



MANAGEMENT OF CLUB FOOT - OUR EXPERIENCE

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ABSTRACT

Congenital talipes equinovarus is the Commonest congenital anomaly with a incidence of one to two per 1000 live births. Over the centuries it has been treated by various modalities, but the dilemma facing the surgeon has been a strong tendency to relapse.

It is defined as a fixation of the foots in a hand - like orientation - in adduction, supination and varus - with concomitant soft tissue abnormalities. Despite advances in treatment, disability often persists. The aetiology of the condition has been little studied and is poorly understood. Neurological, muscular, bony, connective tissue and vascular mechanisms have been proposed, put the only firm evidence is that the mildest cases appear to be associated with intra-uterine posture. There is evidence for a genetic contribution to congenital talipes equinovarus aetiology. Its incidence varies with ethnic group, and we found that a family history is present in 24-50% of cases, depending on the population studied.

KEYWORDS : Congenital Talipes EquinoVarus, (CTEV),tenotomy. PMSTR(posteromedial soft tissue release),FAB(Foot Abduction Brace),Ponseti.

Introduction

Congenital talipes equinovarus (CTEV), often known as 'club-foot', is a common but little studies developmental disorder of the lower limb¹. It is defined as fixation of the foot in adduction, n supination and in varus, i.e. inclined inward, axially rotated outwards and pointing downwards. The Calcaneus, navicular and cuboid bones are medially rotated in relation to talus, and are held in adduction and inversion by ligaments and tendons. Although the foot is supinated, the front of the foot is pronated in relation to back of the foot, causing cavus². In addition, the first metatarsal is more plantar flexed. Congenital talipes equinovarus is termed 'syndrome' when it occurs in association with other features as part of a genetic syndrome, or its can occur in isolation in which case it may be termed 'idiopathic'. Syndromic talipes equinvarus arises in many neurological and neuromuscular disorders, for example spina bifida or spinal muscular atrophy, but the idiopathic form is by far the most common. The upper limb is normal in idiopathic CTEV.³

The equinovarus deformity is classified into congenital and acquired.⁴ The congenital is further classified into idiopathic and non-idiopathic types. The idiopathic type is typically an isolated skeletal anomaly, usually bilateral, has a higher response rate to conservative treatment and a tendency towards a late recurrence.

Pathoanatomy

Numerous anatomical studies of clubfoot have confirmed the gross changes in the shape and position of the talus, navicular, calcaneum and cuboid. The tendons, tendon sheaths, ligaments and fascia of the foots have undergone adaptive changes and became fibrotic or contractured.⁵ The talocalcaneocuboid joints are subluxated. Nevertheless, until today, the question still remains as to where the initial anatomical changes first occurred in the tarsal bones with subsequent soft tissue adaptation, or vice versa.

Classification

The purpose of a classification system is to help in subsequent management and prognosis.^{6,7}

1. Soft foot -	may also be called postural foot and corrected by standard casting or physiotherapy treatment.
2. Soft>Stiff foot	It is usually a long foot which is more than 50% reducible and responds initially to casting.

3. Stiff> Soft foot	It is less then 50% reducible and after casting or physiotherapy.
4. Stiff foot	It is teratologic and poorly reducible. It is in severe equines deformity.

Radiological Assessment

At present, there no satisfactory methods for and early objective assessment.⁸ In 1896, Barwell introduced the of plain radiographs to assess the exact status of clubfoot. However, at birth, clinical examination is more informative that radiological, as only the ossification centress of the talus, calcaneum and metatarsals are present. These two tarsal bones appear as small rounded ossicles. Thus, the plai radiograph film does not help to evaluate the shape ad orientation of the tarsal anlage. The tarsal bones become sufficiently ossified after 3 to 4 months. By then, radiological evaluations give a more accurate objective record than does clinical evaluation. Some authors have made radiological assessments by an anteroposterior and lateral projection films before and after surgical correction.

Management

In our Study at GMC Rajnandgoan (C.G.) from April 2016 to till date total no. of cases of Club foot treated 63 cases out of which 23 operated and remaining treated conservatively. The management of clubfoot continues to present a formidable difficulty owing to the current views on its pathoanatomy and treatment. The results of any form of treatment vary according to the severity of deformity and the surgeon's philosophy on this deformity.

The aim of treatment is to obtain an anatomically and functionally normal feet in all patients. However, this is unrealistic as the deformity of the joints and ligaments of the foot and the are sometimes to be severe to be corrected fully. Conservative treatment of clubfoots in well accepted and has been reported to result in good correction ranging from as low as 50% to as high as 90% . Recent trends show that gentle plaster manipulation is more popular than strapping.^{9,10} This serves two purposes. **[Figure 1-6]**

Discussion

Depending upon the classification of clubfoot treatment varies Selection of patient is important for treating CTEV. In our Study 63 cases were treated both conservatively and surgical method depending upon types with excellent result in followup.¹¹



Figure 1

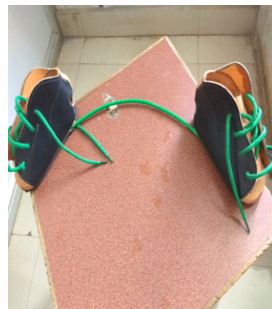


Figure 2



Figure 4



Figure 3



Figure 5

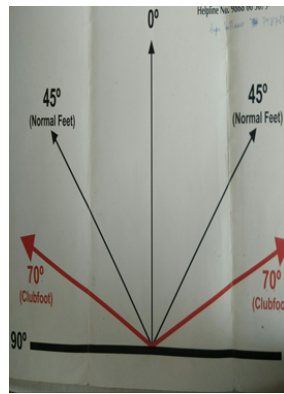


Figure 6

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