Outcome of Rehabilitation of Articular Cartilage Knee Defect after Autologous Osteochondral Transplantation

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INTRODUCTION

The osteochondral transplantation (OCT) is a well accepted treatment option for focal cartilage lesions in the knee joint. Repair of full thickness defects of articular cartilage in the knee is difficult but important to prevent osteoarthritis.

PURPOSE

The purpose of this study is to report outcome measures after rehabilitation of autologous osteochondral transplantation in a patient with articular cartilage in the left knee .

MATERIAL AND METHOD

The patient A.G, 23 years old at follow-up. Six weeks after osteochondral allograft the patient was referred for outpatient rehabilitation.

The knee function was assessed by:

Range of motion (ROM)

Thigh muscles size

Numerical Pain Scale

The rehabilitation program

RESULTS

KNEE RANGE OF MOTION	Flexion	Extension
Baseline	105 ⁰	-5 ⁰
After two weeks	130 ⁰	0 ⁰

THIGH MUSCLES SIZE (cm)	
Baseline	44cm
After two weeks	42cm

PAIN SCORE 0 - 10 NUMERICAL RATING SCALE

DISCUSSION

The articular cartilage is a layer of hyaline cartilage that covers the end of bones that articulate with other bones. Articular cartilage is critical for people joint function. It is vulnerable to traumatic injury and has no capacity to regenerate.(1) Patient with significant chondral defencts frequently have persistent joint line pain, swelling and catching in the knee.(2) Osteochondral transplantation is currently the only procedure that restores the normal hyaline articular cartilage to the injured knee.(3) Post-operative rehabilitation will focus on regaining range of motion and protect the healing plugs. As the rehabilitation progresses the focus shifts to regaining strengt and movement control.

CONCLUSION

Cartilage knee defects are often associated with continued patient symptoms and can lead to progressive onset of early osteoarthritis, although the exact incidence is unknown. Implementation of a regular rehabilitation treatment after osteochondral transplantsatioin in the knee, has essential importance and is strongly recommended.

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