

Case Study

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Case study of patients with self-inflicted burns in Samarkand, Uzbekistan

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Abstract

Burns are serious health problems that are associated with high mortality and morbidity in developing countries. Suicide by burning is among the most dramatic of all forms of suicide. The results of treatment of 218 patients with suicide hospitalized in Samarkand Branch of RSCUMA were analyzed during the period from 2005 to 2018. All cases with unequivocal evidence for suicide attempt (as determined by the psychiatrists) were included. Research has shown Suicide can be qualified as planned and unconscious spontaneous. In most committing suicide by self-burning, their act is mostly spontaneous and necessitates the development of specific prevention and treatment methods at the pre-hospital, in-hospital, and post-hospital stages.

Keywords: Burns; Suicide.

Introduction

Burns are serious health problems that are associated with high mortality and morbidity in developing countries. Suicide by burning is among the most dramatic of all forms of suicide. Perhaps more than any other form of self-destruction, the act of suicide by burning has a long documented history of powerful cultural meaning and political impact across much of the world [1]. The incidence, pattern and trends of suicide differ considerably between Asian and Western countries. They also differ considerably among Asian countries. In studies from the Middle East, for instance, the vast majority of victims of self-inflicted burn injuries are young women, accounting for more than 25% of all admissions to burn centers [2]. Every year 7,03,000 people take their own life and there are many more people who attempt suicide. Every suicide is a tragedy that affects families, communities and entire countries and has long-lasting effects on the people left behind. Suicide occurs throughout the lifespan and was the fourth leading cause of death among 15-29 year-olds globally in 2019 [3]. Marked differences in suicide rates also exist across different countries. It should be noted

that attitudes towards suicide continue to vary across cultures and religions, and reporting may therefore be more or less accurate depending on geopolitical region. Suicide is important for research as it contributes to premature mortality, accounting for nearly 1.5 million people worldwide every year (or 22.5 million Years of Life Lost), with 76% in low- and middle-income countries, approximately 60% of which occurs in Asia alone. The study revealed that compared to the global suicide rate of 11.4 per 100,000 individuals, in Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan), rates of suicide mostly exceed it, with the highest in Kazakhstan - 48.1 [4,5]. The purpose of this present study is to evaluate, with assistance from psychiatrists and burn specialists, all individuals hospitalized at the Burn department of RSCUMA Samarkand Uzbekistan, following attempted suicide by fire.

Material and methods

A retrospective evaluation of patient's severe foot burns underwent treatment between 2005 and 2018. This study was approved by Samarkand Centre of Emergency Medical Care (RCSUMA). All cases with unequivocal evidence for suicide attempt

(as determined by the psychiatrists) were included. Twenty-three were males and eight were females (Table 1). Most suicidal patients (173) had a history of depressive episodes and emotional unstable disorders; 28 patients had a known history of psychiatric illness. In 9 patients alcohol intoxication was present at the moment of suicide. Chronic alcohol dependence together with basic psychic disease was documented in 8 patients.

Table 1: Sex/ age distribution of suicidal patients.

No	Age	Males	Females	%
1	15-20	1	37	38 (17.4%)
2	21-30	8	98	106 (48.6%)
3	31-40	4	29	33 (15.1%)
4	41-50	7	16	23 (10.6%)
5	51-60	9	9	18 (8.3%)
Total	218	29	189	100%

Table 2: Diagnostic psychiatric distribution of suicidal individuals.

No	Age	Males	Females	%
1	Depressive episodes and emotional unstable disorders	1	172	173 (79.4%)
2	Psychiatric illness	10	18	28 (12.8%)
3	Alcohol intoxication	9	-	9 (4.1%)
4	Chronic alcohol	7	1	8 (3.7%)
5	Total	27	191	100%

Results and discussion

In most patients burns were severe involving 45-70% of the body surface area associated with inhalation burn. Mortality rates increased with increasing TBSA involved (Table 2). On admission, 112 patients were diagnosed with inhalation injury. Gastrointestinal bleeding occurred in 21 patients. Esophageal and gastric ulcerations were diagnosed endoscopically in 19 patients, and duodenal ulcerations in 7 patients. All patients with burn shock underwent general clinical examinations of: Cardiovascular and respiratory systems, functions of the liver, kidneys and gastrointestinal tract for revealing of poly organ. Clinical analyses of blood and urine were carried out. Taking into account the traumas of this type, careful control of arterial pressure level in dynamics, temperature reaction, respiratory and pulse rate, measuring of hourly and daily diuresis were of particular significance. The most severe disturbances in the shock period are observed in cardio respiratory system of patients with burns. Thermal inhalation injury severity can be determined not so much by airway burns but by toxic inhalation damage to the lungs and whole body with high toxic gaseous and vaporized chemical components of smoke. Impairments of central hemodynamic due to extra and intra cardiac distress are characteristic for acute period of burn trauma first of all. An overwhelming majority of suicides in the world occur in the low and middle income countries of the world where resources and services for identification and intervention are very scarce. Over 60% of the world's suicides happen in Asia [6]. Despite an over reliance on existing data sets, suicide trends in the Central

Asian countries reportedly were stable over a period through the 1990s (Wasserman & Varnik, 1998), but newer data remains unavailable to access prevalence. The study also finds high variability in the suicide rates between the different countries in Central Asia. Future research is needed in the field to more fully identify risk factors associated with suicide ideation or attempts it is noteworthy that female suicides are far more prevalent in the poorer countries of the world. At present, attempts to commit suicide by fire are taking place in Central Asia [7]. These quotes are not an exhaustive list of publications on self burning attempts as a form of protest in Kyrgyzstan, Tajikistan, Uzbekistan and its victims are not only women but men as well. Having chosen this way to take their lives, they protest against unsolved social problems. The essence of these quotations is that "three employees of the tax inspection board got off with nothing more than being discharged because a woman burned herself after they confiscated her property [8]. During social-economic transformation of a society self burning and suicidal acts are forms of protest against injustice and harsh laws and they are not rare. Studies in The Burn Department of the Centre of Emergency Medical Care (RCSUMA have reported that burns involving over 40% body surface area resulted in 80% mortality, while 100% mortality was reported in patients with involvement of over 70% of total body surface area.

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