

Takes Longer, but We Do a Good Job: Debunking the Learning Curve in DAA THA for Junior Attendings

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INTRODUCTION:

Several surgical approaches exist for total hip arthroplasty (THA). The direct anterior approach (DAA) has been cited to have benefits but may be associated with a learning curve. However, advanced training in the approach may eliminate that learning curve. No study exists comparing new surgeons who had specific training in the DAA in fellowship with senior DAA surgeons. We hypothesized that there would be no difference in complications between the groups.

METHODS:

A retrospective cohort study was performed including 600 primary THAs from a single institution between 02/2020 - 11/2024. Two groups were formed: one group included the first 100 cases of each of three junior fellowship-trained arthroplasty surgeons (Junior) and the second group included the most recent 300 cases of a senior fellowship-trained arthroplasty surgeon (Senior). Between the groups intra-operative and post-operative complications were compared. All elective primary THAs with at least 90-day follow-up were included.

RESULTS:

Rates of intra-operative complications were not significantly different between groups (Junior =0.74%; Senior =0.33%; P = .49) nor were post-operative complications (Junior =5.96%; Senior =3.33%; P = .13). Further subgroup analysis also yielded no significant difference in post-operative complications; periprosthetic fractures (Junior =1.49%; Senior=1.00%; p = .65), dislocations (Junior=1.12%; Senior =0.33%, p = .27), PJI (Junior =0.74%; Senior=0.33%, p = .49) at 90 days. No significant difference was observed in return to OR (Junior=1.49%; Senior=2.00%, p = .64). Operative times were significantly shorter for the Senior surgeon group than the Junior group (91.1 vs 68.6 minutes (p<0.001)).

DISCUSSION AND CONCLUSION:

Our data suggests that fellowship-trained DAA surgeons starting out in practice have no difference in operative complication rates when compared with a Senior DAA surgeon, although they do have longer operative times. This demonstrates that newly graduated fellows trained in this approach may not have a learning curve in practice in terms of operative complications.