



# POSNA

## The Core Curriculum

### **Congenital vertical talus**

#### **Objectives**

1. Describe the pathology of congenital vertical talus
2. Describe a rational approach to treatment based on the pathology
3. List conditions described as being associated with congenital vertical talus
4. Describe the assessment of the newborn with congenital vertical talus

#### **Discussion points**

1. At what age should surgery be performed, and why?
2. After the diagnosis has been made in the newborn, what type of workup is indicated?
3. How should the newborn be treated?
4. Is there a genetic component to the etiology of congenital vertical talus?

#### **Discussion**

Congenital vertical talus is a perplexing entity that can occur as an isolated entity or in conjunction with neuromuscular conditions such as arthrogyriposis, myelomeningocele, or spinal dysraphism. One series (Ogata) reported about half occurred as isolated entities, the rest were divided between being associated with other disorders with and without neurologic deficit. Stern described a family with an autosomal dominant pattern, but this is unusual. The pathology consistently described is a fixed dorsal dislocation of the talonavicular joint. Various authors have used a number of other descriptive terms in the literature for congenital vertical talus; however the term "congenital vertical talus" has been generally accepted by common usage, even though not descriptive of the basic pathology. The intrinsic musculature of the foot is lacking, and cannot protect the midfoot from the pull of the dorsiflexors, which subsequently displace the talonavicular joint by pulling the midfoot dorsally and laterally, leaving the talar head to plunge inferomedially (Specht). It is not surprising, given its proximity, that the calcaneocuboid joint can also demonstrate varying amounts of disruption. Forced dorsiflexion and plantarflexion lateral radiographs can demonstrate whether a dislocation of the talonavicular joint is fixed by assessing the relationship of the metatarsals to the talar head, the navicular of course being totally nonossified in infancy. Nonoperative treatment is ineffective. Some authors recommend operative treatment at 3-6 months, others prefer to wait until about 12 months. At present, most authors prefer a one-stage release with reduction and fixation of the talonavicular joint, often but not universally with lengthenings of the dorsiflexors and heelcord. Duncan transfers the anterior tibial to the talus. Although subtalar fixation was previously routinely performed, many present reports omit this procedure as a routine part of the correction. Longterm results that would be necessary to resolve this question are still pending.

## References

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