

Size measurement and flexion gap balancing in total knee arthroplasty—new benefits of the Attune™ system?

Patrick Sadoghi · Norbert Kastner

Received: 21 May 2013 / Accepted: 21 May 2013 / Published online: 26 June 2013
© Springer-Verlag Berlin Heidelberg 2013

To the Editor,

Although primary total knee arthroplasty (TKA) has been a procedure with high surgical success and various systems have revealed an outstanding long-term survival in recent decades [1], our patients still report knee pain or further problems in 20 % of cases [2, 3]. These cases are mostly caused by improper placement of the femoral shield or difficulties in balancing techniques [2, 3]. The Attune Total Knee Arthroplasty System (DePuy Synthes, Warsaw, IN) [4] was designed to address these cases by optimising guidance in femoral size measurement and flexion gap balancing using one single tool. The authors experienced benefits while measuring (1) flexion gap, (2) possible undercutting, and (3) cranio-caudal width of the femoral shield on the basis of the corresponding inlay in flexion in one surgical step. In addition, further narrow variants, minimising the medio-lateral width of the femoral shield, aid in more individual component placement as the system offers these options in four out of ten possible femoral sizes in contrast to one or no narrow variant (press fit condylar TKA or low-contact-stress TKA, DePuy Synthes, Warsaw, IN). After our initial experience as early users, we believe that the Attune TKA System offers an

appropriate solution for the flexion gap balancing technique in individual total knee arthroplasty. However, the authors have initiated a prospective controlled outcome trial to conclusively testify this initial impression.

With kind regards,

Patrick Sadoghi, MD and Norbert Kastner, MD

References

1. Kastner N, Gruber G, Aigner BA, Friesenbichler J, Pechmann M, Fürst F, Vavken P, Leithner A, Sadoghi P (2012) Sex-related outcome differences after implantation of low-contact-stress mobile-bearing total knee arthroplasty. *Int Orthop* 36(7):1393–1397
2. Kastner N, Gruber G, Sadoghi P (2012) Can we always trust in the computer? Adequate tibial alignment and flexion gap balancing using patient individualized knee arthroplasty cutting blocks. *Int Orthop* 36(11):2395
3. Carr AJ, Robertsson O, Graves S, Price AJ, Arden NK, Judge A, Beard DJ (2012) Knee replacement. *Lancet* 379(9823):1331–1340
4. DePuy Synthes (2012) ATTUNE Knee System. www.depuysynthes.com/intl/attune. Accessed 21 May 2013

P. Sadoghi (✉) · N. Kastner
Division of Arthroplasty, Department of Orthopaedic Surgery,
Medical University of Graz, Auenbruggerplatz 5,
8036 Graz, Austria
e-mail: patricksadoghi@gmx.at