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Case report

Self-Inflicted Burns in Patients with Chronic Combat-Related Post-Traumatic Stress Disorder

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A B S T R A C T

This study examined self-inflicted burns in case series of four patients with chronic combat-related post-traumatic stress disorder (PTSD). Those patients were hospitalized in the Burn Unit of the University Hospital of Traumatology in Zagreb because of severe burns and had a premorbid psychiatric history of PTSD. Demographic data and information regarding the circumstances surrounding the incident, burn severity, treatment and outcomes of these patients were collected. The authors have analyzed possible impacts of the sensationalistic way in which media present cases of self-inflicted burning that induce other, new cases of this suicide type, known in the literature as »Werther's syndrome«. The importance of multidisciplinary approach in the treatment of burn patients is stressed with emphasis on the important role of liaison psychiatrist in treating these patients. It is necessary to educate media people to avoid sensational reporting on this kind of events. Continuous psychiatric treatment of vulnerable individuals could be useful in prevention of self-inflicted burns.

***Key words**: burn patients, post-traumatic stress disorder, Werther's syndrome, multidisciplinary approach, liaison psychiatrist*

Introduction

Burns are defined as skin traumas caused by thermal, electrical or chemical agents. In patients with severe burns and their families this burn can greatly change their lives in years to come[1]. Severe burn is an extremely traumatic experience related to long-term and painful treatment as well as reintegration into society[2,3]. Burns can be inflicted accidentally or purposely – one person burns another or it can be an act of self-hurting[4]. Self-inflicted burning is common in persons who try to escape from a stressful situation or it is a suicidal attempt[4,5]. Studies[6–8] have shown that self-inflected burning, so called *self-burning*, is a rare suicidal method in West European countries while those rates are lot higher in Iran, India and Zimbabwe[9–11]. In the United Kingdom, the incidence of assault by burning and of self-inflicted burns increased significantly over the last decade. This has major implications both for service providers and society as a whole[12]. Common method of self-inflicted burning is usage of open flame with accelerators (petrol, paraffin, color suspensors), which cause greatest burns and additionally cause high mortality[5,13–18]. Body parts most affected by self-burning are the torso, upper limbs, face, lower limbs and back[6,7,19]. Most of the patients who try or commit suicide by self-inflicted burning already have a history of mental disease and earlier suicide attempts[8,19,20]. Disorders mostly related to self-inflicted burners are affective disorder, schizophrenia and personality disorders[4–7,13–16], but this particular act can also be caused by economical or social problems (marital problems, financial problems, job-finding problems) or recent life stress[4,19]. War experience is a significant source of stress that affects, with more or less intensity, the entire population, especially those who participated in it. Consequences are so traumatic that they significantly exceed the ability of most people to successfully cope with it[21]. Since the war is an intentional human act, it leaves behind more severe

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psychological consequences in experiencing and behaving[22]. In Croatia many war veterans developed post-traumatic stress disorder (PTSD), and from years 1991–2006 a total of 1,751 of them committed suicide. PTSD patients mostly commit suicide by hanging or with firearms. However, during years 2005 and 2006 a higher incidence of suicide attempts in PTSD patients by self-inflicted burning was noticed. One of the possible explanations for that could be a presence of PTSD and co-morbid depression, personality disorder, psychosis, etc. The second explanation of this noticed trend, which we believe is more likely, is *induction of this kind of suicide via media*. Namely, researches have shown that self-inflicted burning in public places is often reported on in a very sensationalistic way, so in such a way the press and visual media actually support and popularize the concept of self- inflicted burning in public places as a method of social and political protest[23,24]. Having this in mind, various authors[25,26] offered media instructions for more responsible suicide reporting in order to decrease the copying rate of this violent act as much as possible.

Case Report

This study presents a case series of four patients who were in short period of time hospitalized in the Burn Unit of the University Hospital of Traumatology in Zagreb, Croatia, after sustaining severe burns by self-inflicted burning, and with psychiatric comorbidity of combat-related chronic PTSD. The study shows patients' characteristics, characteristics of burns (total burn surface area (TBSA), burn level, the mechanism of burn injury, localization), as well as the course and outcome of treatment. Media reporting on these events was also described, as well as reporting on these particular four patients and some other similar cases in Croatia.

S.N., male, age 34, from Koprivnica, attempted suicide by self-inflicted burning on December 1st 2005 and he was hospitalized in the Burn Unit of the University Hospital of Traumatology in Zagreb for 56 days. The patient burned himself with gasoline and he sustained burns on the face, both upper limbs, both lower limbs together with inhalation injury. TBSA was 30%, and burn depth was IIB-III. During the war in Croatia, the patient experienced a number of traumatic events and he was treated for PTSD and alcoholism. During the treatment of extensive burns he developed all symptoms of burn disease with a few septic attacks. The patient was treated for PTSD with irregular usage of psychotropic drugs. During the hospitalization in the Burn Unit he was treated with midazolam and later on with sertralin, zolpidem, together with morphine and tramadol for pain. Several operative procedures were performed as well, together with thumb amputation. Spontaneous ventilation and hemodynamic stabilization were established after 15 days, mobilization and physical therapy were started and after having finished treatment in the Burn Unit, the patient was transferred to the psychiatric department of a county hospital. It is important to mention that this patient, when being in the psychiatric department, described his suicide attempt to a psychotic female fellow-patient, who a few days after leaving the hospital, tried to commit suicide in the same way – by self-inflicted burning. After a few days of treatment in the Burn Unit of the University Hospital of Traumatology, she passed away.

G.K, male, age 45, from Zagreb, attempted suicide by self-inflicted burning on April 20th 2006. The patient tried to burn himself with gasoline and his medical history revealed that one year earlier he tried to burn down a barn. Later on he denied both attempts and was trying to show it as accidental incidents. The patient was being treated for PTSD since 1995 but was using medications irregularly. In his attempt to burn himself he sustained burns on the head, neck, thorax, both forearms and fists, together with inhalation injury. TBSA was 30%. He spent 17 days in the Intensive Care Unit (ICU), also with development of complete burn disease and its complications. Analgesics he was given included morphine and sufentanil, and later on morphine and oxycodon; of psychotropic drugs he was given promazin, haloperidol and biperiden. Three operations in terms of necrectomy and plastic surgery were performed. On May 19th, because of agitation, consultant psychiatrist was summoned and he diagnosed paranoid psychosis and personality disorder with comorbid PTSD and from pharmacotherapy he recommended sulpirid, karbamazepin, promazin, haloperidol and clonazepam. The patient was released after burns rehabilitation. Media monitored this event by sensational reporting.

D.P, male, age 36, tried to burn himself in a car on April 26th 2006 and was brought to the Burn Unit of the University Hospital of Traumatology in Zagreb. TBSA was more than 80%, the burn degree was IIB-III. He sustained burns on the head, neck, thorax, abdomen and lower limbs. He had been treated for PTSD but didn't take any medications. Considering extensiveness and depth of burns, together with inhalation injury, patient was treated in the ICU. Despite intensive care measures and resuscitation, he died after 24 hours. This event was on the front page of every newspaper with articles and comments later on.

S.T, male, age 44, from eastern part of Croatia attempted suicide by self-inflicted burning and sustained burns of the face, neck, larger part of the torso and limbs. TBSA was 70%. Burn degree was IIB-III. The motive for attempting suicide was a quarrel with his wife and unsolved veteran status. During Croatian war he was exposed to a number of traumatic experiences as a commando on the front lines and a number of his combat-soldiers from his brigade committed suicide. For the last three years he was being treated for chronic PTSD with comorbid personality disorder. S.T. douched himself with gasoline and when policeman tried to stop him, he set himself on fire and at the same time burned the policeman as well. The patient was admitted to the ICU of the Osijek University Hospital and was transferred to Zagreb on June 7th to the Burn Unit of the University Hospi-

tal of Traumatology. Because of extensive burns with all complications related to the development of burn disease (hemodynamic instability, respiratory insufficiency, multi-organic failure, sepsis) treatment was intensive. Analgesics were administered, included morphine, sufentanil, and from psychotropic drugs he received diazepam, promazin, haloperidol and biperiden. One operation was performed, but the patient died several days later. From the first moment of this injury media were covering this incident on front pages for several days, accompanied by TV news, sensational reporting with photos, provoking compassion, denunciation of state institutions etc.

This case report presents several self-inflicted burn cases among Croatian war veterans treated for chronic PTSD. It is noticeable that all off them sustained extensive burns and had many complications in terms of developing actual burn disease. It has been shown that self-inflicted burns could be much more dangerous and have a more drastic outcome than other burns, that is, those burns are larger and patients with self-inflected burns spend more time in hospital[5,13–15], with higher mortality[5,13–16]. In those case series of patients, the way of burning is similar, all patients were of the same gender and similar age and most of them didn't have a solved war-veteran status. The extent and the depth of the burn injuries could explain the high mortality rate seen in these patients. It is also noticeable that they didn't regularly consume medications that were prescribed to them by psychiatrists and that, besides PTSD, they had some other associated psychiatric diagnoses.

What is the possible reason for higher incidence of suicide attempts in PTSD patients by self-inflicted burning? One of the possible explanations would be a presence of different comorbid psychiatric disorders beside PTSD, such as personality disorders and psychosis. Another possibility is that after such a case is reported by media, this specific person or his family gets more attention and support from society and various privileges or awards. In this way self-inflicted burning is promoted as a legitimate way of protest, as if it were something normal and common. Many Croatian war veterans have different problems and sometimes they feel jeopardized and resigned so it's possible that they feel that self-inflicted burning may be an efficient way to get out of this frustrating and degrading situation, especially because this kind of acts attracts great media attention.

According to Phillips[24,27], suicides that get great media attention can serve as a »trigger« for future suicides, that is, they can induce imitation of a sensationally reported act. Subsequent phenomena called »Werther's effect« is closely related to the theory of social learning according to which media exposed act serves as a model that people with suicidal tendencies tend to use by identifying with a person that did it, so they are encouraged to do the same thing as a person who gained media attention[28,29]. Besides, it has been shown that copying of suicidal method will be higher in accordance with greater attention that press media give to a certain act[24,27,29]. Phillips' researches[30–32] have also shown that suicidal rate was increased by 12% after Marilyn Monroe committed suicide, that public reports of suicides of ordinary people also increase suicidal rate, that public reports of homicide-suicide increase the rate of fatal car and plain crashes and that after reporting natural death of celebrities the suicide rate doesn't increase, which shows that grief itself is not an impact factor. Things mentioned above show that publicity is significant and that media play the important role in inducing and inhibiting suicides.

In addition to the presented cases, there were few more cases of self-inflicted burning in Croatian war veterans reported in media. For instance, on April 1st 2005 a Croatian war veteran started a hunger strike because of his unsolved status and ended it after the agreement was made. But afterwards, when the state secretary said on local television that he didn't submit his documentation on time, he gave them an ultimatum that either will the minister of veterans come to his place or he will commit suicide by setting himself on fire. He douched himself with gasoline and switched the lighter, but the police managed to prevent the tragedy. State secretary apologised via media saying that he mistakably looked at some other veteran's documentation instead of his. A few days later, on April 6th 2005, former tank driver in guardian brigade in other part of Croatia douched himself with gasoline, drank gasoline and burned out. Besides PTSD he had a severe mental disease. The very psychotic state with PTSD symptoms contributed to the bizarre way of self-inflicted burning and he was more suggestible to media. He was unemployed, without family and any income except for small social allowance and a small pension from his father. According to his sister's words, he unsuccessfully tried to solve his status as a disabled war veteran to get a pension. His family gave statements for media on several occasions about his death being connected to solving his status with open accusations directed towards state institutions. His sister also told the media how he was inspired to self-inflicted burning by a recent case when a war veteran tried to set himself on fire. All these events were followed by media on front pages, main television news, but all without consulting professionals, emphasizing how these people have nothing else left to do because of state inefficiency. This trend continued and on December 6th 2006 another veteran threatened to set himself on fire because of unsolved existential problems. Only after hours of negotiating with media and highly positioned politicians he gave up. On January 5th 2007 the policeman in Zagreb also succeeded in preventing a Croatian war veteran to commit suicide. He douched himself with gasoline and threatened to burn himself. Using successful negotiation, a policeman prevented the tragedy and took the man into the custody. The motive of his threat was the fact that he had been thrown out of his apartment. It is interesting to say that patients were of the same gender, similar age, and they also had similar motives for suicide and the same psychiatric diagnosis.

A huge problem in treating these patients is burn pain. Burn pain is one of the most complex and most in-

tensive pains in clinical medicine in general, and its treatment represents a great challenge to professionals[1–3] Acute pain often transfers into chronic one, and in addition to somatic and visceral, it also has a neuropathic component. Strong opioid analgesics are used in the treatment of burn-related pain. The usage of psychopharmaceutics is also a great challenge, especially in the patients with the already existing premorbid diagnosis of PTSD, or even a psychotic disorder in some cases. Psychiatrist has to be well acquainted with side affects of these medications, as well as their interaction with other medications, especially because of the frequently extremely severe clinical picture and vital endanger of a patient. When treating these patients, principles of rational polypharmacy should be used. With regard to the complexity of psychological disorders in certain phases of the treatment, and burn disease as an often life-threatening condition, the liaison psychiatrist helps other team members in the process of diagnostics, conceptualization and treatment of burn patients to choose most adequate therapeutic strategies designed in accordance with individual needs of every patient in the specific phase of treatment[1–3]. Suicide shouldn't be shown in media as a justified act or act of courage, and it would be mandatory to avoid reporting on act details. More attention should be directed to negative concurrent consequences of the committed act, and photographs of a person attempting or committing suicide or place of suicidal act should never be shown. With regard to the fact that people tend to imitate one another, doing good or bad things, it would be good if media, as a strong socializing factor, could try to make a balance between violent and non-violent, positive stories. Since suicides and suicide attempts are often performed in the interregnum between psychotrauma and inability to find adequate coping strategy, reports and articles appearing in the media may affect the choice of negative coping strategy and so induce suicide as the only way out. In addition to well-organized programs and professionally ethical articles in daily press, it is possible to make a significant contribution towards a positive change in the attitudes in terms of promoting vital and social motives, and consequently reducing suicide rates.

Conclusion

Burn care professionals should be familiar with self-inflicted burn patients who have comorbid chronic PTSD and require constant psychiatric support in addition to burn care. The liaison psychiatrists have a wide range of activities in the treatment. With rational usage of psychotropic drugs and with appropriate psychotherapeutic interventions, the psychiatrist participates in reduction of psychiatric symptomatology, together with improvement of patients' quality of life. Better knowledge of specific risk and protective factors would be a great benefit in understanding psychological health after trauma in general, as well as in development of instruments to identify patients with higher risk. In order to create an anti-suicidal atmosphere in the media, it is necessary to organize professional education of persons responsible for programs and articles in media so that principles of positive coping strategy can be taught to media people.

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SAMOZAPALJENJA KOD BOLESNIKA S KRONIČNIM, RATOM UZROKOVANIM POSTTRAUMATSKIM STRESNIM POREMEĆAJEM

S A Ž E T A K

U ovom su radu analizirana samozapaljenja kod četiri bolesnika s kroničnim posttraumatskim stresnim poremećajem (PTSP). Ovi su bolesnici hospitalizirani na Odjelu za opekline Klinike za traumatologiju u Zagrebu zbog ozbiljnih opeklina, a imali su premorbidnu psihijatrijsku povijest PTSP-a. Kod svih bolesnika prikupljeni su demografski podaci, podaci o okolnostima ozljeđivanja, karakteristikama opeklina te tijeku i ishodu liječenja. Autori su analizirali mogući utjecaj senzacionalističkog prikazivanja samozapaljenja bolesnika kao mogućeg faktora induciranja novih slučajeva pokušaja suicida, poznatog u literaturi kao Wertherov sindrom. Naglašena je važnost multidisciplinarnog pristupa u liječenju opeklinskih bolesnika s važnom ulogom suradnog psihijatra. Nužna je edukacija novinara u cilju sprječavanja senzacionalističkog izvještavanja o ovakvim događajima. Kontinuirano psihijatrijsko liječenje vulnerabilnih bolesnika može biti korisno u prevenciji samozapaljenja.