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### **Purpose**

In the present report we follow some main anatomic-kinesiologicial factors for providing of joint stability and complex rehabilitation strategy after operation of ventral glenohumeral instability.

### **Material and Methods**

Literature search of articles published in the last five years concerning ventral capsulorrhaphy reconstruction and postoperative rehabilitation.

### **Results**

Complex rehabilitation approach was structured based on the results of the contemporary trends of surgical treatment and postoperative rehabilitation of patient with ventral glenohumeral instability.

### **Conclusion**

The application of new approaches in postoperative rehabilitation after arthroscopic capsulorrhaphy is a precondition for full recovery of glenohumeral functions.

**Key words:** ventral capsulorrhaphy, rehabilitation

## **PHYSIOTHERAPY IN VESTIBULAR DISORDERS**

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### **Introduction**

Vestibular apparatus is an organ of balance, a basic unit of equilibrium analyzer. It is closely associated with muscle analyzer. The etiology of this disease still remains unknown. The clinical observations indicate that it is a primary disease, and it is not a consequence of other pathological process.

### **Aim**

Presentation of a modern approach to physiotherapy treatment for vestibular disorders.

### **Materials**

The literature review was made on the topic. Meniere's disease is a socially significant disease, which is determined by the fact that patients are with reduced working capacity or impossibility to practice some specific professions.

### **Method**

The current therapy aims to reduce the available symptoms. The optimal treatment should stop the vertigo, to reduce the noise in the ear and to improve hearing. A great part of the healing methods are directed to control of the most disturbing symptom, dizziness and dilution and seizure control.

### **Results**

Through selected and dosed physical exercises we aim to develop better coordination between the eye analyzer and deep muscle and joint sensitivity which actively supports the biological compensation.

### **Discussion**

Vestibular function disorders, although not threaten the patient's life, they lead to unpleasant consequences

associated with impaired balance, coordination of movements, orientation in space.

### **Conclusion**

Physiotherapy occupies a significant place in the treatment plan with their features, because of the social significance of the illness.

**Key words:** vestibular apparatus, physiotherapy, electrotherapy

## **KINESIOLOGICAL GROUND OF PHYSICAL THERAPY AFTER SHOULDER HEMIARTROPLASTY**

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Functional recovery of the shoulder region after arthroplasty in cases of fractures of the proximal humerus present a great challenge because the recovery of the soft tissue tension and anatomical position of the tubercles are very difficult. The surgical intervention changes the shoulder biomechanics and put some specific demands on the development of the physical therapy program.

The **aim** of the study is to presents the kinesiologicial base of the special features of the physical therapy following shoulder hemiarthroplasty in cases proximal humeral fractures.

On the basis of recent publication and clinical experience, the main patobiomechanical/pathokinesiologicial changes after shoulder hemiarthroplasty are determined, and the main characteristics of the postoperative physical therapy are pointed. The accent is put on the key role of the recovery of the rotator cuff for development of dynamic stabilization and complex function of the shoulder. The Main pathobiomechanical problem is reactivation of the rotator cuff muscles, since trauma, operative intervention and postoperative immobilization lead to marked inhibition and hypotrophy of these muscles. Since biomechanical changes after shoulder hemiarthroplasty for fractures could not be fully avoided, adequate physical therapy is of main importance for maximal functional recovery.

**Key words:** hemiarthroplasty, shoulder, pathokinesiologicial, kinesitherapy.

## **PHYSIOTHERAPY PROGRAM FOR IMPROVING THE QUALITY OF LIFE IN PATIENTS WITH COXARTHROSES**

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### Introduction

Coxarthrosis /CA/ not only restricts the functionality of the people, but also affects the psyche of the patient. It is among the most common diseases of modern times, lowering the quality of life of patients.

The aim is to investigate the effect of the application of the manual physiotherapeutic mobilization and myofascial techniques to improve the quality of life in patients with arthrosis.

### Material and methods

36 patients with unilateral coxarthrosis (23 women and 13 men) of mean age 61.67, were divided into two groups: experimental (EG) - 19 and a control (CG) - 17 subjects. Studied are: pain (visual analogue scale - VAS); range of motion of the hip; muscle imbalance; gait; degree of disability (ODI); physical and mental status (SF-8). Treatment program for the two groups include electrotherapy and physical therapy (PT). CG is treated with classic massage and EG - with manipulative massage (MM), myofascial techniques, incl. techniques for trigger points (MFRT) and mobilization with movement on Mulligan (MWM).

### Results

Statistically significant at the end of treatment ODI reduced in both groups. The percentage of disability in experimental group decreased by 10.53, and in the control group by 6.76%. The assessment of physical health status in EG increased by 103.05%, reaching  $54,74 \pm 4,65$  points at the final examination. For CG the final result is  $50,88 \pm 6,09$ .

### Discussion

Lesser degree of disability and better health status of patients in EG proves the effect of applied manual techniques through which more pronounced reduces pain, improves joint mobility and the functionality of muscles.

### Conclusion

The inclusion of manipulative massage, myofascial techniques, massage trigger points and mobilization with movement by Mulligan in treatment program by patients with arthrosis leads to statistically significantly better results and improves the quality of life of respondents.

**Keywords:** arthrosis, physical therapy, quality of life.

### MASSAGE METHODS FOR PREVENTION AND TREATMENT OF LUMBOSACRAL PAIN SYNDROME

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### Introduction

Functional disorders with motor deficits of the sacroiliac joint (SIJ) is characterized by local and radiating pain. They can cause secondary occurred

scoliosis, blockages and various clinical syndromes - dysmenorrhea, morbus Crohn, chronic adnexitis, and others.

### Aim

The aim is to create and test Physiotherapeutic (PT) methodology, combining manual techniques and analytical exercises for patients with dysfunction of the sacroiliac joint and chronic pain syndrome in the lumbosacral area.

### Material and methods

In the period 2014-2015, we treated 29 patients (18 men and 11 women) with pain syndrome and functional blocks of SIJ with an average age of 32.76 years. The patients were divided into 2 groups: control group (CG) - 14 and an experimental group (EG) - 15 patients. Before and after the treatment we assessed the intensity of pain (visual-analogue scale - VAS), SIJ mobility and muscle imbalance. The therapeutic program included classic massage, post isometric relaxation, analytical exercise and auto mobilization of SIJ. For the experimental group, classical massage was replaced by myofascial and positional release techniques.

### Results

Statistically significant ( $p < 0.05$ ) reduction of pain was registered in both groups, but it is 0.8 points higher in EG. Relaxation of shortened static muscles and improved mobility of SIJ is a prerequisite for improving the static and dynamic strength endurance of the abdominal, back and gluteal muscles, reliably more prominent in EG.

### Discussion

Restoration of joint mobility and muscle balance significantly reduces symptoms of pain, which is why relapses in EG are significantly lower than those in the control - 26.7% for EG and 35.7% for CG.

### Conclusion

Comprehensive methodology with co-administration of active PT, myofascial techniques and trigger points massage achieves maximum efficiency and can be reliably used by therapists in the country.

**Key words:** lumbosacral pain, muscle imbalance, massage

### PROFESSIONAL SKILL FORMATION IN STUDENTS DURING THE TRAINEESHIPS

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### Introduction

The additional traineeships are an element of innovation in the practical training of medical rehabilitation students at the Medical College. They are aimed at mobilisation of students, improvement of their practical skills, strengthening of team work and remuneration of participants.

The purpose of the present study was to perform opinion research among medical rehabilitation