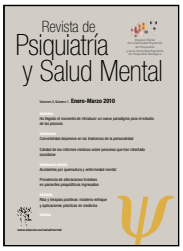
Rev Psiquiatr Salud Ment (Barc.) 2010;**3(1)**:19-22

Revista de Psiquiatría y Salud Mental

www.elsevier.es/saludmental



BRIEF REPORTS

Burns and Mental Disorder

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Received on 26 May, 2009; accepted on 28 December, 2009

KEYWORDS
Burns;
Mental disorders;
Postraumatic stress disorder;
Adjustment disorder

Abstract
Introduction: The study aimed to explore the prevalence of previous mental disorder and the incidence of adjustment and posttraumatic stress disorder in 60 patients with burn injuries admitted to a major burn unit in the greater Madrid area.
Methods: A total of 57 patients were assessed for serious past and present mental illness by using a semi-structured clinical interview. Current DSM-IV adjustment and posttraumatic stress disorder were assessed 6 months post burn with the structured clinical interview SCID.
Results: 60 patients were hospitalized for severe burns during the study period. 11 (17,9%) burns took place intentionally. 9 patients had tried to commit suicide. 33.5% of the participants had suffered any kind of mental disorder previously. 23 (52.3%) patients met criteria for adjustment disorder and 8 (18%) for posttraumatic stress disorder 6 months post burn.
Conclusions: The results demonstrate the importance of routine screenings of psychological symptons in burned patients. It is also necessary to promote specific psychopharmacological measures and specific psychotherapeutic interventions in this population in order to improve their medical and psychiatric prognosis and their quality of life a long-term basis.

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1888-9891/$ - see front matter

PALABRAS CLAVE
Quemaduras;
Antecedentes psiquiátricos;
Trastorno adaptativo;
Trastorno por estrés postraumático

Accidentes por quemadura y enfermedad mental

Resumen
Introducción: En España se producen unos 12.000 accidentes por quemaduras cada año. La Unidad de Grandes Quemados y el Servicio de Cirugía Plástica del Hospital Universitario de Getafe son de referencia nacional en el tratamiento de las quemaduras. En los últimos años, diversos autores han apuntado la estrecha relación entre enfermedades psiquiátricas y accidentes por quemadura. El objetivo del presente estudio es estimar la prevalencia de antecedentes psiquiátricos y la incidencia de trastorno adaptativo (TA) y trastorno por estrés postraumático (TEPT) en pacientes ingresados por quemaduras en el HUG entre el 1-1-2008 y el 31-6-2008.
Métodos: Se evaluó a los pacientes al ingreso mediante entrevista clínica semiestructurada, para determinar presencia y tipo de antecedentes psiquiátricos y a los 6 meses para determinar si tenían o no TEPT y/o TA mediante la entrevista clínica estructurada SCID.
Resultados: Sesenta pacientes estuvieron ingresados por quemaduras en el período de estudio. El 17,9% de las quemaduras se produjeron de manera intencional (9 autoagresiones y 2 heteroagresiones). El 33,5% de los pacientes presentaban antecedentes psiquiátricos. El 52,3% de los pacientes cumplían criterios de TA y el 18% de TEPT a los 6 meses del accidente.
Conclusiones: Los resultados señalan la importancia de promover el cribado de los síntomas psicológicos de todo paciente que ingrese por quemaduras. Es necesario poner en marcha programas de apoyo psicoterapéutico y medidas de apoyo farmacológico adecuadas para cada paciente para poder mejorar la evolución médica y psiquiátrica y favorecer una adecuada integración familiar, laboral y social.

Introduction

In Spain, approximately 12 000 accidental burns and 5800 hospital admissions due to burn injuries are produced each year.[1]

Burn injuries constitute a traumatic and destructive life experience for the individual, with evident functional and cosmetic sequelae and an enormous impact on the family, social and occupational life of the patient. Over the past few decades, the therapeutic emphasis on survival has led health care professionals to underestimate the emotional and psychiatric aspects associated with burn patients.

In recent years, a number of epidemiological studies have pointed out the close relationship between burns and psychiatric disorders. On the one hand, psychological factors could be implicated in burn injuries in up to 68% of the cases.[2] Up to 35% of burn patients have a psychiatric history and, in 15%, the psychiatric history would be causally related to the burn.[3] Moreover, the presence of a psychiatric history would predispose the patient to the development of symptoms of adjustment disorder (AD) and/or posttraumatic stress disorder (PTSD) and would imply a worse medical course in patients of this subtype.[4]

On the other hand, burns are a risk factor for the development of certain mental disorders. Between 46.6% and 59.4% of burn patients develop some kind of psychiatric disorder within the first six months after the accident,[5,6] with AD (13% to 61.5%) and PTSD (17.8% to 45%)[6-14] being the most common diagnoses in this population. Acute stress disorder, panic disorder and disorders caused by substance abuse or dependence are also common.[4]

Finally, up to 63% of burn patients come to need psychological help during the hospital stay and up to 78% report having had difficulties in the family and/or social/occupational setting after discharge. In fact, the National Burn Care Review Committee recommended psychosocial screening and access to different psychological supports and treatments for all the burn patients who required hospital admission.[3]

The Major Burns Unit (MBU) and the Plastic Surgery Service (PSS) of Hospital Universitario de Getafe (HUG) are national referral centers for the treatment of burn injuries. The work involving mental health, at present, is limited to specific interventions that are carried out by means of written referrals to other professionals within the hospital, requesting the services involved. The initiation of programs for psychological support and treatment in burn patients requires us to know the burden of mental disease in relation to accidents involving burns. There are few epidemiological studies on psychiatric disorders in burn patients and, in Spain, they are practically nonexistent. Thus, we consider it necessary to undertake this research study.

The objectives of the present report are: 1) to describe the sociodemographic variables and those related to burns; 2) to estimate the prevalence of a psychiatric history; and 3) to calculate the incidence of PTSD and AD during the first six months after the burn injury.

Methods

The study population consisted of patients admitted to the MBU or the PSS of HUG with burn injuries between November 1, 2007, and April 30, 2008. The burns had to be the principal or secondary diagnosis on the charts corresponding to the Minimum Basic Data Set (MBDS) at hospital admission. The patients (or their legal guardians) should, moreover, give their informed written consent. Those patients in whom it was not possible to carry out the clinical interview and patients under the age of 15 years were excluded from participation in the study.

The patients were evaluated at the time of admission by means of a semistructured clinical interview to determine both the presence and the type of psychiatric background. Six months later, they were reevaluated to determine the presence or absence of PTSD and/or AD throughout said period. For this purpose, we employed the Structured Clinical Interview (SCID) associated with the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). We studied epidemiological variables related to burns and related to psychiatric disorders, calculating the means (together with their standard deviations [SD]) and percentages. The results were analyzed using the SPSS 11.0 statistical software package.

Results

Epidemiological characteristics. During the study period, 60 burn patients were admitted; three were excluded for being under 15 years of age. Forty (70.2%) were men. The mean age was 47.3 years (SD=22.1 years). Of the patients included, 43.1% (n=22) were married, 35.3% (n=18) were single; 11.8% (n=6) were widows or widowers and 9.8% (n=5) were separated or divorced. Twenty-five (50%) were working, 14 (28%) were retired and 2 (4%) were studying at the time of the accident. Seven (13.8%) lived alone, and 75.4% were native Spaniards.

Characteristics related to the burn injury. With regard to the mechanism causing the burns, 38 were due to flames, 13 were caused by scalding, five were electrical, four were due to flammable liquids, three occurred through contact and one was caused by a chemical. In 50% of the cases (n=28), there was some type of medical and/or surgical background. The percentage of the body surface burned ranged between 1% and 85%, with a mean of 20.1% (SD=20.7%). In all, 59.6% of the patients (n=34) required admission to units for major burn victims; 38.6% (n=22) were affected by associated smoke inhalation, whereas 8 patients (14%) had genital involvement, 31 (54.4%) had facial burns and 34 (59.6%) had burns on their hands. In 77.2% (n=44), some type of surgical intervention was required and 89.5% (n=51) underwent the amputation of some body part. Six patients (10.5%) died during the hospital stay due to the severity of their burns.

Psychiatric history. Nineteen of the patients (33.5%) had a psychiatric history: there were six cases of anxiety or mood disorder, six substance-related disorders, three personality disorders, three cases of schizophrenia and/or other psychotic disorders, two of attention deficit hyperactivity disorder and one of mental retardation. In all, 26.4% (n=15) had required psychotherapy and/or antipsychotic drug treatment. The burns were produced accidentally in 46 cases (83.9%) and intentionally in seven (12.5%). Among those that were intentional, six involved self-inflicted injury and one was produced by another individual. In 15.8% of the cases, it was possible to establish a causal relationship between the psychiatric history and the burn injury (in the seven intentional burns and in two of the accidental ones).

Incidence of posttraumatic stress disorder and/or adjustment disorder (within the first six months of the incident). Of the 57 patients included in the analysis, six (10.5%) died during the hospital stay due to the severity of their burns and seven (12.3%) were lost during follow-up. Of the remaining 44 patients, 23 (52.3%) developed AD within six months of their inclusion in the study and eight (19%) fulfilled the criteria for PTSD. Eight (18%) fulfilled the criteria for both AD and PTSD, and only 21 subjects (47.7%) exhibited neither AD nor PTSD after six months of study.

Conclusions

The prevalence a psychiatric history was 33.5%, a finding that is compatible with that of other epidemiological studies (35%)[3] and much higher than that estimated by the National Institute of Mental Health of the United States for the general population (15.4%). This indicates that we are dealing with a population with a high burden of mental disorders.

In 15.8% of the cases, it was possible to establish a causal relationship between the psychiatric history and the burn injury, a finding that is compatible with the data reported by Wisely et al.[3] This incidence indicates the enormous weight of the presence of a mental disorder as a risk factor for being burned. Nevertheless, the percentage of suicide attempts (10%) is notably higher than that observed by Wolf (3%),[15] a fact that may be explained by the severity of the burns in our sample, as it is taken from a national referral center, since burns in suicide attempts tend to be more severe than those provoked under other circumstances.[3]

The incidences of AD (52.3%) and PTSD (18%) are also compatible with those estimated by other authors, who report incidences of AD of between 13% and 66.7% and of PTSD ranging from 7.7% to 45%,[6-14] findings that indicate the high probability of developing psychiatric disorders in a population that is, in itself, already vulnerable after having suffered a burn injury. In fact, 61.4% of the patients had a psychiatric disorder prior to the incident or developed it afterwards.

It is necessary to carry out, in the near future, epidemiological studies with larger sample sizes that enable the study of the potential predictors of the development of AD and PTSD in order to be able to identify the populations at greatest risk.

In light of the data obtained, it appears to be fundamental to promote screening for psychological symptoms of all

the patients who are admitted to the hospital with burn injuries. Moreover, it is necessary to introduce programs for early psychotherapeutic support and measures of pharmacological support designed for each patient, and to incorporate personnel specialized in psychotherapy and antipsychotic drug treatment in burn units.

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