Extra-articular Subtalar Joint Arthrodesis for Rigid Pediatric Pes Planovalgus in a Patient with a Talocalcaneal Coalition

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Abstract

To present a case of a 7-year-old female with symptomatic talocalcaneal coalition who underwent extra-articular subtalar arthrodesis. The coalition was resected, and subtalar fusion was performed with a flexible intramedullary rod. The patient had complete resolution of symptoms at last follow-up. This case study demonstrates a method of resecting a symptomatic talocalcaneal coalition while maintaining subtalar joint fusion.

Key words: Talocalcaneal coalition, Subtalar arthrodesis, Flexible intramedullary rod

Introduction

A 7-year-old female was referred to our clinic for evaluation of a symptomatic talocalcaneal coalition. She presented with a high arched foot and significant pain around the middle facet of her subtalar joint. The patient had a history of flat foot with associated pronation, which had persisted despite nonoperative management. She had previously undergone an above-knee cast for complex fracture, which was complicated by infection and bone loss.

Case Study

History of Present Illness and Problem List
A case is presented of a 7-year-old female with a symptomatic talocalcaneal coalition. The patient was referred to our clinic for evaluation of a high arched foot with associated pain. The coalition was found to be present on imaging studies. The patient had previously undergone an above-knee cast for a fracture, which was complicated by infection and bone loss. The coalition was confirmed on imaging studies, and the patient was scheduled for surgical intervention.

Imaging
Radiographic evaluation revealed a coalition with increased talocalcaneal alignment and increased calcaneal cuboid abduction. A 0.062 K-wire was placed across the subtalar joint acting as a旨在 to further augment position and alignment. Postoperatively, imaging demonstrated correction of the coalition and no evidence of recurrence.

Procedure
The surgical approach for treatment of the coalition involved resection of the coalition and subtalar arthrodesis with a flexible intramedullary rod. The patient underwent a successful procedure, and the coalition was resected. The patient was placed in a well-padded posterior splint for 1 week. At final 14-month follow-up, the patient had complete resolution of symptoms and improved alignment.

Postoperative Course
The patient was placed in a well-padded posterior splint for 1 week. At final follow-up, the patient had no recurrence of symptoms. The coalition was resected, and subtalar arthrodesis was performed with a flexible intramedullary rod. The patient had complete resolution of symptoms at last follow-up.

Conclusion
This case study demonstrates a method of resecting a symptomatic talocalcaneal coalition while maintaining subtalar joint fusion. The patient had complete resolution of symptoms at last follow-up, and the coalition was resected. The surgical approach involved resection of the coalition and subtalar arthrodesis with a flexible intramedullary rod. The patient underwent a successful procedure, and the coalition was resected. The patient was placed in a well-padded posterior splint for 1 week. At final 14-month follow-up, the patient had complete resolution of symptoms and improved alignment.

References