## RESEARCH ARTICLE

## **Abstract**

**Objectives:** The principal aim of our study is to investigate risk factors for lateral trochanteric pain (LTP) after direct anterior approach (DAA) primary total hip arthroplasty (THA).

**Methods:** A retrospective case control study was developed from 542 patients who underwent primary THA over a 9-year period to form two patient cohorts. Two hundred and seventy-one patients diagnosed with LTP were matched with 271 controls. Chart review revealed patient demographics, surgical approach, and femoral components utilized. Change in limb length and offset were assessed through preoperative and postoperative radiographic measurements.

**Results:** There was a higher proportion of current or former smokers in the LTP group (34.5% vs 21.74%, p=0.003). There was no significant difference in use of high offset stems vs. standard offset stems between groups (15.9% vs. 18.5%, p=0.494). However, the LTP group had significantly higher increase in both femoral offset (+3.55mm vs +1.79mm, p<0.001) and total offset (+0.16mm vs -1.16mm, p=0.031) in comparison to controls.

Conclusion: An increase in total offset, femoral offset, and smoking history are factors associated with LTP after

Level of evidence: I

Keywords: DAA, Direct anterior approach, Femoral offset, Lateral trochanteric pain, THA

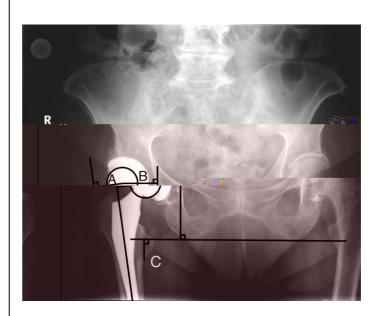
## Introduction

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**Materials and Methods** Study Design



Data Collection

Statistical analysis

<b>Results</b> Patient Demographics & Surgical Details			
Radiographic Measurements			
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Standard vs. High Offset Femoral Stems	I		
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**Discussion** 

Acknowledgement Authors Contribution:
Declaration of Conflict of Interest:  Declaration of Funding:  Declaration of Ethical Approval for Study: