



ROLE OF MULTIDISCIPLINARY TEAMS FOR INTEGRATED CARE IN THE SURGICAL TREATMENT OF OSTEOARTHRITIS

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SUMMARY

The aim of the following article is to present the role of multidisciplinary team in the implementation of integrated care for patients scheduled for surgical treatment of osteoarthritis. It can include different professionals from health care and social sectors depending on patients' needs. Integrated provision of care is connected to a system evaluation of every aspect of the health status of the patient by different health care professionals and team planning of the procedures needed for the patient. Care provided by multidisciplinary team help for the improvement of activity after surgical intervention, functional abilities, psychological and social health.

Key words multidisciplinary team, osteoarthritis, treatment, integrated care,

INTRODUCTION

According to various sources osteoarthritis is the most common condition of the musculoskeletal system. It can be observed in 12-15% of the population. More than 80% of people over 75 years old in world suffer from this condition. Osteoarthritis is a condition which is a result of biological and mechanical causes that destabilize the normal process of synthesis of chondrocytes in the cartilages [1]. The changes involve increased water content, decreased proteoglycan content, changed collagen matrix which all lead to deterioration of articular cartilage. Osteoarthritis can be classified in two types – primary and secondary. Primary osteoarthritis typically is characterized with unknown source and affects all joints. It can be rarely observed before the age of 35. Secondary osteoarthritis usually affects a single joint and is characterized by degenerative changes leading to discrepancy in the articular surfaces [2].

Coxarthrosis can be observed in 10% of the patients with osteoarthritis. While gonarthrosis can be observed in 40% of all the patients with osteoarthritis. Degenerative processes in joints can appear independently of age. There are various causes for these conditions – lifestyle, nutrition, genetic predisposition, obesity, lack of activity, trauma.

According to WHO data, joint diseases decrease the quality of life of patients and cause substantial financial losses for the patient and for society as a whole [3, 4, 5].

MATERIALS AND METHODS

The following article presents a retrospective analyses of 15 publications on the role of multidisciplinary teams providing care for patients with osteoarthritis from the time interval 1998-2013. Sociological method of observation of 20 patients in the Department of Orthopedics and Traumatology at the University Hospital "St. Marina" LTD is used in order to observe and analyze the organization of integrated care provided by multidisciplinary teams during hospital and post-operative period after endoprosthesis surgery.

DISCUSSION

German speaking authors use the term "osteoarthrosis" and are concentrated on degenerative changes in the joint structure and mainly cartilages. Meanwhile, Anglo-Saxon authors use the term "osteoarthritis" of the same condition paying more attention on the clinical manifestation of the disease [4, 6].

For the uncomplicated cases conservative treatment is used firstly. There are different combinations of its main elements: change of lifestyle, physiotherapy, rehabilitation, painkillers and NSAIDs, intracartilage injection of corticosteroids, medication and food supplements (chondroprotectors) intake. Different methods of conservative treatment are usually used until reaching optimal results. When conservative treatment is not successful surgical treatment is needed [4, 6].

Integrated care are widely used in the surgical treatment of osteoarthritis. They involve multidisciplinary teams of health care professionals and social care professionals. Multidisciplinary team can be defined as: a group of medical specialists from different disciplines and social care specialists that share same values and purposes. Multidisciplinary teams for medical care are firstly organized in the 50s of 20th century when surgical and pharmacological opportunities for care are not developed as nowadays [7, 8]. The elements of the therapeutic regime included resting in bed, therapy with passive or supportive activities, warm and cold therapy, working therapy and emotional support. Integrated care provided by multidisciplinary teams for patients with osteoarthritis include keeping and improving of quality of life of patients by improving their physical activity after surgery, their functional abilities, psychological and emotional condition as well as

their professional status [9, 10]. Although the content of the team may vary usually the multidisciplinary team may include the following professionals [6, 11]:

- Orthopedist - traumatologists - they perform surgical procedures and the following observation of patients [6].

- Kinesiotherapist - Creates individual program for every patient in order to improve joint function and physical condition before surgical intervention and postoperative rehabilitation. Before starting an ordinary training program they define which activities are convenient for each patient and how often they need to be performed in order to make the program more effective [6].

- Ergotherapist - Educates patients on the ways of joint protection, pain management as well as the possibility to save their energy in domestic or home environment. Professional therapist can help with home changes that can make the home safer for the patient [6].

- Medical psychologist and psychiatrist – They help patients with dealing with emotional, social and psychological hardships at home and at work that are a result from their medical condition [6].

- Social worker - Helps patients in solving the social challenges as a result of temporary work disability, financial hardships, home care and other needs that the health condition requires [6].

- Nutritionist - creates a diet for improvement of health and sustaining of normal weight of patients with osteoarthritis. If the patient is with obesity a program for safe loss of weight is required [6].

- Nurse - Takes care of the medical treatment prescribed by the orthopedist, supports the patient and his family emotionally and psychologically in order to adapt easily to the changed social condition. Nurses help patients stick to their treatment plan in order to improve their condition by showing them how to do everyday activities like dressing, walking, stairs, bathing [6].

Health information and self-observation are very important for healthcare specialists in order to help effectively with the disease control. This information can be used to make changes in the treatment plan. Taking notes and diary is of great importance so that changes in the treatment plan can be made. Educating patients is really important as well as their participation in seminars and educational programs [4, 12].

In the last years research is focused on the process of team care not on the results. Patient centered approach is used when providing multidisciplinary care and a system mark of all health aspects of the patient are observed [9]. Stucki et al. (2002) create “rehabilitation cycle” for systematic scoring of all aspects of the health condition of the patient as well as the consequences of the disease in order to define a therapy and its purpose. Specific measures directed at increasing the role of the patient in the treatment process and improvement of the communication between the members of the team need to be taken in order to create better rehabilitation [13]. The code of solving rehabilitation problems provides health specialists with common language in order to describe patients` functions from health specialists` and patients` point of view

[1, 14]. The utility of COPM (Canadian Scale of Productivity of Labour) researched in a program for day care of multidisciplinary teams of patients with osteoarthritis show that COPM do not lead to significant change in patient conception about participation in the process [9]. In spite of this, members of the team claim that the use of COPM as a team measure lead to increased patient participation in the process and is a good indicator of the results [12, 15]. At the same time it helps focusing on the patient and division of goals [13].

In Bulgaria there is very little data on the provision of integrated care by multidisciplinary teams for patients ongoing surgical treatment of osteoarthritis. Therefore some practical aspects are presented from the Orthopedics Department at University Hospital “St. Marina” LTD. At the abovementioned department integrated care have been introduced since 2012.

After admission at the Department of Orthopedics and Traumatology at University Hospital “St. Marina” LTD an assessment of the condition of the patient is made, the required activities, interventions are planned and spread over the team. Patient participation and role in the care process is being discussed and defined. A care plan is made and the multidisciplinary team takes care of involvement of other inner healthcare professionals (orthopedist, kinesiotherapist, nurse) and healthcare specialists of other clinics- psychologists, food delivery organization, other professionals [1].

Integrated care during surgical intervention of patients with osteoarthritis in provided to 12 women and 8 men. Three of the female patients have undergone two knee replacements. Other two patients have undergone two hip replacements and the other seven patients have undergone one knee and one hip replacement.

Two of the male patients are with two hip replacements, the third male patient is with two alloplastic of hips, the other two are with two knee replacements. Patients accepted at the department between 2012 - 2014 are provided with integrated care by multidisciplinary team. The integrated care is provided during the perioperative and postoperative period which is different for every patient (between 2 weeks and 2 months). Patients accepted at the department and treated in hospital conditions are more than the observed, but those who can afford multidisciplinary integrated care are less. In the following article only patients that finance their own postoperative integrated care are presented because NHIF does not cover postoperative integrated care.

Benefits of integrated care of the twelve observed patients at the Department of Orthopedics and Traumatology at the University Hospital “St. Marina”

- Coordinated care with non-stop control of the patient by multidisciplinary team;

- Connection between the patient and the multidisciplinary team about assessment of the patient`s condition, early signs of deterioration of the condition and quick activities from the team;

- Separated roles of the team members;

- Patient is at the center of care and actively participates in the care process.

CONCLUSION

Multidisciplinary integrated care teams provide better opportunities for solving of the health problems of the patients. Benefits for the patient consist of integrated care provided by multidisciplinary teams of health care specialists from different health sectors and social sector. Scientific data on the effectiveness of patient care of patients with osteoarthritis show that there are better results for patients

provided with integrated care than patients provided with ordinary hospital care. Multidisciplinary teams may consist of different specialists according to the needs of the patients.

Patients' care of patients with osteoarthritis is provided by integrated care teams during perioperative and postoperative period is better and more effective than the care provided by the hospital normally. Team work makes it possible to take the best decisions for the patients with osteoarthritis.

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