NR	11 (NR)	fracture of the radial head	20	6
Morrey, ³³ 1979	1, USA	prospective case series; level IV therapeutic	13	7 (54)	34 (20-52)	20 (10-30)	fractures of the radial head	13	13

Postacchini, ³⁴ 1992	NR, Italy	retrospective cohort with prospective outcome data; level III therapeutic branches) (2	31	14 (45)	34 (20-57)	17.2 (6-31)	seventeen patients had a comminuted fracture of the radial head, and 11 had a displaced fracture of the radial neck. The remaining three patients had a marginal fracture of the radial head which was treated by removal of the fragment. Ten patients had other lesions in the same arm: 5 olecranon	28	11
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								fractures, 4 elbow dislocations, and 1 proximal ulnar fracture.		
Radin, ³⁶ 1966	1, United States	retrospective case series; level IV therapeutic	88	49	47 (24-75)	NR		closed isolated radial head fractures	6	10
Rymaszewski, ³⁸ 1984	1, Scotland	prospective case series; level IV therapeutic	37 (40 elbows)	32	56 (33-72)	6 (2-15)		severe rheumatoid arthritis	37 (40 elbows)	12
Sanchez-Sotelo, ³⁹ 2000	1, Spain	case series; level IV therapeutic	10	6	39 (26-57)	4.62 (2-7.17)		elbow fracture-dislocations with an unsalvageable comminuted radial head fracture and no other associated	10	12

							fractures		
Suarez, ^{51*} 2016	2, Uruguay	retrospective case series; level IV therapeutic	44	17	NR	minimum 1.5	Monteggia lesions	44	11
Taylor, ^{52*} 1964	1, UK	retrospective case series; level IV therapeutic	58	26	NR	7.5	comminuted or severely depressed marginal fractures (46), or fracture dislocations of the elbow (12)	58	11
Unlu, ⁴⁵ 2018	2, Turkey	Retrospective cohort; level III therapeutic	14	50	42.5	2.6	Isolated radial head fracture	7	6
Woods, ⁴⁷ 1999	1, England	prospective cohort with historical control; level III therapeutic	83 (90 elbows)	NR	NR	(10-20)	rheumatoid arthritis	45	17
Yalcinkaya, ⁴⁸ 2013	1, Turkey	case series; level IV therapeutic	13	8	38.8 (20-67)	14.7(9-26)	isolated radial head fractures	13	11

Zarattini, ⁴⁹ 2012	1, Italy	retrospective cohort; level III therapeutic	59	excision:14, ORIF:10	excision:41 SD 13.94, ORIF:40 SD 13.18	excision:13.08 SD 5.15, ORIF:10.4 SD 3.26	isolated radial head fractures	24	17
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***References of studies not in reference list:**

50. Goldberg I, Peylan J, Yosipovitch Z. Late results of excision of the radial head for an isolated closed fracture. *J Bone Joint Surg Am.* 1986;68(5):675-679.
51. Suarez R, Barquet A, Fresco R. Epidemiology and treatment of Monteggia lesion in adults: Series of 44 cases. *Acta Ortop Bras.* 2016;24(1):48-51.
52. Taylor TK, O'Connor BT. The effect upon the inferior radio-ulnar joint of excision of the head of the radius in adults. *J Bone Joint Surg Br.* 1964;46:83-88.