

Total Hip Arthroplasty in Octogenarians. An Age Based Analysis of Complications and Outcomes.

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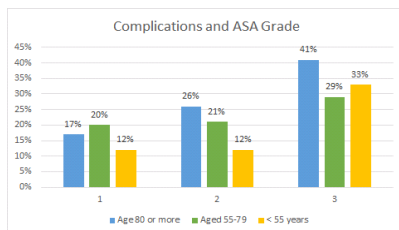
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Introduction: The aim of this study was to document the incidence of complications in a population of subjects undergoing elective total hip arthroplasty (THA) across 3 age groups: 80 years or more, 55-79 years and those <55 years.

Methods: 100 consecutive subjects from each of the 3 age groups: 80 or more, 55-79 years and <55 years who had undergone elective THA between September 2015 and June 2018 were identified from a prospective database. Medical records were reviewed to determine the frequency of post operative complications in each cohort. All subjects completed patient reported outcome measures before and 1 year after surgery.

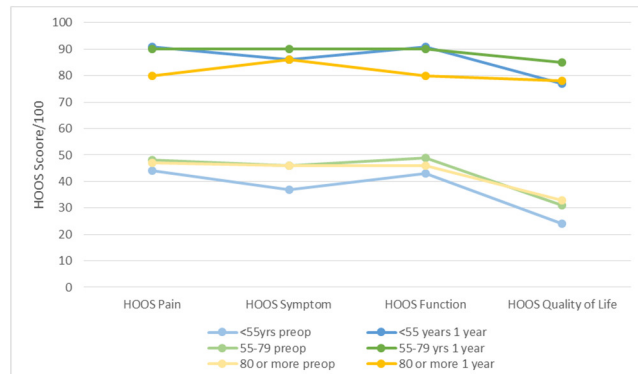
Results: The frequency of complications increased with ASA grade for all age groups (Figure 1). The >80 years group showed a statistically significant higher number of complications at 35%. The most common



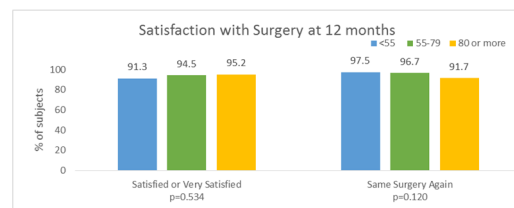
complications in octogenarians were DVT, cardiac

events, electrolyte disturbances and anaemia. On regression analysis, ASA grade increased the odds of any complications, and age was not a significant predictor, when controlled for ASA grade (Table 1). All groups improved mean HOOS scores between preoperative and 1 year after surgery ($p < 0.001$). Before surgery the <55 year group had a significantly lower mean Symptom ($p = 0.001$) and Quality of Life Score ($p = 0.003$). At 1 year after surgery the

<55 year experienced a significantly greater improvement in Symptom Score ($p = 0.005$) and Function score (0.002), compared to the 55-79, and 80 or more groups.



There was no significant difference between the three age groups for the level of satisfaction with surgery, or the proportion that would have the same surgery again.



Conclusions: The frequency of complications after THA increases progressively with increasing age. Octogenarians have 1.7 x greater incidence of complication compared to the those 55-79 years. However, ASA grade is a more significant predictor of complications than being an octogenarian. Older age is not associated with lower rates of satisfaction with surgery or poorer pain scores. However, greater improvement in symptom and function score was seen in those <55 years. Being an Octogenarian should not be a deterrent to THA in appropriately selected subjects.

| | | Any Complications | Odds Ratio | 95% CI | P |
|-----------|------------|-------------------|------------|------------|-------|
| ASA Grade | Grade 1-2 | 18% | 2.8 | 1.3 to 5.7 | 0.006 |
| | Grade 3-4 | 43% | | | |
| Age | 80 or more | 34% | 1.7 | 0.9 to 3.2 | 0.114 |
| | <80 years | 17% | | | |