

Gripper™

THE ASSISTANT IN A BOX

THE GRIPPER ALLOWS THE SURGEON TO CONTROL THE RETRACTOR WITHOUT EXTRA HELP FROM AN ASSISTANT



Opsomer et al.¹ have conducted a study comprising 43 consecutive THA's (Total Hip Arthroplasty) performed through a Direct Anterior approach were randomly allocated patients to be operated by 1 surgeon who used the Grippers™ (ORP) and 2 surgeons who used handheld retractors (HHRP). All the procedures were performed using an identical exposure technique. The same implants and instrumentation was used in all cases.

Surgical care accounts for nearly one-third of all the US and European health care spending. The most expensive part of the surgical care is the OR.

In this study it was found that use of the Gripper led to an average OR time saving of 17 minutes per case. Research has been conducted previously to examine the true cost of OR time, with estimates ranging from \$16.21 per minute to \$133.12 per minute.

Shippert et al.² found the mean cost to be \$62 per minute, and concluded "To save more than \$100 000, the surgeon has to save only approximately 7 minutes per case on 250 cases."

Also the blood levels of Creatinine Kinase (CK), C-Reactive Protein (CRP), Hemoglobin (Hb), Lactate Dehydrogenase (LDH) and Erythrocyte Sedimentation Rate (ESR) were measured at 1 hour pre and 24 and 48 hours post-operatively.

Morgenstern et al.³ concluded that a surgical assistant would have to assist in over 300 cases per year to be more cost effective than the Gripper™.

Moreover, the nature of the tool is such that it does not fatigue, does not have to adjust handhold, and it does not move, all of which surpasses a human assistant.

FINDINGS:

- The mean OR-time was 17 minutes longer in the HHRP (67') than the ORP trainee cohort (50') (p<0,05).
- Post-operative CRP levels were significantly higher in the HHRP cohort at 24h (p<0,05) and 48h postoperatively (p<0,05).
- The post-operative Hb-levels were significantly lower in the HHRP cohort at 24h (p<0,05) and 48h (p<0,05) post-operatively.
- Post-operative ESR levels were significantly higher in the HHRP cohort 48h post-op (p<0,05)
- No significant differences were found for the CK and LDH levels at any time postoperatively.

KEY TAKEAWAYS:

1. Standardised retractor placement with the Gripper reduces the OR time.
2. Standardised retractor placement with the Gripper reduces post-operative CRP levels.
3. Standardised retractor placement with the Gripper reduces blood loss.

1. *Orthostatic Retractor Positioning Reduces Operating Time And Post-Operative Inflammatory Response During The Learning Curve Of Anterior Approach THA G-J. Opsomer (MD)¹, K. Corten (MD, PhD), Hip Unit, Orthopaedic dept, Ziekenhuis Oost-Limburg Genk, Belgium*
2. *Shippert R. A Study of Time-Dependent Operating Room Fees and How to save \$100 000 by Using Time-Saving Products. J Cosmetic Surg 2005;22 (1):25-34.*
3. *The gripper™ table mounted retraction system: A tireless surgical assistant! Rachelle Morgenstern^a and Edwin P. Su^b (a. Adult Reconstruction & Joint Replacement Division, Hospital for Special Surgery, New York, NY, USA b. Weill Cornell Medical College, New York, NY, USA) SEMINARS IN ARTHROPLASTY 29 (2018) 134136*

THE GRIPPER™ SAVED **17 MINUTES** PER CASE IN THIS STUDY WHICH COULD LEAD TO ESTIMATED SAVINGS OF AROUND **\$105 400** BASED ON AN AVERAGE OR TIME COST OF \$62/MINUTE AND SURGEON VOLUME OF 100 CASES/YEAR.