CO15-003-e
Rehabilitation potential following tibialis posterior tendon transfer in patients with post-Hansen foot drop
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Keywords: Tendon transfer; Leprosy cured patients; Stanmore Scoring System

Background.– The aim of this study was to assess rehabilitation potential following functional surgery done in post-Hansen foot drop patients.

Methods.– Sixteen patients with ages ranging from 14 to 47 years were submitted to posterior tibial tendon transfer by the circumtibial route to correct foot drop in leprosy cured patients. Operated patients were followed up on the end of 8th, 16th and 24th weeks. Stanmore system was used as method for evaluating the functional results in the postoperative patients.

Results.– According to the Stanmore system, results of 62.5% patients were very good. More so, 12.5% of them (two out of sixteen) had shown good results, whereas other patients i.e., 12.5% of them had fair results. Rest 12.5% of them had poor results. All the patients were satisfied with their near normal gait pattern.

Conclusion.– The posterior tibial tendon transfer for foot drop in leprosy patients is efficient in restoring normal function of the foot and achieving “heel to toe” gait pattern without changing foot posture. In the absence of a standardized method for assessing the results of posterior tibial tendon transfer, the Stanmore system seems to be a good tool for an rehabilitation evaluation.

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Effects of surgery and early rehabilitation treatment (ERT) on equino-varus foot deformity (EVFD): Changes in dorsiflexion and space-time parameters during gait at 1 month after surgery
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Keywords: Foot deformity; Equinovarus; Stroke; Surgery; Rehabilitation

Background.– In literature, there are no indications about short-time effects of combined physiotherapy and surgical correction of equino-varus foot deformity (EVFD) after stroke. We analysed changes of ankle dorsiflexion (DF) and space-time parameters during gait 1 month after surgery associated with early rehabilitation treatment (ERT).

Methods.– We retrospectively analysed data from 47 chronic hemiplegic patients who underwent surgery and ERT with an articulated AFO for an immediate post-Hansen foot drop. We walked distance (MWD) were determined before the operation and 3 months after surgery. Pre-surgery DF in stance and in swing had prognostic value of treatment success.

Results.– DF increased 1 month after surgery in all gait phases (Wilcoxon test, P < 0.0001), becoming neutral at IC. Small but significant (P < 0.05) variations towards normality were found for stride width, anterior step length of affected side and duration of double support phase of contralateral side. Post-surgery maximum DF in stance and swing but not at IC were correlated (R = 0.81, P < 0.0001 and R = 0.45, P < 0.05, respectively) with their pre-surgery values.

Discussion/Conclusion.– Surgery associated with ERT was effective to correct EVFD by restoring heel foot-ground contact and DF during gait 1 month after surgery. Pre-surgery DF in stance and in swing had prognostic value of treatment results.

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Long-term evaluation of the triple arthrodesis associate to muscular rebalancing procedures in neurological foot
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Keywords: Arthrodesis; Charcot-Marie-Tooth disease; Foot

Background.– Neurological foot surgical management including deformities’ correction and muscular imbalance. The aim of the study was to demonstrate the role of muscular rebalancing to avoid and/or to slow progression of ankle arthritis [1].

Methods.– We analyzed 45 associated procedures between 2003 and 2004 including 29 Achille’s tendon lengthening, 16 hemi-tibialis, 12 tibialis posterior and 3 flexor halluces longus transfers. Clinical, functional and radiological data were analyzed before surgery and 10 years after surgery.

Results.– Above 59 feet (14 bilateral procedures), 7 feet had asymptomatic ankle arthritis at the follow-up.

Discussion/Conclusion.– Persistence of muscular imbalance after a simple triple arthrodesis induces abnormal mechanical stresses in above and below articulations. This led to a risk of developing premature ankle arthritis. The aim of surgical muscular rebalancing is to slow progression to arthritis.

Reference

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Posters

P014-e
Relationship between improvements in physical measures and patient satisfaction in rehabilitation after total knee arthroplasty
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Keywords: Total knee arthroplasty; Range of motion; Climbed stairs; Walking distance; Pain and functional activity

Background.– Osteoarthritis is the most common form of arthritis that causes disabling knee symptoms in approximately 10% of individuals aged above 55 years. The study examined patient satisfaction with rehabilitation after total knee arthroplasty (TKA).

Methods.– Fifty-six patients aged 45–77 years were enrolled in a post-TKA comprehensive therapy program focusing on knee strengthening and functional activities. The program lasted 3 months and was conducted for 1 h, twice a day, 5 days per week. Pain scores, number of steps climbed (STp), and maximum walked distance (MWD) were determined before the operation and 3 months after cessation of the rehabilitation program. In addition, range of motion (ROM) was measured before the surgery and immediately, 2 weeks and 3 months after the surgery.

Results.– Pain decreased whereas MWD and STp & ROM increased at 2 weeks & 3 months post-operation. Thus improvement was among the satisfied VS the unsatisfied.

Discussion/Conclusion.– The results confirm the importance of rehabilitation for osteoarthritis patients after TKA. Older patients, more inclined to improvement and satisfied patients seem to achieve larger improvement in functional capacity.