

Patient-Reported Outcome Measures (PROMs) For Total Hip Arthroplasty With A Minimally Invasive Direct Anterior Approach (DAA-MIS). Preliminary Results Of A Prospective Study In 742 Patients.

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Background

Total hip arthroplasty (THA) has revolutionized the treatment of hip arthritis. The direct anterior approach (DAA) has gained popularity in recent years for total hip arthroplasty (THA). Advocates of this approach consider its advantages to be the muscle-sparing nature of its internervous intervals, earlier restoration of gait kinematics, and low dislocation rates. Patient-reported outcome measures (PROMs) are increasingly used in clinical practice providing health care professionals with patients' perceptions and views of their health.

Objectives

Our main target was to evaluate Patient-Reported Outcome Measures in patients undergoing primary total hip arthroplasty with a minimally invasive direct anterior approach for hip osteoarthritis.

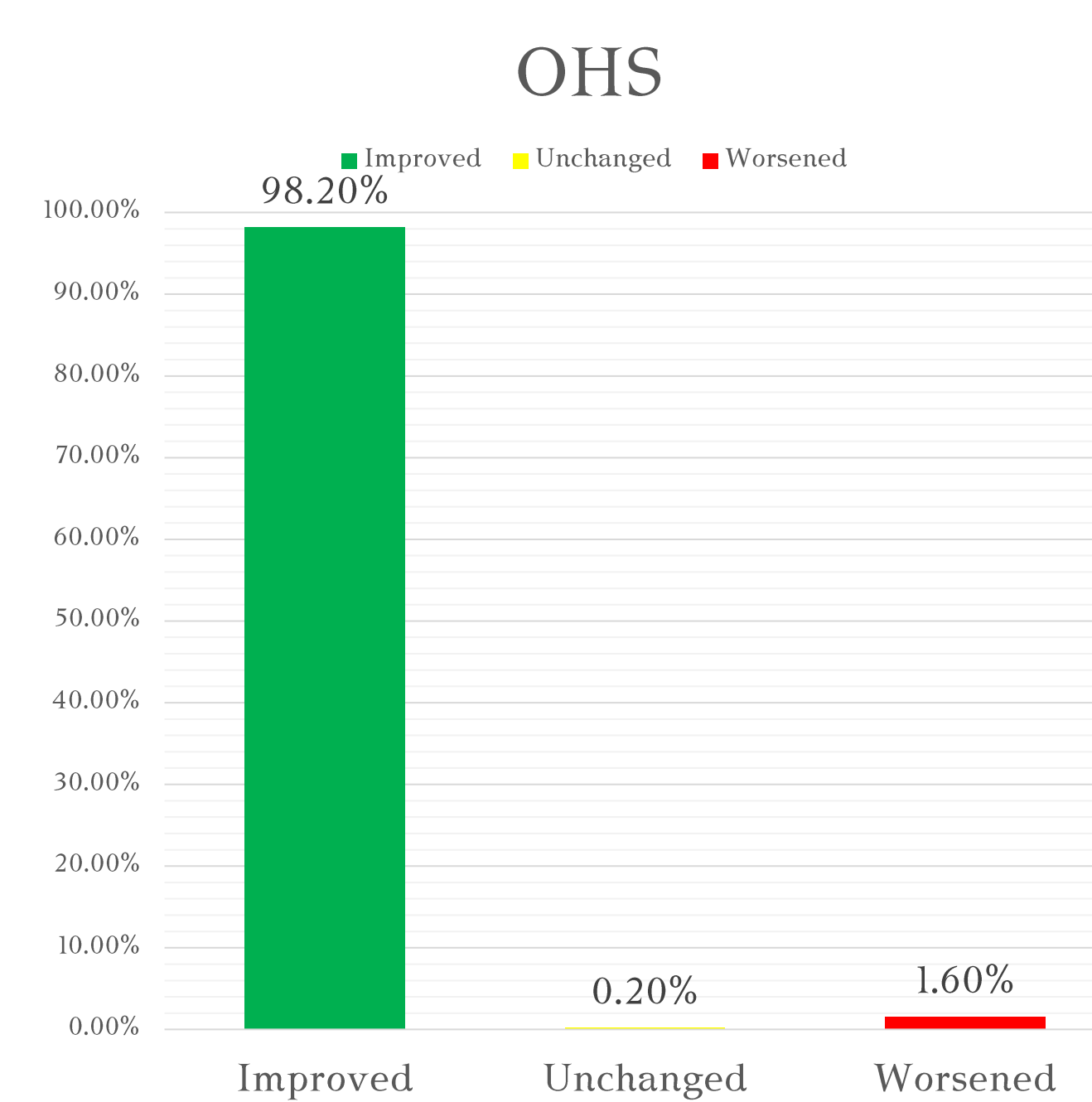
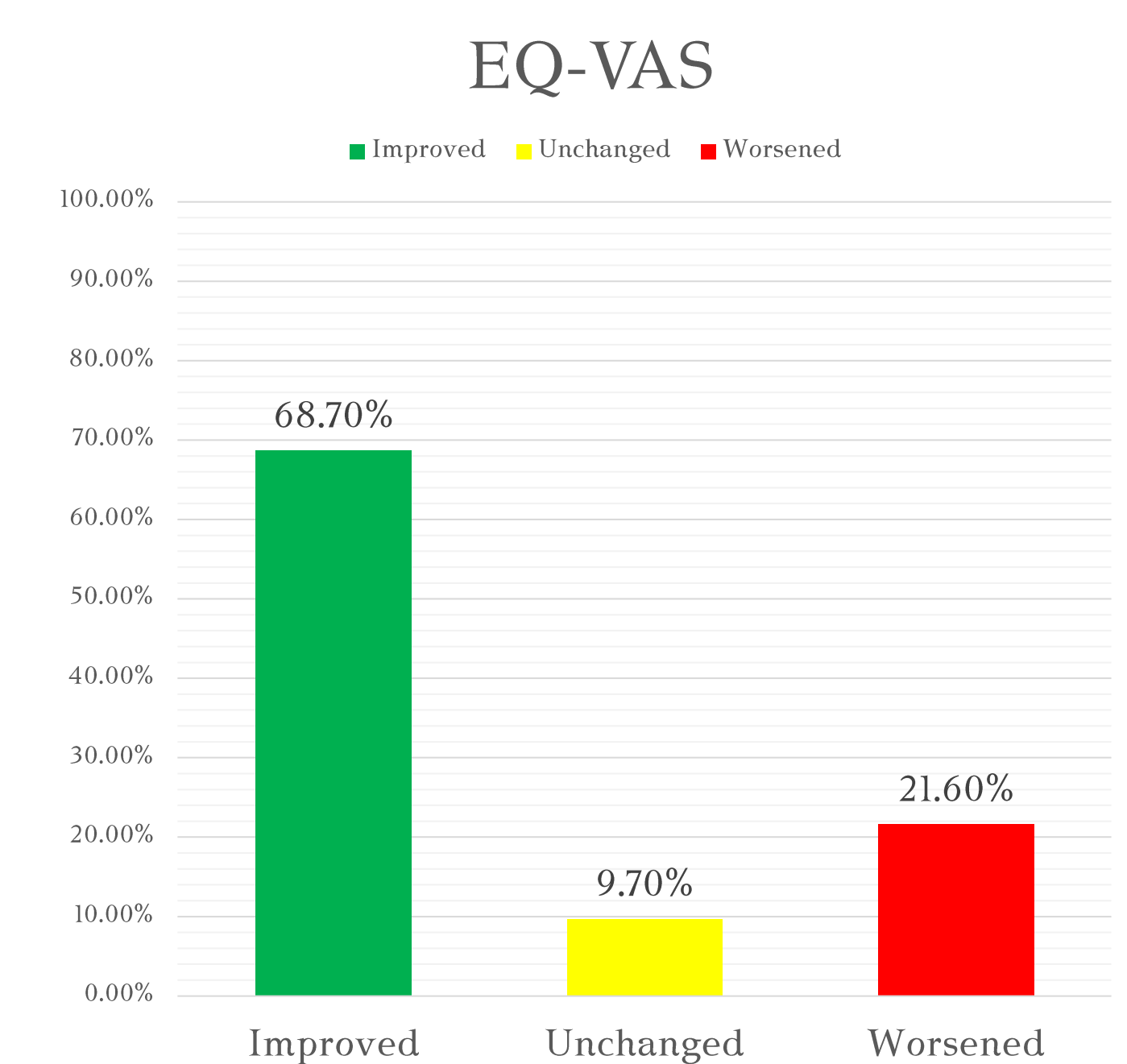
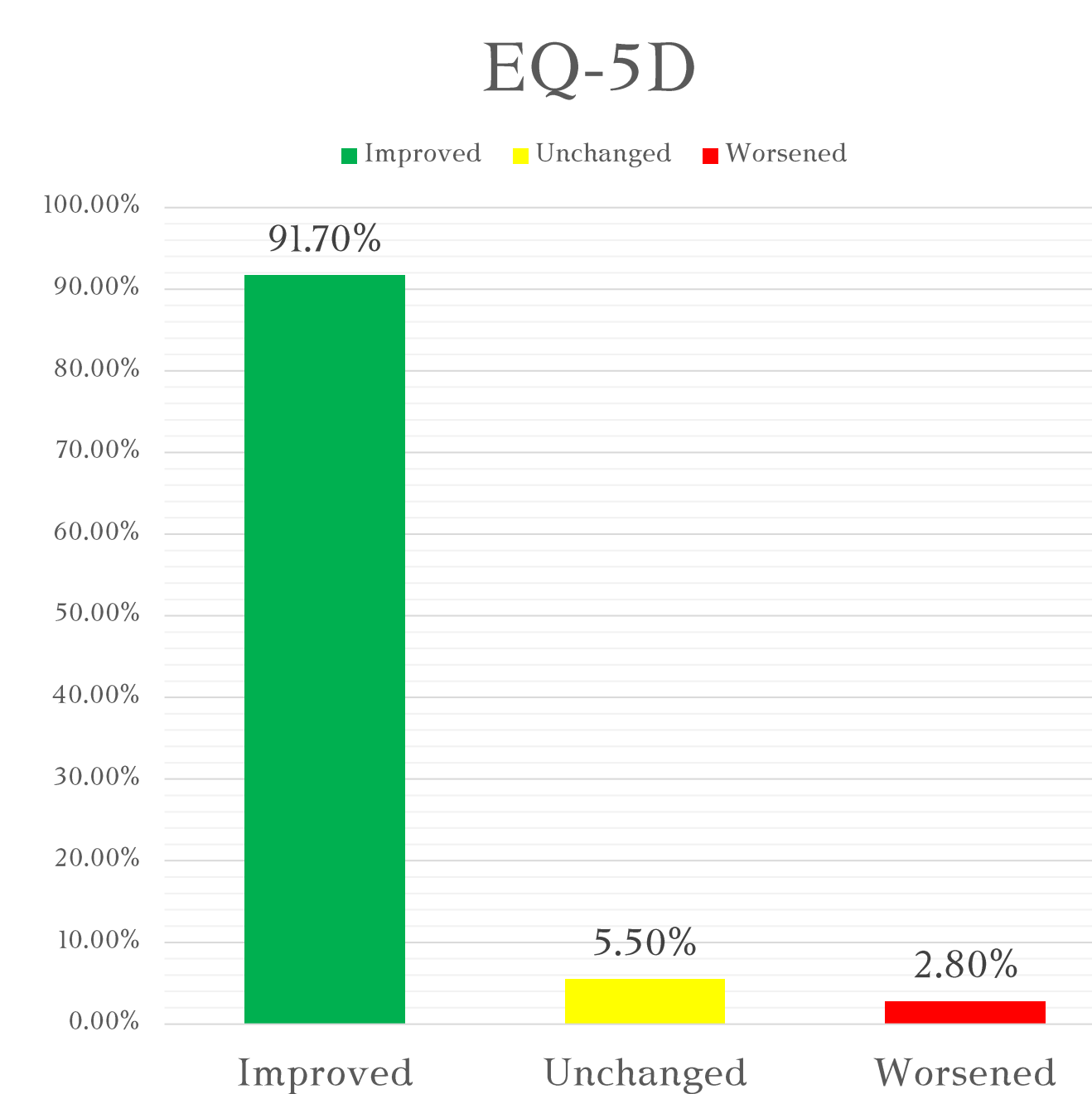
Study Design & Methods

Patients with hip osteoarthritis operated with DAA-MIS total hip arthroplasty by the same surgeon between January 2015 to December 2019 that were eligible, included in the study. PROMs were measured one week before the surgery and 4 months after and compared. These were for general health EQ-5D Index and EQ-VAS Score and for hip joint Oxford Hip Score (OHS). Demographics, as well as operation parameters, were also recorded for each patient. The sending, collection, recording, and analysis of the questionnaires were made by an independent team which included a physiotherapist and a nurse.

Results

742 patients (469 women - 273 men) returned the questionnaires correctly both pre- and post-operatively. The mean age was 65.7 years (range 34-91 years), and mean BMI was 31.3. The mean duration of surgery was 46 minutes, and the mean duration of hospitalization was 3.5 days (range 2-10 days). Patients were followed up for an average of 21.1 months. General health measured by EQ-5D Index, and EQ-VAS Score was shown improved at 91.7% and 68.7%, same at 5.5% and 9.7% and worsened at 2.8% and 21.6% of the patients, respectively. The average health gain on the EQ-5D Index was 0.498 and on EQ-VAS Score 12.537. Oxford Hip Score was improved at 98.2%, same at 0.2%, and worsened at 1.6% of the patients with an average health gain of 23.946.

Demographics	
n	742
Gender	469♀/273♂
Mean age (years)	65.7 (34-91)
Mean BMI	31.3
THA duration (min)	46
Mean DoH (days)	3.5 (2-10)
Mean Follow-up	21.1 months



Average health gain	
EQ-5D	0.498
EQ-VAS	12.537
OHS	23.946

Conclusions

Total hip arthroplasty is a successful procedure for the treatment of painful hip osteoarthritis. Preliminary results of our study showed that total hip arthroplasty with a minimally invasive Direct Anterior Approach has a positive impact with significant health gains and improved Patient-Reported Outcome Measures for patients with hip osteoarthritis. Although our results compared to international literature showed the same or even better improvement rates, we have to wait until the finish of our study in order to extract a more valuable result for patient's satisfaction on DAA-MIS as well as the comparison between most known approaches for total hip arthroplasty.

