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The emergency room is the interface between community and health care institution. Whether through outreach or in-hospital service, the psychiatrist in the general hospital must have specialized skill and knowledge to attend the increased numbers of mentally ill, substance abusers, homeless individuals, and those with greater acuity and comorbidity than previously known. This Special Section will address those overlapping aspects of psychiatric, medicine, neurology, psychopharmacology, and psychology of essential interest to the psychiatrist who provides emergency consultation and treatment to the general hospital population.

Suicidality and panic in emergency department patients with unexplained chest pain

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Abstract

Objectives: The present study aims to document the problem of suicidality in emergency department (ED) patients with unexplained chest pain and to assess the strength and independence of the relationship between panic and suicidal ideation (SI) in this population.
Method: This cross-sectional study included 572 ED patients with unexplained chest pain. SI, history of suicide attempts, history of SI and the presence of thoughts about how to commit suicide were assessed. Logistic regression analyses were used to quantify the relationship between current SI and panic.
Results: Approximately 15% [95% confidence interval (CI), 12%–18%] of patients reported current SI, and 33% (95% CI, 29%–37%) reported history of SI. Nearly 19% (95% CI, 16%–22%) of patients had thought about a method to commit suicide, and 33% (95% CI, 29%–37%) had a history of a suicide attempt. Panic attacks were diagnosed in 42% (95% CI, 38%–46%) of patients, and 45% (95% CI, 39%–51%) of those had panic disorder. Panic increased the crude likelihood of current SI [odds ratio (OR)=2.53, 1.4–4.5]. This increase in SI risk remained significant after controlling for confounding factors (OR=1.70, 95% CI, 1.0–2.9).
Conclusions: Suicidality and SI were common and often severe in our sample of ED patients with unexplained chest pain.

Keywords: Chest pain; Panic; Panic disorder; Suicide; Suicidal ideation; Emergency medicine

1. Introduction

Chest pain is one of the most common primary complaints encountered by emergency physicians [1], and approximately one half of cases remain unexplained at the time of discharge from the emergency department (ED) [2–4]. However, up to 80% of unexplained chest pain cases evolve into a chronic pain problem [5–11].

Unexplained chest pain often results in significant impairment. Up to 70% of patients with unexplained chest pain report that chest pain episodes limit their ability to work or to engage in daily activities, such as walking, physical exercise and household chores [10,12,13]. Accordingly, these patients report significantly reduced quality-of-life scores for up to 9 years after the initial medical evaluation

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[14,15]. Unexplained chest pain is also associated with repeated ED consultations and frequent use of health care services, such as primary care, cardiology, gastroenterology and neurology subspecialties [12,16–18]. Unsurprisingly, elevated psychological distress and psychiatric morbidity are highly prevalent in this population [4,19,20]. Approximately 15% of patients who present to the ED with unexplained chest pain report suicidal ideation (SI) at the time of the consultation [20]. This prevalence rate is more than twice that of ED patients as a whole (6%) [21]. The elevated rate of SI in ED patients with unexplained chest pain highlights the importance of exploring the frequency and severity of this problem in this population. A better understanding of this phenomenon could help prevent suicidal behavior, as SI is a risk factor for suicide attempts [22]. Moreover, approximately 40% of patients who commit suicide were seen in the ED in the year prior to their attempt [23]. Additional data on suicidality, such as thoughts about how to commit suicide or history of SI and suicide attempts, are essential to understanding the actual risk of suicide attempts within this population.

Psychopathology is an independent risk factor for SI [24,25], and the elevated prevalence of SI in patients with unexplained chest pain may be attributable to the high psychiatric morbidity in this population [4,19,20]. Panic attacks, with or without panic disorder, are the most common psychiatric condition observed in patients who consult an ED physician for unexplained chest pain, with prevalence rates of 20% to 44% [19,20,26,27]. For simplicity, the term "panic" is used throughout this article to refer to panic attacks and panic disorder.

Panic has been found to be an independent risk factor for SI among patients in primary care settings [28–30]. The same relationship has been observed in ED patients with chest pain, but the data refer exclusively to individuals with panic disorder [31], a diagnosis responsible for less than 50% of the cases of panic among patients with unexplained chest pain [19,20,26]. Thus, the association between SI and panic attacks, the most frequently observed psychological syndrome in ED patients with unexplained chest pain [20], remains unknown.

The present study aims to do the following: (a) document the problem of suicidality in patients presenting to the ED with unexplained chest pain and (b) assess the strength and independence of the relationship between panic and SI in this population. We hypothesized that panic is associated with an elevated risk of SI and that this association is independent of sociodemographic characteristics, medical problems and other psychiatric conditions.

2. Materials and methods

2.1. Setting

Participants were recruited on weekdays between 8 a.m. and 4 p.m. at the EDs of two university-affiliated hospital centers from March 2005 to May 2008. The ethics committees of both institutions approved the protocol. The detailed protocol of the original study is available elsewhere [20].

2.2. Sample

Patients were eligible to participate if they were at least 18 years old, spoke English or French and had normal serial electrocardiograms and cardiac enzymes (troponin T<0.06). Exclusion criteria were as follows: objective medical cause explaining the chest pain (e.g., cause identifiable by radiography; objective signs of ischemia, arrhythmia and/or myocardial necrosis), unstable medical condition, psychotic state, ongoing intoxication or presence of a cognitive disorder. Consequently, patients with known cardiac disease were included only if the current episode of chest pain met the aforementioned inclusion criteria. A standardized clinical interview was administered to eligible and consenting patients during their stay in the ED. Patients were subsequently asked to complete a battery of self-report questionnaires during their stay in the ED. All interviews were audio recorded, and a random sample of 25% of the interviews was assessed for interrater agreement on panic diagnoses. Trained personnel extracted information about medical conditions from the patients' files, and a random sample of 8% of the files was evaluated for interrater agreement. All abstractors were blind to the study's objectives and to the patients' diagnoses of panic or SI.

2.3. Measures

2.3.1. Interviews

Sociodemographic data, including date of birth, gender, employment status and civil status, were documented during a brief structured interview. Either the Anxiety Disorders Interview Schedule for DSM-IV (ADIS-IV) [32] or its French–Canadian version [33] was used to diagnose the following psychiatric conditions: panic attacks in the past month, panic disorder with or without agoraphobia, social phobia, specific phobia, obsessive–compulsive disorder, posttraumatic stress disorder, generalized anxiety disorder, major depression, dysthymia, bipolar disorder, somatoform disorders, substance abuse and substance dependence. Panic attacks were considered to be present when patients had experienced at least one clinical panic attack in the last month, and panic disorder was diagnosed using strict DSM-IV criteria [34]; 93% of panic disorder patients had experienced at least one clinical panic attack in the month preceding the ED consultation. Trained research assistants conducted these interviews under the supervision of licensed clinical psychologists.

2.3.2. Self-report measures

We used item 9 of the Beck Depression Inventory, second edition (English or French–Canadian version), to evaluate current SI [35,36]. Patients responded to this question by selecting one of the following statements: 0=I don't have