

Comparing Operative Times in Direct Anterior Versus Posterolateral Total Hip Arthroplasty

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Introduction

- Total hip arthroplasty (THA) is one of the most commonly performed procedures worldwide (1,2)
- Increased operative time is associated with (3-6):
 - Longer length of stay
 - Increased readmission rates
 - Increased reoperation rates
 - Increased medical/systemic complication rates
 - Increased blood transfusion rates
 - Increased surgical complication rates
- Surgical approach has been shown to contribute to operative time (7-9)
- Increased operative time has previously been associated with direct anterior (DA) approach as compared to posterolateral (PL) approach (7-9)
- Our goal was to compare THA operative times between DA and PL approaches at a single high-volume center

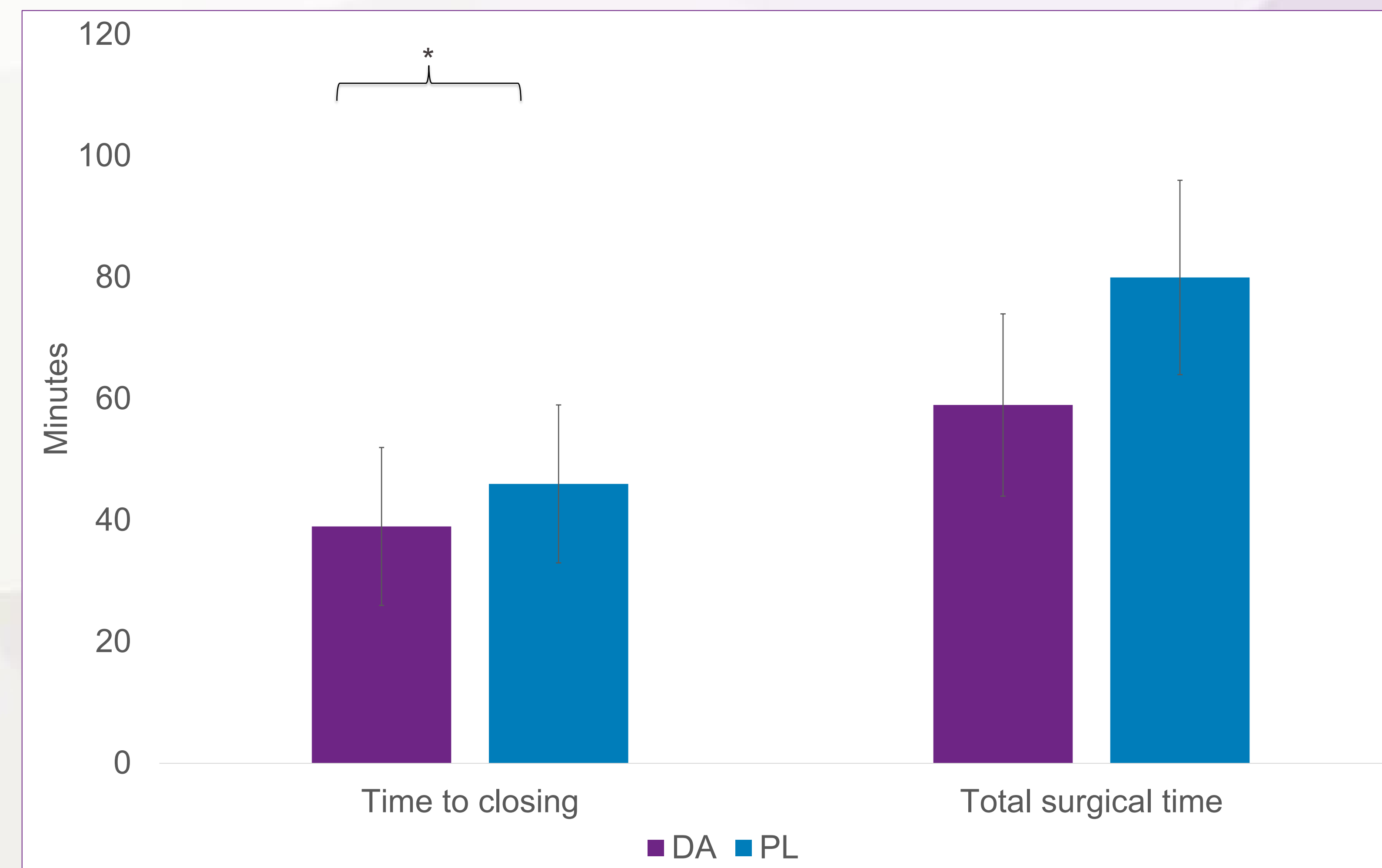
Methods

- Patients undergoing primary THA with one of fourteen high-volume arthroplasty surgeons at a single center during a 6-year period were identified
- Each included surgeon performed exclusively DA or PL approach for primary THA
- Patient characteristics, anesthesia type, and operative time were collected
- Chi-squared tests were used to compare categorical variables
- Student's t-tests were used to compare continuous variables

Table 1: Patient Characteristics

	Approach		P Value
	DA (n = 2989)	PL (n = 3029)	
Female (n, %)	1793 (60%)	1619 (53%)	<0.001
Age (mean, SD)	66.2 (9.7)	66.9 (9.8)	0.004
BMI (mean, SD)	30.0 (6.4)	29.3 (5.7)	<0.001
ASA	1: 30 (1%) 2: 2097 (70%) 3: 852 (29%)	1: 0 (0%) 2: 2111 (71%) 3: 867 (29%)	0.529
Spinal anesthesia (n, %)	2452 (88%)	2257 (78%)	<0.001

Figure 1: Mean Operative Time Based on Approach



Results

- 2,989 patients underwent DA THA (three surgeons)
- 3,029 patients underwent PL THA (eleven surgeons)
- The DA cohort had a significantly higher BMI than the PL cohort
- Significantly more DA patients underwent spinal anesthesia
- There was significantly greater time from incision to start of closure in the PL group
- There was significantly greater total surgical time in the PL group

Conclusions

- Contrary to previously published data, DA approach in primary THA was associated with significantly decreased operative times when compared to PL approach at a single high-volume center

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