MYOFASCIAL PAIN SYNDROME AND TRAUMA IN TORTURE SURVIVORS

Sahin U[1], Tecer A[2], Irencin S[3], Colak S[4],

1. HRFT, Istanbul, Turkey, 2. HRFT, Istanbul, Turkey, 3. HRFT, Istanbul, Turkey, 4. HRFT, Istanbul, Turkey.

ABSTRACT

OBJECTIVES: Myofascial pain syndrome (MPS) is related with overuse or misuse of muscle groups. Micro-traumas, overstretching and psychological stress are other etiological factors. Torture has been a common practice used by security forces in many countries, including Turkey. Most traumatic physical torture methods are beating, hanging by the arms and feet, falanga, electric shock, and positional traumas. Also blindfolding, death threat, mock execution, etc. cause severe psychological stress. This study aims to present cases with torture history and myofascial pain syndrome, and discuss about the causes attributed to torture trauma.

METHODS: Human Rights Foundation of Turkey (HRFT) provides health care and consulting services to torture survivors. In this study, among 1094 people admitted to the HRFT, Istanbul between 2003 and 2006, 26 cases diagnosed as MPS by physiatrist were evaluated. Socio-demographic features; torture, detention and prison history; other signs, symptoms, and diagnoses are evaluated. This is a case series analysis.

RESULTS: 20 of the cases are men, 6 are women. Mean age is 33.7±8.1. All common torture methods were experienced by the cases. Major muscle groups with trigger points are calf, upper and mid-thoracic muscles. Among the other diagnoses are anxiety and somatoform disorders, adjustment disorder, and several arthroses. None of the cases has fulfilled the criteria of PTSD.

CONCLUSIONS: MPS is quite common cause of acute and chronic pain in torture survivors. Overstretch; direct trauma and psychological stress are the main factors. Relations between torture and MPS should be recognized by health professionals.

I- INTRODUCTION

Myofascial pain syndrome (MPS) is often related with overuse or misuse of muscle groups. Micro-traumas, overstretching and psychological stress are among other etiological factors[1].

Torture has been a common practice used by security forces in many countries, including Turkey. Amnesty International reports that torture and ill-treatment committed by security forces, police and other state authorities is documented in 102 countries[2]. The World Medical Association's Declaration of Tokyo (1975), which proscribes physician involvement in torture, defines torture as following:

"[Torture is] the deliberate, systematic or wanton infliction of physical or mental suffering by one or more persons acting alone or on the orders of any authority, to force another person to yield information, to make a confession, or for any other reason (Preamble)."[3]

Severe pain and suffering (either physical or mental) is an integral part of torture. Many torture methods aim at both, and create some specific traumatic outcomes, which are normally not seen following the other traumatic events (such as accidents, street fighting, etc.). Perpetrator uses specific tools and sometimes sophisticated process to afflict the victim as much as possible, and leave as less trace as possible.

Most traumatic physical torture methods are beating and other blunt traumas, suspension (hanging by the arms and feet, including Palestinian hanging or *strappado*), other positional tortures (such as wheel torture, crucifixion on the floor or extended shackling), falanga or *bastinado* (beating the bare soles), electric shock (alone or combined with suspension), pressurized cold water, other cold and ice applications, excessive physical activity, burning and sexual assault. Also blindfolding, death threat, mock execution, sleep deprivation,

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extended solitary confinement and other psychological methods cause severe psychological stress[4],[5].

Suspension, other positional and blunt traumas creates severe overstretching and overload in the joints, muscles, ligaments, and other soft tissues[6]. Trigger points can be appeared or activated following such traumas[7]. Also psychological stress can activate such muscular painful conditions, including trigger points.

This study aims to present cases with torture history and myofascial pain syndrome, and discuss about the causes attributed to torture trauma.

II - METHODS:

Human Rights Foundation of Turkey (HRFT) is an independent non-governmental organization. It has been established by the human rights defenders in 1990. Studies at the HRFT have been carried out in the light of international conventions. Its head office is in Ankara in addition to four offices established also in Istanbul, Izmir, Adana and Diyarbakır[8].

Main focuses of HRFT are prevention of torture and treatment and rehabilitation of the torture survivors. Documentation of human rights violations, publications on the rights and freedoms, reporting activity on torture cases and legal assistance, mounting campaigns, training activities and conducting scientific researches are the other fields on which HRFT has been working.

HRFT provides health care and consulting to torture survivors. HRFT Treatment and Rehabilitation Centers are affiliated members of International Rehabilitation Council for Torture Survivors (IRCT).

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Total 10,786 torture survivors had been admitted to HRFT Treatment and Rehabilitation Centers in Ankara, Istanbul, Izmir, Adana and Diyarbakır between 1990 and 2006. General practitioners, psychiatrists, physiatrists, physiotherapists, and social workers have been working in the Centers as professional staff or volunteers.

Major fields of medical work in HRFT Treatment and Rehabilitation Centers are psychiatric treatment (psychotherapy, psychopharmacotherapy), counseling, and pain management. Exercise, manual therapy, electrotherapy, massage, medication, local trigger point and intraarticular injections are among the therapeutic approaches used in pain management of torture survivors in the Centers. HRFT Centers has also been working as a referral center for other specialized medical care.

294 of 1094 torture survivors who were admitted to the HRFT, Istanbul Center between 2003 and 2006 had been evaluated by staff physiatrist. Among those 294, total 26 cases were diagnosed as myofascial pain syndrome.

Those 26 cases were presented in this study. Basic socio-demographic features, torture and prison history, muscle groups with trigger points, and other signs, symptoms, and diagnoses are being evaluated. This is a case series analysis.

III - RESULTS

1- Demographics:

Basic socio-demographic features of 26 cases with MPS are summarized in Table 1.

Table 1 – Basic socio-demographic features of MPS cases (N=26)

Sex	20 men (76.9%), 6 women (23.1%)
Age	Interval: 18-51; Mean ± SD: 33.7±8.1
Marital status	20 single (76.9%), 5 married (19.2%), 1 divorced (3.8%)
Education (graduate)	2 (7.7%) literate, 10 (38.5%) primary school,7 (26.9%) high school, 3 (11.5%) secondary school, 4 (15.4%) university
Jobs	22 (84.6%) unemployed, 1 (3.8%) university student, 1 (3.8%) nurse, 1 (3.8%) NGO staff, 1 (3.8%) office worker.

2- Admission, Detention and Torture History:

a- Year of admission: All cases were admitted to HRFT Istanbul Treatment and Rehabilitation Center between 2003 and 2006. Most of the cases (10 cases, 38.5%) were admitted in 2003, and consequently 9 cases (34.6%) in 2004, 5 cases (19.2%) in 2006, and 2 cases (7.7%) in 2005.

b- Year of detention: 8 cases (30.8%) were detained after 2000, 16 cases (61.6%) were between 1991 and 2000, 2 cases (7.7%) are between 1981 and 1990. Half of the cases (13 cases) were in custody between 1993 and 1996.

c- Cause of detention: 25 cases (96.2%) had been detained because of political accusation, 1 case (3.8%) of asylum seeking.

d- Duration of last detention: 2 cases (7.7%) stayed in custody more than 1 month, 2 cases (7.7%) in 16-30 days, 12 cases (46.2%) in 8-15 days, 6 cases (23.1%) in 5-7 days, and 4 cases (15.4%) in less than 96 hours.

e- Place of torture: 22 cases (84.6%) were tortured in police centers, 2 cases (7.7%) in military bases, 1 (3.8%) in the street, and 1 (3.8%) in prison.

f- Prison history: 24 cases (92.3%) stayed in prison after the last detention and torture. Patient stayed in prison between 3 and 240 months. Mean time of confinement (±SD) was 94.4 ± 60.0 months.

g- Torture methods: All common torture methods were experienced by the cases. Psychological traumas such as insult, blindfolding, death threat, mock execution, excessive solitary confinement, etc were often seen. Physical torture methods were also commonly used. All but one case (96.2%) were experienced beating and blunt trauma. Electric torture were experienced by 14 (53.8%), suspension by 11 cases (42.3%). Frequency of major physical torture methods are shown in Table 2.

Table 2 – Most commonly used physical torture methods among MPS cases (N=26)

Torture Methods	**Frequency**	**% among cases**
Beating and blunt trauma	25	96.2
Electric shock	14	53.8
Pressurized cold water	14	53.8

Suspension	11	42.3
Cold torture	11	42.3
Sexual assault	10	38.5
Other positional torture	9	34.6
Falanga (*bastinado*)	7	26.9
Excessive physical activity	6	23.1

3- Pain History and Muscle Groups:

a- Painful regions and duration:

Most of the cases had pain complaints in the cervical, scapular and back regions. Regions of pain are shown in Table 3.

Table 3 – Painful regions in MPS cases (N=26)

Regions	**Frequency**	**% among cases**
Cervical	15	57.7
Scapular and dorsal	12	46.2
Upper extremities	9	34.6
Lower extremities	9	34.6
Lumbar	4	15.4
Headache	2	7.7

Most of the cases were chronic or reactivated. In more than half of the patients (15 cases, 57.7%), complaints started 1-3 years before they were admitted. In 2 cases (7.7%) 4-6 years before the admission, in 4 cases (15.4%) 7 years or later, and only in 5 cases (19.2%) complaints started 1 year before or earlier.

b- Trigger points: Major muscle groups with trigger points are upper and mid-thoracic (mainly trapezius and rhomboids) and calf muscles (gastrocnemius and soleus). Distribution of trigger points in the muscles is shown in Table 3.

Table 4 – Distribution of trigger points in the muscles in MPS cases (N=26)

Muscles	Frequency	% among cases
M. trapezius (upper, middle and lower)	15	57.7
M. gastrocnemius and M. soleus	8	30.8
M. rhomboideus major and minor	7	26.9
M. levator scapulae	5	19.2
M. sternocleidomastoideus	2	7.7
M. biceps femoris	2	7.7
M. erector spinae lumbalis	2	7.7
M. splenius capitis	1	3.8
M. lattisimus dorsi	1	3.8

c- Other musculoskeletal symptoms and diagnoses: There are other musculoskeletal and pain symptoms and pathologies other than muscle pain and trigger points. These are lumbar disc herniation, cervical disc herniation, neuropathic pain and hypoesthesia, dizziness, patellar condromalacia, ill posture, supraspinatus tendinitis, impingement syndrome, brachial plexus injury, and osteoarthrosis.

4- Psychiatric Evaluation:

18 of 26 cases had been examined by staff psychiatrist in the HRFT Istanbul Treatment and Rehabilitation Center. 6 of those 18 cases did not express any specific psychological complaints. The major symptoms and findings in other 12 cases are following: Concentration difficulties, memory impairment (both in 8 cases, 30.8%), anxiety, sleep disturbance (both in 7 cases, 26.9%), hypervigilance (5 cases, 19.2%), agitation (irritability, hyperactivity), fatigue, depressive affect, anhedonia, blunted affect, fear and hopelessness, suicidal thoughts, and dyspareunia.

11 cases had at least one psychiatric diagnosis (Table 5). None of the cases has fulfilled the criteria of PTSD.

Table 5 – Psychiatric disorders of MPS cases (N=26)

Disorders	Frequency	% among cases

Adjustment disorders	3	11.5
Anxiety disorders	3	11.5
Other mood disorders	2	7.7
Somatoform disorders	2	7.7
Amnestic disorders	1	3.8
Depressive disorders	1	3.8
Sleep disorders	1	3.8

5- Treatment and Outcome:

Treatments which were given in the Center by physiatrist and physiotherapists to MPS cases are shown in Table 7.

Table 7 – Treatment options applied to MPS cases (N=26)

Treatment	**Frequency**	**% among cases**
Exercise (stretching and strengthening)	26	100
Medication (analgesics and myorelaxants)	18	69.2
Trigger point injections	10	38.5
Electrotherapy (TENS, Ultrasound, Heat) and Massage	6	23.1
Sole support	1	3.8

Outcome of the treatments are several. 9 patients (34.6%) were cured, and 8 (30.8%) were relieved after few weeks of treatment. Treatment of 9 patients were interrupted and not completed.

IV- CONCLUSION

Torture causes severe direct crash, overstretching and overload of the muscles and soft tissues, as well as psychological stress. This study shows that Myofascial Pain Syndrome is one of the painful diseases in torture survivors, due to traumatic events caused by torture. We can conclude the following:

1- Literature about torture and myofascial pain syndrome is very limited. In a recent study, Danneskiold-Samsoe et al. described several torture survivors with fibrositis syndrome/fibromyalgia and regional muscle pain, but did not mention Myofascial Pain Syndrome[9]. In this study, 21 torture survivors were evaluated, and 17 cases were diagnosed as fibrositis syndrome/fibromyalgia and 11 cases as regional muscle pain.

2- In our study, cervical, scapular and upper extremity symptoms are the most common ones. Trapezius, rhomboids, and levator scapulae are the most affected muscles. As many patients experienced suspension, other positional traumas and electric torture, we can conclude that the overstretching due to suspension and overload and extreme spasm due to electric shock can activate trigger points in the scapular and upper-mid thoracic muscles.

3- Trigger points in the calf muscles (gastrocnemius and soleus) are commonly seen. Although Savnik et al. did not discuss about the relationship between trigger points and falanga torture in a study about falanga[10], we think that falanga can contribute to the activation of trigger points in the calf muscles as well as other common causes like overstretching, psychological distress and direct trauma.

4- Many patients with muscle pain have chronic active trigger points. Persisting pain in the torture survivors in very long term is well recognized in torture rehabilitation practice. Olsen et al. concluded in a recent study that two decades after the torture took place; increasing proportions of survivors seem to suffer from pain associated with the type and bodily focus of the torture[11]. But in our study, this chronicity can also be related to the long prison history for most of the patients. Since the patients had been imprisoned just after the torture period and stayed in the prison for a long time without any proper medical facilities, trigger points as well as other symptoms and findings had become chronic. Because of the patients can apply to HRFT centers, only after they were released, usually we cannot see very acute cases.

5- Many torture survivors have severe psychological distress and show recognized psychiatric symptoms and findings. These psychiatric disorders can contribute all chronic pain

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conditions, as well as MPS. In this study, none of the patients fulfilled the criteria of Post Traumatic Stress Disorder, which is a classical psychiatric syndrome in torture survivors. Relationship between psychological distress and MPS in torture survivors can be elaborated.

Although chronic pain is becoming more recognized in torture rehabilitation[12], physicians are still not recognizing myofascial trigger points with sufficient attention. This study shows that MPS is quite common cause of acute and chronic pain in torture survivors. Relationship between torture and MPS should be recognized by health professionals and further research about the issue is needed.

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