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Original Article

Association of Quality of Life and Pain Intensity in Patients of Trigger Points

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ABSTRACT

Myofascial trigger points are hyperirritable, unpleasant when compressed, and they have the ability to generate anomalies of the autonomic nervous system, referred pain, and motor dysfunction. **Objective:** To determine the Association of quality of life and pain intensity in patients of trigger points. **Methods**: Data were gathered from the Central Park Teaching Hospital, the Mayo Hospital, the Doctors Hospital, and the Jinnah Hospital. Our investigation focused on the prevalence of disability and quality of life in patients with trigger points. For quality of life and pain, we used the SF 36 Functional Limitation and General Health questionnaire; a visual analog scale was used. **Results:** Out of 152 patients, 87(57.2%) were males, and 65(42.8%) were females. The patients mean age was 38 ± 12.78 yrs. with a minimum age of 22 yrs. And maximum age of 72 yrs. 4(2.6%) patients has mild Pain, 67(44.1%) have moderate pain, 81(53.3%) have severe pain. 67(44.1%) patients have poor Health quality, 81(53.3%) have moderate health quality, and 4(2.6%) have good health quality. P-value for pain intensity and general health was 0.00, so we reject the null hypothesis and accept the alternative hypothesis, which indicated a significant difference between pain intensity and general health. p-Value was 0.012 for pain intensity and physical functioning. **Conclusion:** Hence it was concluded that the majority of the patients with trigger points have a poor quality of life and severe Pain. There was an association between quality of life and pain intensity.

INTRODUCTION

Structures in skeletal muscles that exhibit some types of brokenness were shown to be myofascial trigger points. The writing also suggests that the physio obsessive component of myofascial trigger focuses was connected with changes in strong action and the repercussions for blood flow and nearby digestion. Myofascial trigger focuses may present as dynamic or dormant. They were logically overly sensitive to palpation because of agony, change in solid movement, restriction in joint versatility, and autonomic signs. The presence of different algetic chemicals, such as bradykinin, substance P, and serotonin, affects how the dynamic myofascial trigger points behave [1, 2]. Based on the palpation of the muscles, for the proper identification of myofascial trigger points. However, different authors point out that palpation requires a combination of knowledge, training, and fundamental clinical practice. Likewise, different instruments, such as electromyography, child elastography, and ultrasonography, can be used to evaluate subjects with myofascial trigger points [3, 4]. One further useful method for evaluating patients with myofascial pain was infrared thermography. It was a safe method for evaluating how the

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body's skin temperature behaved and depended on microcirculatory, metabolic, and autonomic activities [5, 6]. Fibromyalgia condition (FMS) was characterized by persistent and diffuse outer muscular pain, despite the tests using infrared thermography in subjects with myofascial torment, there was no normalization in the method for infrared picture investigation [7]. The pain caused by at least one hyperirritable spot in the skeletal muscle that is connected to touchy-visible knobs in rigid groups is referred to as a "myofascial trigger point" (MTrPs). Additionally, it was explained that large dynamic MTrPs completely replicated the generally unrestricted clinical pain experienced by FMS patients, indicating that MTrPs can be an important part of pain management. Patients with FMS frequently have a number of dynamic trigger points that are connected to combined pressure hyperalgesia and cause more pain in the local area. In point of fact, trigger points have been regarded as this population's primary source of extreme discomfort. Patients with FMS may experience focal sharpening as a result of fringe inputs from dynamic MTrPs [8-11]. They believed that particular body parts were where the generally unrestrained agony was located. Local and referred agony have been caused by dynamic trigger points in the trapezius muscle, which are repeated patterns of neck and shoulder pain in FMS. According to previous research, the number of dynamic MTrPs found in FMS patients was found to have a direct correlation with torture power. However, it has been discovered that dormant MTrPs in the scapular rotator muscles alter the pattern of this muscle group's muscle enactment [12-14]. A treatment needle was directly inserted into the MTrPs during dry needling, a less invasive procedure. The evidence from clinical preliminary studies did not support or refute the hypothesis that needling treatments are effective beyond a self-influenced outcome. The quadratus, lumborum, multifidus, and latissimus dorsi muscles can be effectively treated with dry needling on MTrPs, according to a previous study [15, 16]. However, previous research has demonstrated that the immediate reduction in regional and referred pain that occurs after dry needling. Myofascial discharge was a restorative therapy with characteristics of myofascial release [17,18]. The rationale of the study was that, MTrPs were likely to be present in Upper trapezius disability and may vary in muscle distribution and type (i.e., active or latent). We conducted present study with aimed to determine the Association of quality of life and pain intensity in patients of trigger points

METHODS

Study was completed within 6 months, Data were gathered from the Central Park Teaching Hospital, the Mayo Hospital, the Doctors Hospital, and the Jinnah Hospital. The SF 36 Questionnaires were given to respondents in the form of a pamphlet. To avoid biases, it was kept safe after being collected. Our study population includes both male and female trigger point patients. Our investigation focused on the prevalence of disability and quality of life in patients with trigger points. For quality of life and pain, we used the SF 36 Functional Limitation and General Health questionnaire; a visual analog scale was used. Using a SF 36 Questionnaire for quality of life and a Visual Analog Scale for measuring pain after informed written consent was obtained, basic demographic information such as age, sex, self-reported weight, height (from which the Body Mass Index (BMI) was calculated as weight in kg divided by height in meters squared), and smoking were gathered. It was analyzed using SPSS version 25. Bar charts were created after the frequency and percentage were removed from qualitative data. After the mean and standard deviation were looked at, the histogram and the Pi-Chart were taken out of the quantitative data. The chi square method was used to compare pain intensity, overall health, and physical function. p-value was less than 0.05.

RESULTS

Out of total 152 patients, 87(57.2%) were males and 65(42.8%) were females, Patients mean age was 38 ± 12.78 yrs. with minimum age of 22 yrs. and maximum age of 72 yrs (Table 1).

Variables	Frequency (%)
Male	87(57.2)
Female	65(42.8)
Mean Age (Years)	38.8224
Minimum Age (Years)	22.00
Maximum Age (Years)	72.00

Table 1: Statistical data for gender and age

Patients have moderate pain 67(44.1%), severe pain 81(53.3%) and mild pain 4(2.6%)(Figure 1).

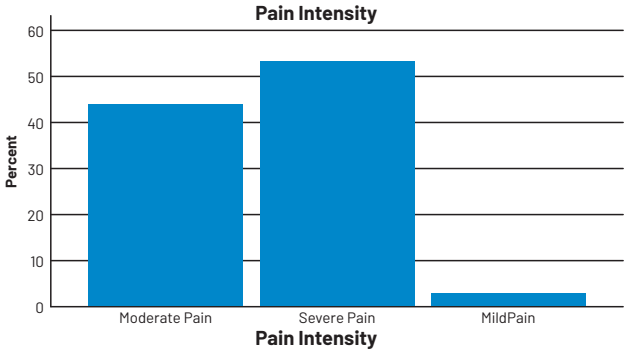

Figure 1: Graphical representation for pain intensity

General health's of patients were poor 67(44.1%), moderate was 81(53.3%) and good were 4(2.6%) and Physical functioning of patients was poor 34(22.4%), moderate was

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86(56.6%) and good was 32(21.1%)(Table 2).

Parameter	Frequency (%)
Poor (general health)	67(44.1)
Moderate (general health)	81(53.3)
Good (general health)	4 (2.6)
Poor (physical functioning)	34 (22.4)
Moderate (physical functioning)	86 (56.6)
Good (physical functioning)	32(21.1)

Table 2: Statistical data for general health and physical functioning

Pain intensity was moderate in 67 patients, severe Pain in 81 and mild Pain was in 4 patients. p-value was <0.0.5, So, we reject the null hypothesis and accept the alternative hypothesis which indicated that there was a significant difference between pain intensity and general health. p=0.00 shown in table 3.

Pain intensity	General health			p-value
	Poor	Moderate	Good	
Moderate Pain	67	0	0	.000
Severe Pain	0	81	0	.000
Mild Pain	0	0	4	.000

Table 3: comparison between pain and general health

p=0.012, p-value was <0.0.5, So, we reject the null hypothesis and accept the alternative hypothesis which indicated that there was a significant difference between pain intensity and physical functioning.

Pain intensity	Physical functioning			p-value
	Poor	Moderate	Good	
Moderate Pain	23	35	9	.012
Severe Pain	11	49	21	.010
Mild Pain	0	2	2	.001

Table 4: Statistical data for pain intensity

*Physical functioning

DISCUSSION

According to current study Out of total 152 patients, 87(57.2%) were males and 65(42.8%) were females. Patients mean age was 38 ± 12.78 yrs. with minimum age of 22 yrs. and maximum age of 72 yrs. 4(2.6%) patients have mild Pain, 67(44.1%) have moderate Pain, 81(53.3%) have severe Pain. 67(44.1%) patients have poor Health quality, 81(53.3%) have moderate health quality and 4(2.6%) have good health quality. Physical functioning of patients was poor 34(22.4%), moderate was 86(56.6%) and good was 32(21.1%). p-value for pain intensity and general health was 0.00, So, we reject the null hypothesis and accept the alternative hypothesis which indicated that there was a significant difference between Pain Intensity and General Health. p-value was 0.012 for pain intensity and physical functioning, So, we reject the null hypothesis and accept the alternative hypothesis which indicated that there was a significant difference between pain intensity and physical functioning. According to previous reviews, the myofascial torment was a common and agonizing event in practically everyone's life. Patients with myofascial agony may have a range of side effects, including excruciating agony brought on by a functional trigger point, an easy restriction of movement, and bending of the posture due to dormant trigger points that were frequently disregarded. According to estimates, aversion to agony is a fairly even-handed stress torment edge in people with TrPs. In order for the underlying delicateness to measure up to estimates after the therapeutic or trial intercession, pressure algometer proved useful in estimating the tension torment edge at a TrP site. One of the main causes of time lost from work was MPS, which can result in delayed dejection and a drastic decline in QOL [19]. According to current study, 43(28.3%) patients were limited at all in vigorous activity, 55(36.2%) were limited a little and 54(35.5%) were not limited at all. 34(22.4%) patients were limited at all for moderate activity, 73(48.0%) were limited little and 45(29.6%) were not limited at all. 25(16.4%) patients were limited at all while lifting, 63(41.4%) were limited a little and 64(42.1%) were not limited at all. 34(22.4%) patients were limited at all while climbing several stairs, 74(48.7%) were limited a little and 44(28.9%) were not limited at all. As previously reviewed, Simons examined the SF-36 sub scores of MPS patients and discovered that the job, agony, and energy ratings were especially low. In terms of agony, energy, actual versatility, rest, and profound responses, patients with MPS had more regretful overall personal contentment than healthy individuals Even while myofascial torment should be noticeable at any age, women who are childbearing age were more likely to experience it [20]. According to previous study, Chang *et al.*, assessed the SF-36 sub scores of patients with MPS and found that the role, Pain, and energy scores were distinctly low. Patients with MPS had the worse health-related quality of life than healthy individuals in terms of pain, energy, physical mobility, sleep, and emotional reactions [21]. According to current study, Patients got sick as definitely true were 28(18.4%), mostly true were 44(28.9%), don't know where 35(23.0%), mostly false were 24(15.8%) and definitely false were 21(13.8%). According to previous study, we had similar observations in our group. The age range of patients with MPS was 16-78 (mean, 40.2 yrs) years which was similar to those found in other studies. The myofascial trigger points frequently seen in upper trapezius muscle (79%) among the studied muscles. It was reported that the most prevalent MTrP was found in the trapezius muscle. Similarly, Chaplin and Morton have reported the frequency of TPs as 84.7% in trapezius. This study also shows that increased frequency of MTrPs was found in upper trapezius followed by levator scapulae, supraspinatus, and infraspinatus. Pressure

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algometer has been used in various researches to measure pressure pain threshold [22].

CONCLUSIONS

Hence it was concluded that majority of the patients with trigger points have poor quality of life and severe Pain. There was association between quality of life and pain intensity.

Conflicts of Interest

The authors declare no conflict of interest

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