

Research Article

Epidemiological Profile of Patients with Osteoarthritis Treated in the Ambulatory of Hydrotherapy at Unit of Education and Assistance on Physiotherapy and Occupational Therapy

Brenison Souza de Barros, Gabriela Quaresma da Rocha, Iasmin Pereira Cabral, Karen Lorena Nunes Baia, Lana Carolina Natividade da Rocha, Luã Alves de Araújo, César Augusto de Souza Santos*

Universidade Trás-Dos-Montes e Alto Douro (UTAD), Vila Real, Brazil

*Corresponding author

César Augusto de Souza Santos, Rua dos Mundurucus n. 2904 Apto. 1701, Bairro: Cremação, Brazil, Tel: 55-91-998-30-151; Email: cesylamazon@gmail.com

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Abstract

Osteoarthritis (OA) is a degenerative joint disease that affects predominantly females between the fourth and fifth decades of life and in menopausal period. It affects mainly the hips, knees, spine and hands. The symptoms are crackling, reduction or loss of joint function, limitation of movement, adjacent muscular atrophy, deformities, nodules and inflammation. Hydrotherapy can be used in the treatment of OA. This modality of therapy provides to the patient an overall wellness; analgesia and relief from the pain symptoms, making the patient feel more comfortable with a significant improvement in functional capacity. The article aimed to obtain data of the epidemiological profile of the patients with diagnosis of OA treated at the UEAFTO (Brazilian abbreviation for Unit of Education and Assistance on Physiotherapy and Occupational Therapy), in order to provide benefits for the general population. This study involved data from primary sources such as the records of patients of both sex without ethnic discrimination, over the age 40, who were treated in the ambulatory of Hydrotherapy at UEAFTO during the period between August 2010 to August 2013 and with confirmed diagnosis of OA.

INTRODUCTION

Osteoarthritis (OA) is a degenerative joint disease which occurs predominantly in female gender between the fourth and fifth decades of life, affecting mainly the hips, knees, joints of vertebral column and hands. The prevalence increases with age, not being frequently observed before the age of 40 and more often registered after the age of 60 [1]. The impact of this pathology can be shown through the data of the Brazilian Social Security. OA is responsible for 7,5% of all sick leave cases. It is the second most frequent disease among the ones that can justify the initial aid, corresponding to 7,5% from the total. Moreover, it is on the second position when it comes to sick pay, reaching 10,5% of the cases, and it is the fourth disease that causes most of the retirements (6,2%) [2]. With the ageing of the population, the

prevalence of OA has been increasing and it have been causing an strong socioeconomic impact [3] has shown in studies that the OA is in the same level as cardiovascular diseases and the Chronic Obstructive Pulmonary Diseases as the main cause of chronic physical disability. The occurrence of this pathology is influenced by factors such as: age, sex, heredity, obesity, hormonal and metabolic changes, previous joint injury and the repetitive use of the joint [4]. Symptomatic individuals present mechanical pain, local or irradiated, which can be triggered by the use of the damaged joint. Patients may also report morning rigidity or rigidity at the beginning of the joint movement. Generally, the pain is eased by rest. Furthermore, there is crackling, decrease or loss of joint function, limitation of movement, hypotrophy of adjacent muscles, deformities and inflammation [1,5].

The symptoms of OA appear in a subtle way and develop to the incapacity, varying from joint to joint, with certain tendency to bilaterality [6]. The aims of the treatment are to avoid the progression of the injuries, to control the pain, to improve and prevent joint limitations and deformities and improve the quality of life of the affected individual [4]. It is recommended therapeutic activity, which includes local physical therapy, exercises, reduction of mechanical impact on the injured joint and also alternative therapies to provide improvements on individuals concerning the pain condition and maintenance of joint function [7]. Physiotherapy is likely to be useful on the treatment of OA given its diversity of resources, which include exercises, heat and cold therapy, therapeutic ultrasound or electric stimulation. The implementation of exercises after the phase of acute pain, for the strengthening of muscles, comes as the most important physiotherapy modality [8]. The hydrotherapy may be used in the treatment of the OA. Hydrotherapy acts on pain and effectively reduces the impacts already caused by the pathology, providing analgesia and pain relief, promoting wellness significant improvement of the functional capacity for the patient [8]. The Unit of Education and Assistance on Physiotherapy and Occupational Therapy (UEAFTO) is an institute of reference in Physiotherapy and Occupational Therapy. At the UEAFTO, actions of assistance to the community are promoted, supervised by professionals and professors of the University of the State of Para (Brazil). The Unit contains a specific department of Hydrotherapy, utilized by a large number of patients with OA. Taking into account the referred data above, this article aims to describe the epidemiological profile of the patients treated at UEAFTO in the period between August 2010 and August 2013 and whose treatment to OA was hydrotherapy. Through this research we aim to stimulate studies concerning OA, for it leads to a greater professional attention to OA patients.

METHODOLOGY

The research had as methodological proposal the epidemiological study of quantity nature, transversal and with an exploring and descriptive feature. The temporal cut was in the period from August 2010 to August 2013, of confirmed cases of OA. The research was in agreement with the principles of Helsinki's declaration, as well as the Nuremberg code, respecting the norms which involve human beings (Res. CNS 4666/12) from the National Council of Health. The study was carried at UEAFTO. The data collection was conducted between the second half of October and the first half of November, 2013, during the day time and afternoon breaks.

Thirty seven records of patients were analyzed, these being users of the Brazilian National Health Service of both sex, without ethnic discrimination, over the age of 40, that received treatment in the hydrotherapy ambulatory of UEAFTO in the period between August 2010 and August 2013, whose diagnosis was OA. Records of patients whose treatment conduct was not the hydrotherapy and/or whose records didn't bring enough data for the research were excluded. The data was collected by a formulary elaborated by the authors of this research. The formulary comprised items related to the socio-demographic profile of the target population and other specific variables, such as the history of the main complaint, possible risk factors,

associated pathologies and experience with other modalities of Physiotherapy treatment and information about the return and conclusion of the hydrotherapy treatment.

The analysis was conducted through graphics and tables plotted on Microsoft Office Excel 2010. This study was carried aiming to provide benefits to the general population, since it is a study of important prevalence in epidemiology.

RESULTS AND DISCUSSION

Based on the methodology adopted during the analysis of the epidemiological profile of patients with OA, a total of 37 records were analysed referred to the number of patients diagnosed with OA, being 6 patients of the male sex (16,21%) and 31 of the female sex (83,78%), being all of them treated in the ambulatory of hydrotherapy at UEAFTO during the period between August 2010 and August 2013.

The results have shown that the patients are in the age range from 41 to 83 years old and are in average of 61, 05 years old. The data referred to the socio-demographic profile of patients collected during this research reveals basic information collect from the patient's medical records: Sex, Age, Marital status, Schooling, Occupation, Place of birth and Hometown shown in Table 1.

According to Trevisani (2010) [9], the prevalence of OA is strictly correlated to the age, not being common in adults under 40 years old and more prevalent after the 60 years, affecting more women than men. This research is in agreement with Trevisani's study by proving that there is a greater incidence of OA in female sex, adults and after the fourth decade of life. Analyzing the data more specifically in regards of the pathology of this research, it was possible to observe the item which reveals how long the average main complaint takes, registered by the patients (Figure 1).

The studies of Ariotti et al [4] present the influence of the risky factors on the development of OA. In this study it was possible to observe that all records studied contained at least one of the factors mentioned by the author, such as: Gender, Age, Obesity, Heredity, Hormonal and metabolic changes, Joint stress and previous joint injury (Table 2). Among the records analysed, 23 registered some associated pathology, highlighting the fact that several patients had more than one register. The remain of the analysed records (14) showed a lack of any associated pathology (Table 3).

Based on the variables found in the patient's records, it was possible to find information concerning complementary treatments in Physiotherapy received by some members of the sample in the referred period of time. It was verified that 27 patients (72,97%) reported a complementary treatment with other modalities like: kinesiotherapy which makes use of mobilizations, stretching and exercises; mechanotherapy with equipments like stationary bicycle and wall bars; electrotherapy using TENS, laser therapy and therapeutic ultrasound; and thermotherapy using cryotherapy and infrared. Ten patients (27,02%) did not report anything about other types of Physiotherapy (Figure 2).

Some complementary data was found during this research

Table 1: Socio-demographic data.

Variable	Category	n=37 n	%	
Sex	Male	6	16,21	
	Female	31	83,78	
Age Range	41 - 83	37	100	
Marital status	Single	5	13,51	
	Married	12	32,43	
	Widower	1	2,7	
	Divorced	1	2,7	
	Stable union	2	5,4	
	Without information	16	43,24	
	Schooling	Incomplete Elementary School	8	21,62
Completed Elementary School		3	8,1	
Incomplete High School		7	18,91	
Completed High School		7	18,91	
Without information		12	32,43	
Occupation	Housewife	4	10,81	
	Worker	1	2,7	
	Office assistant	2	5,4	
	Retired	8	21,62	
	Teacher	1	2,7	
	Tailor	1	2,7	
	Washerwoman	1	2,7	
	Carpenter	2	5,4	
	Dental surgeon	1	2,7	
	Trader	5	13,51	
	Without Information	11	29,72	
	Place of birth	Para	31	83,78
		Others	1	2,7
		Without information	5	13,51
	Hometown	Belem	21	56,75
Others		4	10,81	
Without information		12	32,43	

Resource: UEAFTO Patient's medical records

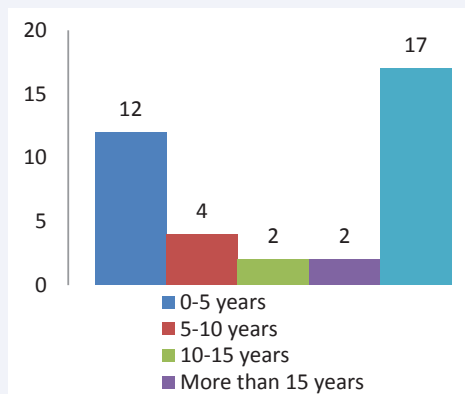


Figure 1 Register of main complaint time.

Table 2: Risky Factors.

Registered Risky Factor	Number of patients Who registered the risky factor	% of the general sample
Gender	31	83,78
Age	37	100
Heredity	2	5,4
Hormonal Changes	4	10,8
Joint Stress	13	35,13

Table 3: Associated pathology.

Pathology Identified	Number of patients that registered the pathology
Asthma	1
Diabetes	5
Quervain's disease	1
Cervical Herniated Disc	1
Hypertension	17
Labyrinthitis	1
Osteoporosis	3
Parkinson's disease	1
Carpal Tunnel Syndrome	1

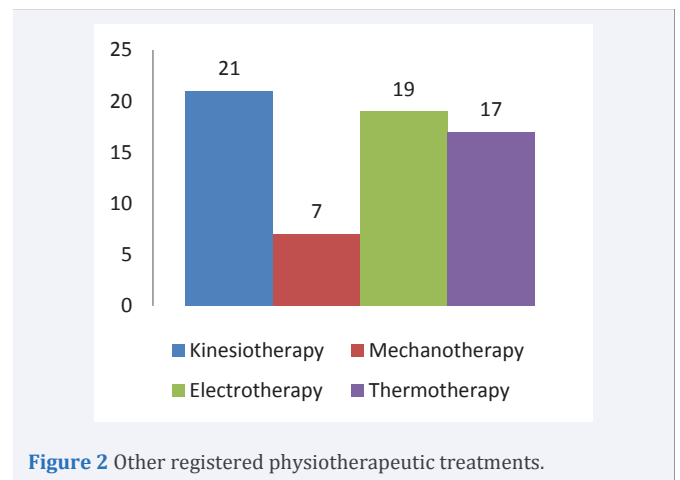


Figure 2 Other registered physiotherapeutic treatments.

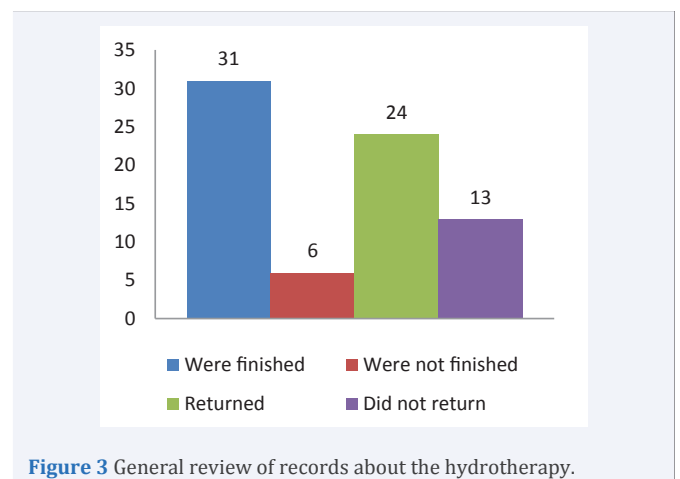


Figure 3 General review of records about the hydrotherapy.

and allowed a general view about the aspects of the hydrotherapy that was conducted with the 37 patients with OA at UEAFTO (Figure 3). Important factors to be mentioned in this research refer to the negligence on the patients' records, which for many times brought problems to the development of this research. Since most of records shown incomplete information, there was a considerable reduction in the number of samples to be used in this study.

CONCLUSION

The study allowed analysis of the epidemiological profile of patients with OA treated at UEAFTO's Hydrotherapy Ambulatory. By analysis of the sex of the individuals, it was observed higher occurrence of OA in the female sex, with age range over 40 years old. Based on the literature review and on the results obtained, it was possible to conclude that the risky factors, in the majority of the examined cases, are: gender, age, heredity, hormonal changes and joint stress. This analysis stimulates researchers to produce more complex studies, since it is extremely important for any professionals of care to have the knowledge about this pathology.

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