Early Results of Lateral Column Lengthening Using Distraction Calcaneocuboid Arthrodesis for Correction of Flatfoot in Adults

Kong BMF, Wong SB, Wong MS

Department of Orthopaedics and Traumatology, Alice Ho Miu Ling Nethersole Hospital, Hong Kong

ABSTRACT

Objective: To review the results of lateral column lengthening using distraction calcaneocuboid arthrodesis for correction of flatfoot.

Patients and Methods: Patients who underwent reconstructive surgery for symptomatic flatfoot between 2001 and 2003 were reviewed. Evaluation comprised clinical follow-up, physical examination, and review of X-rays and medical records.

Results: Six patients (11 feet) were evaluated. At a mean of 12 months postoperatively, 10 feet (91%) were less painful or pain-free compared with the preoperative status. Two feet (18%) had non-union. Two feet (18%) had paraesthesia of the sural nerve. One foot (9%) had implant failure. Three feet (27%) had an additional operation for removal of implants and revision arthrodesis. Five patients (83%) were satisfied with the outcomes of the procedures.

Conclusions: Most patients were satisfied with the result of the procedure. Lateral column lengthening is an effective treatment for symptomatic flatfoot after short-term follow-up.

Key Words: Arthrodesis, Flatfoot, Foot joints

INTRODUCTION

Flatfoot is a common condition that is usually asymptomatic.\(^1\) The prevalence of flatfoot decreases in adolescence, then increases in adulthood.\(^2\) Adult patients with symptomatic flatfoot are usually asymptomatic as adolescents and young adults. However, this deformity sometimes becomes symptomatic as a result of increased body weight and activity levels.\(^3\) Treatment of symptomatic flexible flatfoot includes the use of shoe modification and orthotics that will support the arch and prevent hyperpronation.\(^1\) In a small group of individuals, the deformity and pain preclude normal shoe wear and routine weight-bearing activities become difficult. Various surgical interventions have been used to treat this group of patients. Different arthrodeses, osteotomies, and tendon transfers have been used alone or in combination in attempt to restore the perceived normal anatomy of the foot as well...