

Effect of Reconstructive Foot Surgery on The Quality of Life and Functional Outcome in Patients with Charcot Foot

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INTRODUCTION:

Surgery is regularly done for patients with Charcot foot neuropathy (CN) when the foot is severely debilitated to align the foot in a plantigrade position foot so that they can ambulate and to prevent further complications. Reconstructive foot surgery involves the arthrodesis of the midfoot or hindfoot with screws or an intramedullary nail. There has been limited data on the outcome of the surgery in patients with CN.

MATERIALS & METHODS:

This is a prospective observational cross-section study. Short Form-36 and American Orthopaedic Foot and Ankle Society (AOFAS) Score are used to assess the outcome. The study population includes CN patients who have undergone foot reconstruction surgery and are seen at the foot and ankle clinic at Hospital Tengku Ampuan Afzan and IIUM Medical Center. Paired t-test is used as the statistical analysis.

RESULTS:

There are significant improvements in the quality of life and functional outcome post-operation. We have two patients with negative results: one patient develops ulceration, and the other progresses to osteomyelitis.

Figure 1: The mean difference between pre-operative and post-operative SF-36 component scores in CN patients (n = 30).

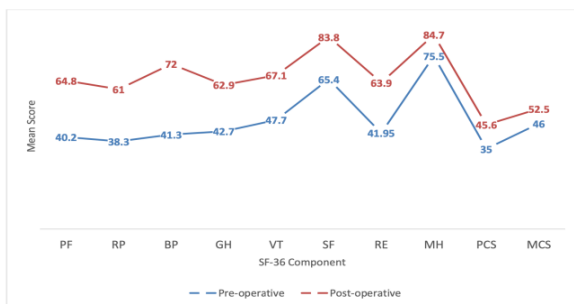
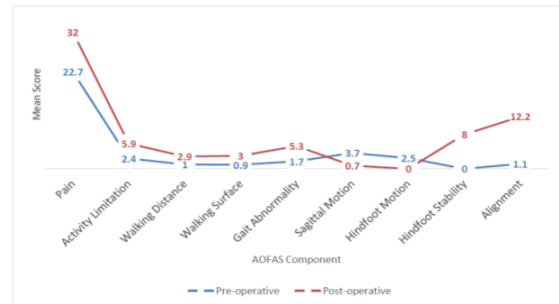


Figure 2: The mean difference in AOFAS component scores in CN patients (n = 30) when compared pre-operatively and post-operatively



DISCUSSIONS:

This study suggests that doing a reconstruction through surgical intervention improves the patient's physical and emotional wellbeing. According to research by Wukich et al., using the SF-36 to evaluate mental score is less accurate since patients have become accustomed to their illness and their physical condition has little bearing on their mental health.

CONCLUSION:

Tibiototalcalcaneal arthrodesis with a nail for the hindfoot and cancellous screws for the midfoot and subtalar arthrodesis, is an excellent reconstructive technique to align the CN foot in a plantigrade position to decrease pain and improve physical and mental health.

REFERENCES:

1. Wukich et al., The Journal of bone and joint surgery. American volume vol. 92,2 (2010): Pg287-95.