

The Kim Test: A Novel Test for Posteroinferior Labral Lesion of the Shoulder

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Introduction

Detection of the posteroinferior labral lesion by physical examination is often difficult. The purpose of this study was to introduce a novel diagnostic test for the posteroinferior labral lesion of the shoulder.

Material and Methods

In 172 painful shoulders, the Kim test was compared with jerk test and was verified by arthroscopic examination. The Kim test was performed in a sitting position with the arm in 90° abduction. With examiner holding elbow and lateral aspect of the proximal arm, simultaneous axial loading and 45° upward diagonal adduction force was applied on the distal arm, while downward and backward force is applied on the proximal arm. A sudden onset of posterior shoulder pain and click with or without clunk indicated positive test.

Result

Thirty-three shoulders had a positive Kim test, in which twenty-four had posteroinferior labral lesion and nine had normal posteroinferior labrum. Out of 139 shoulders with a negative test, six had a posteroinferior labral tear and 133 shoulders had a normal posteroinferior labrum. The sensitivity of the Kim test was 80%, specificity, 94%, positive predictive value, 0.73, and negative predictive value, 0.96. The inter-examiner reliability between the two examiners was 0.91. The likelihood ratio for positive test was 12.6 and that of negative test was 0.214. The location of the posterior labral lesion was predominant posterior in 19 shoulders and predominant inferior in 11 shoulders. The Kim test was more sensitive in the predominant inferior labral lesion while jerk test was more sensitive for the predominant posterior labral lesion. The sensitivity in detecting the posteroinferior labral lesion was increased to 97% when the 2 tests are combined.

Conclusion

The Kim test is a reliable diagnostic test for posteroinferior labral lesion.

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