

COMPLICATION RATES FROM THREE COMMONLY USED REVERSE POLARITY TOTAL SHOULDER REPLACEMENTS: A MINIMUM TWO- YEAR FOLLOW-UP OF 64 CASES

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Abstract

Reverse polarity shoulder replacements are indicated in cases of glenohumeral arthritis with the presence of rotator cuff muscle dysfunction. Despite some studies demonstrating early improvement in function and pain, limited information still exists regarding the durability and longer term outcomes of these prostheses. The reported complication rates have been reported to range from 0–68%.

Post-operative clinical complication rates of three commonly used reverse polarity total shoulder replacements (Delta, Verso and Equinoxe) were evaluated against those mentioned in the literature to predict satisfactory outcome.

A retrospective review of 54 patients (3.5F:1M) and 64 operations (27L:37R) between 2004–2011 was carried out. Post-operative complications were searched for through medical records, the local hospital database (BLuespearIT) and the Picture Archiving and Imaging System (PACS). All operations were performed by two experienced consultant-grade orthopaedic shoulder surgeons.

The mean age at time of operation was 75.9 years (range 64–94). 33 Delta, 19 Equinoxe and 12 Verso prostheses were inserted. Three patients were excluded from the study due to insufficient information from medical records and radiography. Total complications were seen in 25 % of operated cases:- dislocation (6), fracture (4), deep infection (2), significant post-operative pain (1) and deltoid muscle dysfunction (3). Complications categorised according to prosthesis type were:- Delta (24%), Equinoxe (32%) and Verso (8%).

Short to medium term complication rates using reverse polarity total shoulder replacements are higher than the majority of the current literature suggests. The Verso is associated with the least number of complications which may correlate with its minimally invasive approach.

General