

Functional Outcome after High Tibial Osteotomy with Anterior Cruciate Ligament Laxity

David J Deehan MD
 Vivianne Russell BSc(Biomed)
 Lucy Salmon BAppSci(Phty)
 Leo A Pinczewski FRACS

INTRODUCTION

High tibial osteotomy retains an important place in the surgical management of isolated medial compartment arthrosis of the knee.

The aim of the study was to report the intermediate term results of patients who underwent classic Coventry high tibial osteotomy, and determine if the presence of an ACL rupture affected results.

METHODOLOGY

One hundred and forty patients underwent high tibial osteotomy for medial arthrosis of the knee between January 1991 and December 1994. The procedure was performed via a longitudinal laterally based hockey stick incision. The osteotomy was closed and held with one or more Krakow staples. The patient remained non-weight bearing for four weeks and thereafter took partial weight, in cast, for a further two weeks.

During the study period, six patients (seven knees) proceeded to knee arthroplasty and three had died of unrelated causes. Nine patients were lost to follow up. One hundred and seventeen patients (122 procedures) were available for review (93% follow up). All 117 patients completed a detailed questionnaire on the presence of symptoms with various activities. From this group of patients, seventy-four patients (77 knees) were also assessed clinically and a computerised scan of the lower limbs performed to assess radiological alignment in sixty-nine patients (72 knees).

RESULTS

There were 100 males and 22 females, median age 49 years, range 29 to 70. The median follow up was 64 months (range 37 to 80). Of these 27 patients had been anterior cruciate ligament (ACL) deficient and ninety five were ACL intact prior to surgery.

* significant difference to $p < 0.05$

	ACL def	ACL intact
No of patients	27	95
Age median	43	51*
Patient satisfaction (%)		
Enthusiastic/satisfied	96	88
Undergo surgery again	93	84
Limit of usual activity		
None/slight (%)	72	70
Moderate/great (%)	28	30
Pain level		
None/slight (%)	75	74
Moderate/great (%)	25	26
Knee Score median/100	89	86

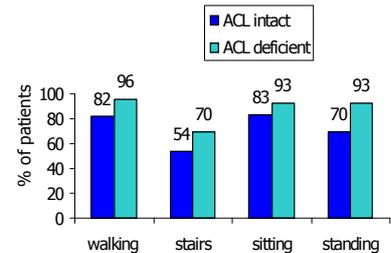
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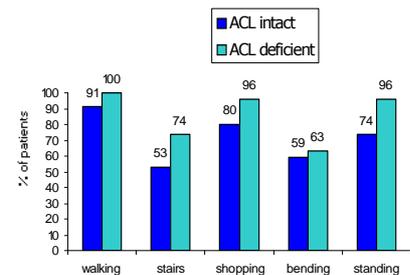
RESULTS

There were no significant differences between the two groups of patients for male / female ratio, median age and range, time to follow up, pre-operative femoro-tibial angle or radiographic findings and medial collateral laxity.

Patients who reported no pain with task



Patients who reported no difficulty with task



CONCLUSION

High tibial osteotomy is a reliable procedure which affords relief of symptoms from medial arthrosis of the knee. ACL deficiency in association with advanced medial arthrosis does not appear to adversely affect outcome. However, such patients require surgical intervention at an earlier age than those with an intact ACL. ACL deficient patients reported significantly less difficulty with some activities. Continued surveillance of this group is required to determine the natural history after osteotomy for these two groups of patients.