Direct Anterior Total Hip, Significantly Lower Rates of Deep Vein Thrombosis and Pulmonary Embolism

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Disclosures

- No conflicts of interest to disclose

Introduction

- Deep Vein Thrombosis (DVT) and Pulmonary Embolism (PE), together referred to as Venous Thromboembolism (VTE) are serious, potentially fatal complications of Total Hip Arthroplasty (THA)
- There are many factors that are associated with increased risk of VTE
  - Hypercoagulable disorders
  - Prior VTE
  - Obesity
  - Delay in ambulation

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Purpose

- Looking to investigate if surgical approach is associated with a change in incidence of VTE

Methods

- Conducted a retrospective multicenter review of all primary and revision THAs that were performed between 2010 to 2018
- Looking for VTEs diagnosed within 90 days from surgery
- Risk factors associated with VTE
  - Primary vs revision
  - Surgical approach
  - History of VTE
  - Hypercoagulable disorders
  - Gender
  - Age
  - BMI
- Data analyzed using multivariate regression model to assess for risk factors
- Then a bivariate analysis to compare incidence of VTE between surgical approaches

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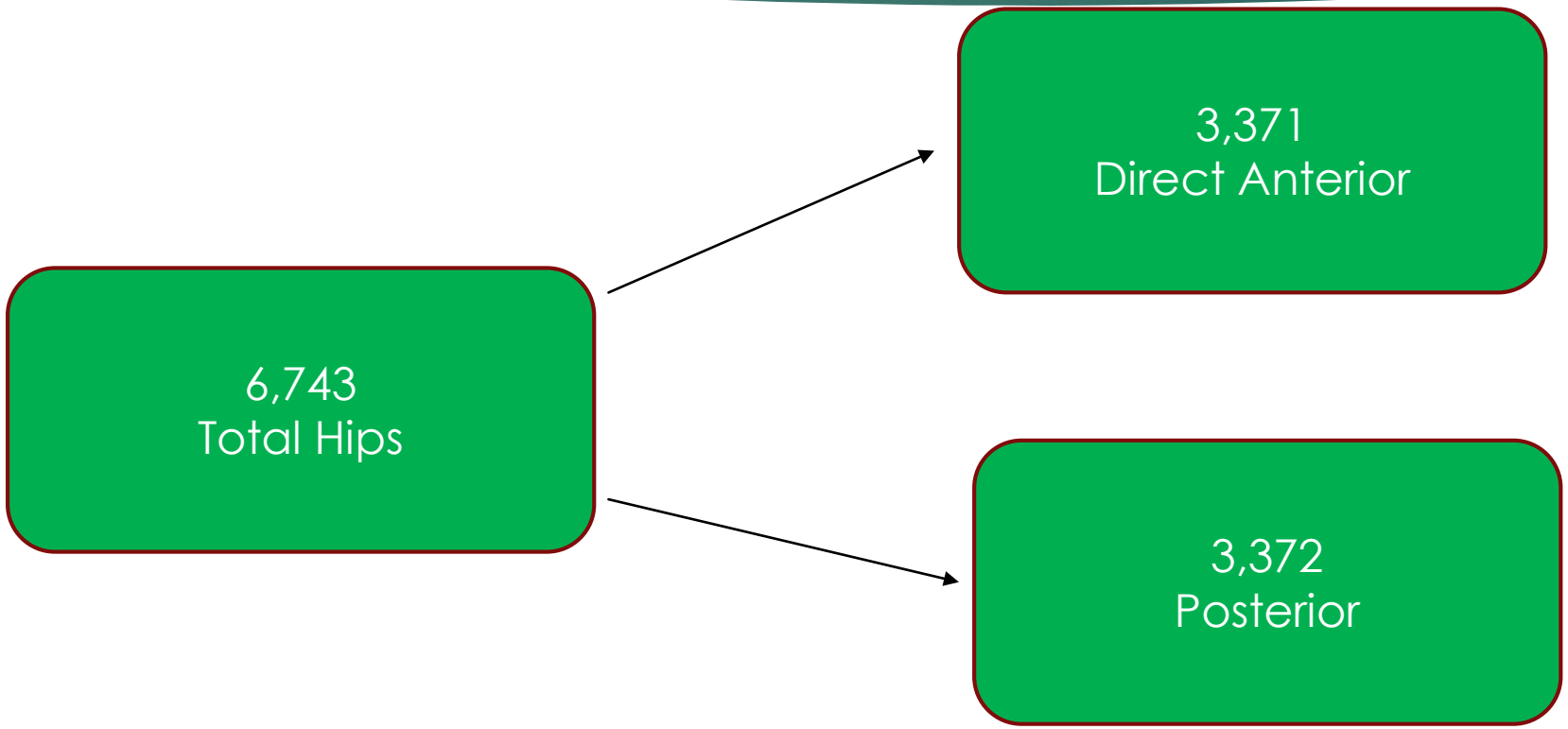
Demographics



Results

- Overall rate of DVT was 3.8%
- Patients that underwent direct anterior THA had a significantly lower incidence of VTE (2.6% vs 4.4%, p=0.0002)

Risk Factor	Odds Ratio
Hypercoagulable Disorder	5.2
Prior VTE	4.4
Age >70	3.3
Female Gender	3.1
BMI >35	2.4
Revision THA	2.1

Limitations

- Retrospective Study
- Only captured symptomatic VTE
- Only recognized patients that returned to our facilities
- Time to ambulation

Conclusion

- There has a been a lot research and interest in the direct anterior THA and this shows that it also is associated with decreased incidence of VTE
- Also demonstrate other risk factors associated with VTE and recommend optimizing modifiable risk factors prior to surgery

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