

Supplementary Table 1. List of included articles

Study group	PMID	Title	First author	Journal	Publication year	LOE	Country of study	Type of study	Implant design	MINORS score
Lateralized RSA	36737034	Clinical outcomes of anatomic vs. reverse total shoulder arthroplasty in primary osteoarthritis with preoperative rotational stiffness and an intact rotator cuff: a case control study	Hao et al.	J Shoulder Elbow Surg	2023	III	USA	Retro cohort	Onlay; L (MGLH+)	19/24
Lateralized RSA	32921945	Preoperative external rotation deficit does not predict poor outcomes or lack of improvement after reverse total shoulder arthroplasty	Parsons et al.	J Orthop	2020	IV	USA	Retro case-series	Onlay; L (MGLH+)	12/16
Lateralized RSA	29602633	The lateralization and distalization shoulder angles are important determinants of clinical outcomes in reverse shoulder arthroplasty	Boutsiadis et al.	J Shoulder Elbow Surg	2018	II	USA	Retro cohort	Onlay; L (MGLH+)	17/24
Lateralized RSA	29290604	Grammont humeral design versus onlay curved-stem reverse shoulder arthroplasty: comparison of clinical and radiographic outcomes with minimum 2-year follow-up	Merolla et al.	J Shoulder Elbow Surg	2018	III	France	Retro cohort	Onlay; L (MGLH+)	17/24
RSA with LDT	35922519	Reverse shoulder arthroplasty with isolated latissimus dorsi or combined with teres major transfer for lack of external rotation: a comparative study	Kazum E.	Int Orthop	2022	IV	France	Retro cohort	Onlay; VHL (LGLH+)	19/24
RSA with LDT	35599719	Mid-term outcomes after reverse total shoulder arthroplasty with latissimus dorsi transfer	Patel et al.	Shoulder Elbow	2022	IV	USA	Retro case-series	Inlay; ML (MGMH)/M (MGMH)	11/16
RSA with LDT	33517474	Mid- to long-term outcomes after reverse shoulder arthroplasty with latissimus dorsi and teres major transfer for irreparable posterosuperior rotator cuff tears	Valenti et al.	Int Orthop	2021	IV	France	Pro cohort	Onlay; VHL (LGLH+)	NA
RSA with LDT	34659465	Lack of elevation and external rotation in the shoulder: Reverse total shoulder arthroplasty combined with latissimus dorsi transfer to the humerus versus the greater tuberosity	Zafra et al.	Shoulder Elbow	2021	IV	Spain	Retro case-series	Inlay; M (MGMH)	19/24
RSA with LDT	30224206	Latissimus dorsi muscle transfer reduces external rotation deficit at the cost of internal rotation in reverse shoulder arthroplasty patients: a cohort study	Flury et al.	J Shoulder Elbow Surg	2019	III	Switzerland	Retro cohort	Inlay; ML (MGLH)	16/24
RSA with LDT	24132802	Reverse shoulder arthroplasty combined with latissimus dorsi transfer using the bone-chip technique	Ortmaier et al.	Int Orthop	2014	III	Austria	Pro cohort	Inlay; M (MGMH)	NA
RSA with LDT	23510632	Reverse shoulder arthroplasty combined with a latissimus dorsi and teres major transfer for a deficit of both active elevation and external rotation. Results of 15 cases with a minimum of 2-year follow-up	Boughebrei et al.	Orthop Traumatol Surg Res	2013	IV	France	Retro cohort	Onlay; VHL (LGLH+)	12/16

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Supplementary Table 1. Continued

Study group	PMID	Title	First author	Journal	Publication year	LOE	Country of study	Type of study	Implant design	MINORS score
RSA with LDT	18219547	Reverse shoulder arthroplasty combined with a modified latissimus dorsi and teres major tendon transfer for shoulder pseudoparalysis associated with dropping arm	Boileau et al.	Clin Orthop Relat Res	2008	IV	France	Retro case-series	Inlay; M (MGMH)	13/16
RSA with LDT	18061113	Modified latissimus dorsi and teres major transfer through a single delto-pectoral approach for external rotation deficit of the shoulder: as an isolated procedure or with a reverse arthroplasty	Boileau et al.	J Shoulder Elbow Surg	2007	IV	France	Retro case-series	Inlay; M (MGMH)	17/24
RSA with LDT	35248792	Proximal humeral bone defect in reverse shoulder arthroplasty combined with latissimus-dorsi transfer is not related with a poor outcome	Valenti et al.	Orthop Traumatol Surg Res	2022	IV	France	Retro case-series	Onlay; VHL (LGLH+)	12/16
RSA with LDT	31300368	Functional improvements in active elevation, external rotation, and internal rotation after reverse total shoulder arthroplasty with isolated latissimus dorsi transfer: surgical technique and midterm follow-up	Popescu et al.	J Shoulder Elbow Surg	2019	IV	France	Retro case-series	Inlay; ML (MGLH)	14/16
RSA with LDT	26175311	Reverse shoulder arthroplasty for massive rotator cuff tear: risk factors for poor functional improvement	Hartzler et al.	J Shoulder Elbow Surg	2015	III	USA	Retro case-control	Inlay; L (LGMH)	20/24

LOE: level of evidence, MINORS: Methodological Items for Non-Randomized Studies, RSA: reverse total shoulder arthroplasty, MG: medialized glenoid, LH+: lateralized humerus, LDT: latissimus dorsi transfer, LG: lateralized glenoid, VHL: very highly lateralized, ML: minimally lateralized, MH: medialized humerus, LH: minimally lateralized humerus, Lateralization system as classified by Werthel et al. [48].