

CLINICAL ARTICLE SUMMARY

Stemless Shoulder Prosthesis Versus Conventional Anatomic Shoulder Prosthesis in Patients with Osteoarthritis

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Background:

The stemless shoulder prosthesis is a new concept in shoulder arthroplasty. To date, only a few studies have investigated the results of this prosthesis. The aim of this study was to investigate the clinical and radiological midterm results of this implant in comparison with a standard anatomic stemmed shoulder prosthesis.

Materials and Methods:

The Constant score, the DASH score, the active range of motion (abduction, anteversion, external rotation), and the radiological results were examined in 82 patients with primary osteoarthritis of the shoulder treated with either the Total Evolutive Shoulder System™ (Biomet, France) stemless shoulder prosthesis or the Affinis® (Mathys, Switzerland) stemmed shoulder prosthesis to detect possible differences in the functional outcome and to evaluate radiological properties of the implants. Patients were examined before and 32 ± 4 months after surgery.

Results:

There was no significant difference in the Constant scores of the groups treated with the stemless shoulder prosthesis (65.0 ± 11.0 points) and the stemmed shoulder prosthesis (73.2 ± 11.3 points; $P = 0.162$). The estimated blood loss ($P = 0.026$) and the mean operative time ($P = 0.002$) were significantly lower in the group with the stemless shoulder prosthesis.

Conclusions:

The use of the stemless shoulder prosthesis yielded good results which, in a mid-term follow-up, were comparable with those provided by a standard anatomic shoulder prosthesis. Further investigations are needed regarding the long-term performance of this prosthesis.

Reference:

Berth, A., Pap, G. Stemless shoulder prosthesis versus conventional anatomic shoulder prosthesis in patients with osteoarthritis: A comparison of the functional outcome after a minimum of two years follow-up. *J Orthopaed Traumatol* 2013; 14:31. <https://link.springer.com/article/10.1007/s10195-012-0216-9>



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