

Functional outcomes after reverse shoulder arthroplasty. A systematic review comparing anterosuperior and deltopectoral surgical approaches.

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Reverse shoulder arthroplasty (RSA) was approved by the FDA in 2003 as an alternative surgical intervention to anatomical shoulder arthroplasty (TSA). Expansion in indications for this surgical procedure and increasing surgical expertise has likely contributed to the dramatic increase in its utilization over the past two decades. The most common surgical approaches for RSA are deltopectoral (DP) and anterosuperior (AS). The active and passive anatomical structures affected by these two surgical approaches differ drastically, which prompted us to systematically review the literature comparing their functional outcomes.

Electronic databases were searched (PubMed and Cochrane Library) according to PRISMA guidelines for studies directly comparing functional outcomes of the AS and DP approaches for RSA. Multiple functional outcomes were included according to their validity and reliability (Constant Score, OSS, DASH, ASES or WOSI). After screening, published articles that met the inclusion criteria were reviewed.

A total of 165 studies were obtained during our initial search, and 33 were selected for full-text review. Ultimately, 5 studies were included, consisting of three retrospective reviews, one prospective cross-sectional cohort, and one prospective randomized trial. The methodological quality of the included studies was assessed using the Methodological Index for Nonrandomized Studies (MINORS). Synthesized data from these studies will be presented.

Besides surgeon training/preference, DP and AS approaches both have advantages and drawbacks. Illustrating the comparison of functional outcomes between these two surgical approaches for RSA with relevant clinical information may assist surgeons in choosing the most appropriate technique for improved patient specific outcomes.