EARLY OUTPATIENT PROSTHETIC FITTING/REHABILITATION AS AN ALTERNATIVE FOR LOWER LIMB AMPUTEES IN SLOVENIA

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Abstract

The model of outpatient prosthetic fitting/rehabilitation as an alternative to classic stationary model is presented in this article. Increasing number of lower limb amputees in elderly initiated the idea of outpatient prosthetic fitting/rehabilitation as a complementary method to classic stationary rehabilitation in the National Rehabilitation Institute in Ljubljana. The model consisted of delayed immediate prosthetic fitting with Pneumatic Walking Aid during the hospital stay, prosthetic rehabilitation in our outpatient unit, followed by fitting the temporary prosthesis by the mobile prosthetic team from the National Rehabilitation Institute, continuing prosthetic rehabilitation in our outpatient unit and final application of permanent prosthesis by the mobile prosthetic team. Prospective study of outpatient prosthetic fitting/rehabilitation in 2004, including 66 lower limb amputees proved, that outpatient model of prosthetic fitting and rehabilitation in selected population could be as effective as the classical stationary model and thus represents a possible alternative.

INTRODUCTION

Increasing number of elderly patients with critical lower limb ischemia present a challenge for alternative and **patients friendly** prosthetic rehabilitation.

Every kind of walking is better than a wheelchair. Our elderly do not accept to be left in a wheelchair, they want to walk! Only 40 to 50 steps make them able to cover their flats by themselves. Elderly feel and function better at home and therefore quite a lot of them would prefer the outpatient model of prosthetic rehabilitation.

METHODS AND SUBJECTS

In General Hospital Celje immediate prosthetic fitting with Pneumatic Walking Aid (PWA) was introduced in 1991 and routinely used since. It was included into our outpatient model. After leaving the hospital, these patients continued prosthetic rehabilitation on the outpatient basis once or twice weekly in our outpatient unit, proceeding with strength exercises for upper and lower extremities, mobility exercises for the residual limb, learning walking with crutches and with PWA.

When the residual limbs were prepared for temporary prosthesis, the patients at risk and those, who haven't got the possibility to attend outpatient rehabilitation regularly, were sent to our National Rehabilitation Institute in Ljubljana for stationary rehabilitation and prosthetic fitting.

Those, who were willing and able to attend our outpatient programme, were presented to the mobile prosthetic team from the National Rehabilitation Institute, consisting of a skilled physiatrist and two orthopaedic engineers, who visited our hospital twice a month and managed 10 to 12 patients per visit.

Measurements and moulds for temporary prosthesis have been made and prostheses were ready for further testing in 12 days in average.

The temporary prostheses, being tested and fitted, the patients continued their rehabilitation program in our outpatient unit once a week, using their prostheses increasingly throughout the day.

When residual limb was prepared, permanent prosthesis was tested, adding final adaptations and aesthetic touch and finishing the procedure.

RESULTS

Prospective study on outpatient prosthetic fitting/rehabilitation was carried out from 16.01.2003 to 07.01.2004. The study included 66 patients, which fulfilled the testing conditions.

50 (76%) were males and 16 (24%) females in average age of 66 years, 36 of them were smokers. Critical ishemia was the

cause for amputation in 64 cases, 24 of them were diabetics, two amputations resulted from trauma only.

There were 19 transfemoral, 39 transtibial amputations and only one knee diarticulation, 7 patients were bilateral amputees.

After the rehabilitation, 68 prostheses have been applied. All patients but one, have been walking without assistance with or without crutches.

We have had only one serious complication. An undisciplined diabetic patient, heavy smoker and bilateral trans femoral amputee, broke his right arm and landed in a wheel chair.

DISCUSSION AND CONCLUSION

The majority of lower limb amputees are elderly. They function and feel better in well known domestic surroundings, therefore they prefer to stay at home. The prospective study proved, that outpatient prosthetic fitting/rehabilitation in selected population is effective, therefore the model of early outpatient prosthetic fitting and rehabilitation should become the method of choice, giving the patients, who are willing and have the possibilities to attend the outpatient activities, the possibility to be adequately rehabilitated at home.

References:

1. Burgess EM et all. Immediate postsurgical prosthetics in management of lower extremity amputees. Veterans Adm. Washington DC 1967.