

# Short term review of foot length and calf circumference in unilateral clubfoot

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# Study protocol

- Prospective study of 32 idiopathic unilateral clubfeet
- Age at start of treatment : 8days-6 weeks
- Foot length and calf circumference measured when foot was fully corrected and then every 3 months
- Follow up 1.5 years- 3 years
- Radiographs of feet performed after 1.5 years
- Foot measurements on radiographs done using Kodak QC 120.140 software

# Results

- 30 of 32 feet were smaller in size
- The mean difference in foot length was 0.8 cm (range 0.5-1.5cm). The difference did not increase significantly at all follow ups
- The mean difference in calf circumference was 1.0 cm( range 0.5-2cm). The difference increased over a period but was not statistically significant

# Results of radiograph measurements

- Small foot size was contributed equally by all bones of the foot.
- Post tendoachillis tenotomy, the difference in lateral tibio calcaneal angles of both feet was not statistically significant
- The difference in lateral tibiotalar angle and lateral talo calcaneal angle of both feet was statistically significant
- 2 patients had Limb Length Difference of 1.5 cm

Radiograph showing small Right Foot

Clinical picture showing small Right foot and smaller calf circumference



# Conclusion

- Difference in foot length will remain same over a period of time and all bones of feet are smaller in size as compared to the other foot
- Difference in calf circumference may increase over a period of time
- A lesser increase in tibio talar angle may be due to tight ankle joint capsule
- Tibio calcaneal angle improved post surgery as the TA is attached to calcaneum but it was still less than the normal side because of tight subtalar capsule