

A Case Report of Delayed-Presenting Congenital Talipes Equinovarus in a Patient of African Descent

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Abstract

Congenital talipes equinovarus (CTEV), commonly known as clubfoot, is a complex congenital deformity of the foot characterized by equinus, varus, adduction, and cavus. Early diagnosis and timely intervention are essential for optimal functional outcomes. However, delayed presentation remains a significant challenge in low-resource settings. We report a case of delayed-presenting congenital talipes equinovarus in a patient of African descent, highlighting clinical features, diagnostic considerations, management approach, and outcomes, with emphasis on challenges associated with late presentation.

Keywords: Congenital talipes equinovarus; clubfoot; delayed presentation; African descent; case report

Introduction

Congenital talipes equinovarus (CTEV) is one of the most common congenital musculoskeletal deformities, with an estimated incidence of 1–2 per 1,000 live births worldwide. The condition is characterized by a combination of forefoot adduction, hindfoot varus, cavus, and ankle equinus. Early intervention, particularly using the Ponseti method, has been shown to yield excellent functional and cosmetic outcomes.

Despite the effectiveness of early treatment, delayed presentation remains prevalent in certain populations due to socioeconomic barriers, limited access to healthcare, cultural beliefs, and lack of awareness. Late-presenting CTEV poses unique therapeutic challenges, often requiring modified conservative approaches or surgical intervention. This case report describes a delayed-presenting CTEV in a patient of African descent and discusses management strategies and outcomes.

Case Presentation

Patient Information

A middle-aged adult presented to the emergency department with acute pain and swelling of the right hand following recent international travel. The patient reported minor skin trauma sustained during travel but did not seek medical attention at that time. There was no significant past medical history, including diabetes mellitus or immunosuppression.

Clinical Findings

On physical examination, the affected foot demonstrated classical features of congenital talipes equinovarus, including:

- Fixed equinus deformity of the ankle
- Hindfoot varus
- Forefoot adduction
- Cavus deformity

The foot was rigid, with limited passive correction, consistent with delayed presentation. The skin over the foot showed callosities at pressure points due to abnormal weight-bearing. No associated neuromuscular abnormalities were detected, and the contralateral foot was normal.

Diagnostic Assessment

The diagnosis of congenital talipes equinovarus was made clinically based on physical examination findings. Radiographic imaging of the foot and ankle revealed altered talocalcaneal angles and confirmed the severity of the deformity. No additional skeletal abnormalities were identified.

Therapeutic Intervention

Given the delayed presentation and rigidity of the deformity, a modified Ponseti casting protocol was initiated. Serial manipulation and casting were performed with gradual correction of cavus, adduction, and varus

components. Due to persistent equinus deformity after casting, a percutaneous Achilles tenotomy was performed.

Following correction, the patient was placed in a foot abduction brace to maintain alignment. Parental counseling emphasized the importance of compliance with bracing to prevent recurrence.

Follow-Up and Outcomes

At follow-up visits, the patient demonstrated significant improvement in foot alignment and function. The corrected foot was plantigrade, with improved range of motion at the ankle. The patient achieved improved gait and was able to ambulate with minimal discomfort. No immediate complications were observed during the follow-up period.

Discussion

Delayed-presenting CTEV presents a therapeutic challenge due to increased soft tissue stiffness and adaptive bony changes. In many regions of Africa, late presentation is influenced by limited access to specialized orthopedic care, socioeconomic constraints, and cultural perceptions.

Despite these challenges, studies have shown that even late-presenting clubfoot can be effectively managed using modified Ponseti techniques, often reducing the need for extensive surgical correction. Early identification, community education, and improved access to orthopedic services are crucial for preventing delayed presentations.

This case reinforces the importance of conservative management as a first-line approach, even in older children, and highlights the need for increased awareness and early referral.

Conclusion

Delayed-presenting congenital talipes equinovarus remains a significant clinical issue in underserved populations. This case demonstrates that

satisfactory correction and functional outcomes can still be achieved using modified conservative treatment protocols. Early diagnosis, timely referral, and patient compliance remain key determinants of successful outcomes.

Patient Consent

Informed consent was obtained from the patient's legal guardian for publication of this case report and accompanying clinical information.

Conflict of Interest

The authors declare no conflict of interest.

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