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## INTRODUCTION

- ACL tears are relatively common injuries of the knee – especially within the young and athletic.
- The mechanism of injury and general radiographic findings associated with these tears have been extensively documented.
- The presence of a patella alta and the utilization of the Insall-Salvati Ratio as an indicator of ACL tears, however, has not been as well studied.
- The following case demonstrates utilization of the Insall-Salvati ratio to diagnose Patella Alta and increase suspicion for underlying ligamentous instability of the right knee.

## PATIENT RADIOGRAPHIC FINDINGS



XR Findings & Impression  
On lateral view, modified Insall-Salvati ratio is increased, which can reflect patella alta. Mild to moderate capsular distention is present. There is in the prepatellar region and in the soft tissue anterior to the right patellar tendon. No evidence of acute fracture.

## ACL RADIOGRAPHIC FINDINGS



Avulsion of Tibial Attachment<sup>2</sup>



Deepened lateral femoral notch<sup>4</sup>



Second fracture<sup>4</sup>

## DISCUSSION

- Significant association between an ACL tear and increased patellar tendon length with a greater Insall-Salvati ratio<sup>1</sup>.
- A substantially greater Insall-Salvati ratio of 1.16 (median) in patients with ACL tears versus 0.99 in control subjects with normal findings<sup>1</sup>.
- JT's Insall-Salvati ratio was: 1.78 (67.3mm/37.8mm) (Patella tendon/Patella length).

## CONCLUSIONS

This case illustrates the potential of patella alta, diagnosed by an elevated Insall-Salvati ratio, as a radiographic indicator for underlying ACL tear or other ligamentous disruption; especially given that outpatient physical exams can be inconclusive in post-traumatic settings.

## REFERENCES

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