



RAMA
UNIVERSITY

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FACULTY OF NURSING

ORTHOPEDIC ABNORMALITIES

CONGENITAL TALIPES EQUINOVARUS (CLUB FOOT)

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INTRODUCTION

- *Talipes* :- Latin talus (ankle) + pes (foot).
- *Equino* :- Indicates the heel is elevated (like a horse's)
- *Varus* :- Indicates it is turned inward.
- It is a congenital malformation of the lower extremity that affects the lower leg, ankle, and foot.
- Club foot, also called congenital talipes equinovarus (CTEV), is a congenital deformity involving one foot or both. The affected foot appears to have been rotated internally at the ankle.

DEFINITION-

Club foot is a birth defect where one or both feet are rotated inwards and downwards.

or

The term club foot is used to describe a common deformity in which the foot is twisted out of its normal shape or position.

CAUSES

- The cause of clubfoot is unknown (idiopathic). But scientists do know that clubfoot is not caused by the position of the baby in the womb (fetus).
- In some cases, clubfoot can be associated with other abnormalities of the skeleton that are present at birth (congenital), such as spina bifida.
- Clubfoot can also be the result of problems that affect the nerve, muscle, and bone systems, such as stroke or brain injury.
- Extrinsic associations include teratogenic agents (eg, sodium aminopterin), oligohydramnios, and congenital constriction rings

RISK FACTORS

- Risk factors include:
 - Sex. Clubfoot is more common in males.
 - Family history. If either one of the parents or their other children have had clubfoot, the baby is more likely to have it as well. It's also more common if the baby has another birth defect.
- Smoking during pregnancy. If a woman with a family history of clubfoot smokes during pregnancy, her baby's risk of the condition may be 20 times greater than average.

- Not enough amniotic fluid during pregnancy. Too little of the fluid that surrounds the baby in the womb may increase the risk of clubfoot.
- Getting an infection or using illicit drugs during pregnancy. These can increase the risk of clubfoot as well.

TYPES

- ***Talipes varus***: inversion or bending inward of foot.
- ***Talipes valgus***: eversion or bending outward of foot.
- ***Talipes equinus***: planter flexion and toe is lower than heel.
- ***Talipes calcaneous***: dorsiflexion, toe is higher than heel. Treatment requires stretching: plantarflex and invert foot, excellent prognosis

SYMPTOMS

- If a child has clubfoot, his or her foot may have the following appearance:
- The top of the foot is usually twisted downward and inward, increasing the arch and turning the heel inward.
- The foot may be turned so severely that it actually looks as if it's upside down.
- The calf muscles in the affected leg are usually underdeveloped.
- The affected foot may be up to 1/2 inch (about 1 centimeter) shorter than the other foot.

DIAGNOSIS

- X-rays
- Ultrasonography
- CT- Scan

TREATMENT

- Stretching and casting (Ponseti method)
- Stretching and taping (French method)
- Surgery
- Brace

1. **Stretching and casting (Ponseti method)**

- This is the most common treatment for clubfoot. The doctor will do the following:
- Move the baby's foot into a correct position and then place it in a cast to hold it in that position .
- Reposition and recast the baby's foot once or twice a week for several months .
- Perform a minor surgical procedure to lengthen the Achilles tendon (percutaneous Achilles tenotomy)
- toward the end of this process .
- Percutaneous Achilles tenotomy Casting

2. Stretching and taping (French method)

- This approach is also called the functional method or the physiotherapy method. Working with a physical therapist, parents:
- Move the foot daily and hold it in position with adhesive tape .
- Use a machine to continuously move the baby's foot while he or she sleeps .
- After two months, cut treatment back to three times a week until the baby is 6 months old .
- Once the shape is corrected, continue to perform daily exercises and use night splints until the baby is of walking age .
- This method requires a much greater time commitment than does the Ponseti method. Some caregivers combine the French method and the Ponseti method.

SURGERY-

- Usually done at 9-12 months of age

NURSING MANAGEMENT-

- After surgery, the child has to undergo repeated casting so skin integrity needs to be taken care of.
- The nurse should assess the condition of skin under the cast.
- The nurse must encourage the parents to view the child as a whole and not just club foot deformity.
- The nurse must encourage the family for constant follow up till the child reaches skeletal maturity.
- The child with residual deformity should be encouraged to participate in age appropriate physical activities.

THANK

YOU