

Effectiveness of treatment of patients affected by trochanter major enthesitis

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Abstract

Introduction: Enthesitis of the trochanter major is characterized by pain and often by limping when walking, then pain, tension, swelling, increased warmth and redness in the area of trochanter, and hip weakness especially when performing exercises with resistance.

Research goals: Determine the effectiveness of treatment of major trochanter enthesitis, and analyze the representation of it in patients of both gender, different ages and professions.

Methods: Retrospective analysis of data from the clinic "Praxis" in the period from 01.01.2001. to 31.12.2011. year because of the major trochanter enthesitis 30 patients were treated. Criteria for inclusion in the study were those people with symptoms and diagnosis of of the trochanter major enthesitis who have accessed treatment, while the criteria for exclusion were inadequate diagnosis, treatment abandonment and lack of patient data. The process of therapy included the evaluation of the functional status of patients graded 0-5, then conducted physical therapy that included: bed rest, manual massage and local instillation of depot corticosteroids, and assessment of treatment success ranging from 0 to 5.

Research results: The mean score for condition of respondents was 3.27 before therapy, while after treatment it was 4.33. The mean score for status of respondents was 3.13 before treatment, and after therapy it was 4.33.

Conclusion: Based on these data we can conclude that treatment in the clinic "Praxis" leads to the improvement in patients suffering from the enthesitis of trochanter major.

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Keywords: *Enthesitis, trochanter major, treatment.*

Introduction

Enthese is the place of attachment of tendons, ligaments, joint capsules or fascia to bone. It consists of Sharpey's connective fibers which enter the bone under different angles. This ensures the distribution of force over a larger area. In entheses are embedded proprioceptive nerve endings which send signals during the excessive contractions to the higher, extrapyramidal centers, and by the feedback signals muscle tension is decreased (1-3). Enthesitis is an inflammation of the insertions of tendons, ligaments, joint capsules or fascia to bone. (4-7). Enthesitis of the trochanter major is characterized by pain and often by limping when walking, then pain, tension, swelling, increased warmth and redness in the area of trochanter, and

hip weakness especially when performing exercises with resistance (3, 8). The trochanter major enthesitis can occur due to increased intensity of activity, prolonged contractions, frequently repeated rapid contractions of low intensity or strong stretching. The disease can also be metabolic, infectious, degenerative, or professional (2, 3, 8). The clinical examination reveals pain, tension and swelling of affected structures. Conventional radiography and computerized tomography (CT) allow proper evaluation of entheses such as soft tissue calcification, erosions and changes in bone formation at the affected site. Magnetic resonance imaging and diagnostic ultrasound are in advantage in detecting enthesitis due to detailed review of the status of bones and soft tissues at the point of entheses. (1, 2, 5, 9) In the treatment of trochanter major enthesitis are used nonsteroidal antiinflammatory drugs (Aspirin, Ibuprofen), physical therapy, bed rest and orthoses to achieve the relief of the

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joint. In severe cases, corticosteroid injections are used to ensure the reduction of inflammation and pain of the affected place. (2, 3, 8, 9) The aim of this study is to determine the efficacy of treatment of patients with trochanter major enthesitis, and analyze its representation in patients of both genders, different ages and professions.

Methods

Patients

The study included all patients who reported to the clinic "Praxis" because of the trochanter major enthesitis in the period from 01.01.2001 to 31.12.2011 year. During the monitoring period, because of the problems caused by the trochanter major enthesitis, 30 patients were treated. The study inclusion criteria were the professions: doctor, veterinarian, teacher, engineer, lawyer, economist, administrative worker, laborer, artisan, farmer, housewife, retired, pupil, student, diagnosed trochanter major enthesitis on the basis of clinical examination (inspection and palpation of the affected part) and radiographic tests (CT, MRI, Ultrasound diagnostic). Criteria for exclusion from the study were inadequate diagnosis, and respondents who quit treatment or lacked documentation needed for research.

Study design

The study is designed as a descriptive, analytical, non-experimental before-and-after study. Data were retrospectively collected using specialized software, which includes required variables that will be analyzed in the study. Condition of patients was evaluated before therapy by the following score (10): 0 – immobile, 1- difficult mobility with help, 2 - difficult mobility with help of hand tools, 3- satisfactory functional status and capable for daily activities, 4 - good functional status, 5 - neat functional status for ASZ and work, 6 - quit the treatment, 7 - further medical rehabilitation required. The method of treatment of enthesitis in the clinic "Praxis" is composed of bed rest, manual massage and local instillation of depo corticosteroids. Condition of patients was evaluated after therapy by the following score (10): 0 - unchanged condition, 2 - minimal improvement, 3 - satisfactory improvement with outcomes of injury or illness,

4 - good improvement with satisfactory functional restitution, 5 - good functional restitution without sequels, 6 - quit the treatment, 7- further medical treatment required (diagnostic or operative). Status of patients was evaluated before and after therapy by the following methodology (10): 1 - difficult mobility by the help of others, 2 - difficult mobility by the help of hand tools, 3 - independently mobile by the help of hand tools, 4 - good functional status with minimal sequels, 5 - neat functional status. The resulting data is analyzed by age, gender, occupation and treatment results.

Statistical analysis

We used descriptive statistical methods, percentage representation and the mean score of condition and status before and after therapy.

Results

TABLE 1. Precision of hsCRP

Gender structure	No. of respondents	Percent
Male	4	13.33%
Female	26	86.67%
TOTAL:	30	100%

TABLE 2. Structure of respondents by occupation

Occupation	No. of respondents	Percent
Doctor	0	0%
Veterinarian	0	0%
Teacher	0	0%
Engineer	3	10%
Lawyer	1	3.33%
Economist	2	6.67%
Laborer	0	0%
Farmer	0	0%
Administrative worker	4	13.33%
Artisan	0	0%
Housewife	4	13.33%
Pupil	0	0%
Student	0	0%
Retired	16	53.33%
Others	0	0%
TOTAL	30	100%

TABLE 3. Age structure of respondents

Age structure of respondents	No. of respondents	Percent
00 - 07 years old	0	0%
08 - 14 years old	0	0%
15 - 24 years old	0	0%
25 - 34 years old	0	0%
35 - 44 years old	0	0%
45 - 54 years old	2	6.67%
55 - 64 years old	7	23.33%
Over 65 years old	21	70%
TOTAL:	30	100%

TABLE 4. Condition of patients before therapy

Rating	Rating 0	Rating 1	Rating 2	Rating 3	Rating 4	Rating 5	Total:
No. of respondents	0	0	2	18	10	0	30
Percent	0%	0%	6.67%	60%	33.33%	0%	100%

$$\bar{X} = 3.27$$

TABLE 5. Condition of patients after therapy

Rating	Rating 0	Rating 2	Rating 3	Rating 4	Rating 5	Total:
No. of respondents	0	0	5	10	15	30
Percent	0%	0%	16.67%	33.33%	50%	100%

$$\bar{X} = 4.33$$

TABLE 6. Status of patients before therapy

Rating	Rating 1	Rating 2	Rating 3	Rating 4	Rating 5	Total:
No. of respondents	0	2	25	0	3	30
Percent	0%	6.67%	83.33%	0%	10%	100%

$$\bar{X} = 3.13$$

TABLE 6. Status of patients after therapy

Rating	Rating 1	Rating 2	Rating 3	Rating 4	Rating 5	Total:
No. of respondents	0	0	9	2	19	30
Percent	0%	0%	30%	6.67%	63.33%	100%

$$\bar{X} = 4.33$$

The mean duration of therapy for the patients with trochanter major enthesitis in the clinic "Praxis" is 4.1 day.

Discussion

According to analysis of data from the clinic "Praxis" in the period from 01.01.2001. to 31.12.2011. year, because of the major trochanter enthesitis, 30 patients were treated. In the total sample 4 (13.33%) respondents were male and 26 (86.67%) respondents were women. The largest number of patients with trochanter major enthesitis by occupation were retired (16 or 53.33%), followed by equally represented administrative workers and housewives (4 or 13.33%). Fewer respondents (3 or 10%) were engineers, then economists (2 or 6.67%), and a lawyer (1 or 3.33%). The most represented age group was over 65 years (21 or 70%), followed by respondents age group of 55-64 years (7 or 23.33%) and respondents from the age group of 45-54 years (2 or 6.67%). The mean score for condition of respondents was 3.27 before therapy, while after treatment it was 4.33. The mean score for status of respondents was 3.13 before treatment, and after therapy it was 4.33. The mean duration of therapy for the patients with trochanter major enthesitis in the clinic "Praxis" is 4.1 day.

Conclusions

On the basis of this research we can conclude that treatment in the clinic „Praxis“ leads to improvement of condition and status of the respondents who suffer from trochanter major enthesitis. Research has shown that the trochanter major enthesitis is more frequent in women. The disease has occurred the most on respondents age groups above 65 years of age who have been retired by profession.

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