



Somatoform and Affective Disorders in Chronic Pain: Temporary Sequence and Associated Factors

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Abstract

Pain is a multidimensional experience encompassing both sensory and emotional elements. There are many factors involved in the etiopathogenesis, evolution and maintenance of chronic pain, with psychopathological factors being important. According to the results of this study, it is frequent to suffer psychopathology prior to the painful process, which is a risk factor for chronic pain, and in time, it becomes the center of life of the patients, changing the diagnosis to Somatoform Disorder.

Keywords

Somatoform disorders, Affective disorders, Chronic pain, Temporal sequences, Comorbidity

Introduction

Pain is a multidimensional experience encompassing both sensory and emotional elements. The emotional component, or how bothersome the pain, significantly impacts the quality of life of the sufferer and has been argued to be the greatest metric for quality of life. Chronic pain may easily be considered an epidemic in our society affecting 25% of Americans [1], one in five Europeans (19%) and one in six Spaniards (17%) [2]. Psychopathological factors are considered on the many important factors involved in the etiopathogenesis and maintenance of chronic pain [3-6].

It is easy to understand that a person suffering from chronic pain may end up developing a psychopathological disorder. Typically, society assumes that pain results in an anxious-depressive secondary or reactive state to suffer pain for years. However, psychopathology plays a key role not only in chronic pain, but also in the etiology of acute pain, particularly in its transition to chronic problems. From the consultation of psychiatry we have observed that patients with chronic pain already presented psychopathology prior to the presentation of pain. This has led us to think that there may be psychopathological factors that predispose to chronic pain. It is important to take into account the time factor of development and the relevance that these risk factors have for evolution and intervention [3]. At the same time, psychiatric co-

morbidity is important in the secondary prevention of chronic pain, with severe consequences on the prognosis, outcomes and utilization of health services [7].

Through this work we describe some of the psychopathological characteristics of a population with chronic pain. We want to show the temporal sequence between the onset of pain and the onset of psychopathology, as well as some of the factors associated with its occurrence.

Material and Method

Is there a relationship between pain and presenting with anxiety and depression disorders? Is there an individual susceptibility to presenting with chronic pain throughout life? Are there predisposing psychopathological factors for chronic pain? Some of these questions have already been answered in the scientific literature, but with this work we want to focus on the temporal sequence to analyze whether pain begins before the comorbid psychopathology or vice versa. In addition, we

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want to analyze the type of associated psychopathology and the evolution of the same throughout the biography of the patients.

We performed a retrospective study on a sample of 80 patients (54 women, 26 men; mean age: 55 yrs). The data were collected in psychiatry consultation from November 2015 to March 2017. The patients included in the sample have special characteristics that are being monitored within our clinic's Pain Unit. All patients had been evaluated previously in the anesthesia or rheumatology clinic and were grouped according to following diagnoses: 1. Fibromyalgia, 2. Chronic non-oncologic pain with associated psychopathological comorbidity, 3. Chronic non-oncologic pain with suspected opiate dependence, or 4. Chronic non-oncologic pain and do not respond adequately to their usual treatment.

Statistical analysis was carried out using the MED-CALC program (https://www.medcalc.org/calc/odds_ratio.php) and sociodemographic variables such as age, sex, place in fraternity (position he occupies among his siblings, being the older, younger or middle brother/s), environmental factors (such as exposure to stress or trauma), and psychiatric diagnosis and history prior to the assessment within the Pain Unit. Descriptive data and associated risk factors have been studied (Odds Ratio (OR), $p < 0.05$).

Results

Sex

Women 67.5% and men 32.5%. Throughout a chronic non-oncologic pain process, the female sex is a risk factor for Substance Abuse (OR 1.93 (CI 95% 1.02-3.65)), Somatoform Disorder (OR 1.66 (CI 95% 0.87-3.15)) and Fibromyalgia (OR 1.74 (CI 95% 0.92-3.31)).

Average age

55 years.

Personal psychiatric antecedents

Psychiatric antecedents prior to the evaluation by Psychiatry were the subject of this study 61.25% of the sample, with a distribution of: Affective disorder or anxiety disorder: 45%; Personality disorder: 7.5% and Substance use disorder: 7.5%. Presenting a psychiatric history is a risk factor for Substance Abuse Disorder (OR 1.42 (CI 95% 0.76-2.65)), Somatoform Disorder (OR 1.22 (CI 95% 0.65-2.28)) and Fibromyalgia (OR 1.29 (CI 95% 0.68-2.40)).

Primary psychiatric diagnosis

No diagnosis of the psychotic spectrum associated with pain has been found. Of the patients taking opi-

oids, 66.66% presented criteria for the diagnosis of Substance Abuse (52.5% of the sample). However, the main diagnosis found was Somatoform Disorder (56.25% of the sample), of which, more than half of these patients (51.1%) had comorbidities with Substance Abuse Disorder. 53.75% presented dysfunctional personality traits, but 8.75% of patients were diagnosed with personality disorder, of which almost half (42.86%) had an opiate dependence pattern.

Fibromyalgia

55% of the sample had been diagnosed with Fibromyalgia. Of these patients, 66.1% also had a diagnosis of Somatoform Disorder.

Number and type of specialties consulted in relation to pain

Patients with a diagnosis of somatoform disorder are more specialists in relation to their discomfort, painful/psychopathological (4 specialties consulted on average) than those with other diagnoses (between 2 and 3 specialties).

To have suffered a trauma throughout its evolution

70% of the cases refer to having experienced "trauma" throughout their biography. But not all consider "trauma" or stressful event, but also include in their biographical rupture events suffered by other members of their environment, so that the order of relevancy they give to the trauma and according to who suffered it would be: own (55.36%); Children (23.21%); Parents (10.71%); Companionship (7.14%); Other relatives (3.57%). It is a risk factor for developing Substance Abuse (OR 2.08 (CI 95% 1.09-3.95)), Somatoform Disorder (OR 1.97 (CI 95% 1.04-3.76)) and Fibromyalgia (OR 1.88 (CI 95% 0.99-3.58)).

Temporal sequence of events

Onset of trauma, psychiatric clinic and pain. 76.25% of the patients in the sample reported having or having an affective alteration at that time (complying with and not meeting criteria for affective disorder), mainly hypothyria, which related to pain. However, interviewing patients was frequently found to have a decreased mood prior to the onset of pain (67.21% of patients had had affective symptoms before pain appeared in their lives: Emergence of a stressful/traumatic event attributed to the biographical rupture: 37 years, appearance of the affective clinic at age 41, and onset of pain 1 year later.

Place in the fraternity

It has been observed in this study that patients were frequently related to their family relationship and that, when asked, 80% were not older siblings within their

family. Not being the older sibling in the family is a risk factor for opioids being prescribed in a pain process (OR 1.14 (CI 95% 0.49-2.91)), this can lead to a substance use disorder (OR 3.71 (CI 95% 1.53-9.03)) and somatoform disorder (OR 3.20 (CI 95% 1.31-7.79)), as well as suffering from fibromyalgia (OR 3.36 (CI 95% 1.38-8.18)).

Discussion

It is common in psychiatry to find pain as a symptom associated with affective disorders. Likewise, anxiety and depression can be consequences of adaptation/mal adaptation to pain; (ie, even rapid withdrawal from a noxious stimuli) for acute threats. (In brief, this drive is no longer adaptive) [8]. It is difficult to determine which symptom occurs earlier in time and what we should take into account as predictors of future risk.

There are studies on pediatric population (childhood and adolescence) in which these types of temporal associations are studied. In them, chronic pain has been found to be associated with a variety of psychological issues, including anxiety, depression, anger, conduct problems, and mental health issues in general [9]. Anxiety has been frequently studied as a risk factor for numerous chronic pain disorders. While the issue of causality is often cited as a problem with this area of research, a study demonstrated strong temporal association, with anxiety disorders preceding reports of chronic back/neck pain, headaches, and "any chronic pain" [10]. However, another study of predictive factors for recurrent abdominal pain in children specifically did not find such temporal relationships [11]. Cross-sectional studies do appear to show a somewhat consistent relationship between anxiety and chronic pain. Anxiety has been significantly associated with general musculoskeletal pain for girls [12], migraine with aura [13], and recurrent abdominal pain [14,15]. A recent study supported this finding in a general chronic pain sample and demonstrated that youth with abdominal pain reported higher overall anxiety as well as more panic-somatic symptoms relative to other pain groups [16].

Depression is strongly related to anxiety [17] and is worth examination in relation to chronic pain in its own right. Depression appears to be an important factor in pediatric chronic pain disorders. As with anxiety, the question of whether we can infer infertility between pain and pain is often cited. However, the temporal relationship was found between preceding depression diagnoses and headaches or "any chronic pain" [10].

At least one scientific review has demonstrated a strong association between chronic pain and psychopathology [18]. Examples of this association are seen in studies on psychopathology and chronic low back pain that deter-

mined that anxiety, depressed mood, and somatization are all factors involved in the transition to chronic low back pain [4]. In another example in a population with chronic low back pain, 77% met criteria for at least one psychiatric disorder throughout life, and 59% for their condition at that time. In the same study population, 51% had a personality disorder. The most prevalent diagnoses were: depressive disorder, substance abuse disorder and anxiety disorder, with prevalence rates being significantly higher than the basic rate of the general population. Of these patients with a positive history for mental disorder, 54% of those with depression, 94% of substance abusers and 95% of those with anxiety had presented with these psychopathological pictures before the onset of pain [5]. In another study with patients with chronic musculoskeletal pain, the overall prevalence of psychiatric disorders was significantly higher (67%) than the general population [19]. According to Carroll (2004), depression is a strong and independent predictor for the onset of an episode of severe and/or disabling cervical and lumbar pain (OR 3.97, 95% CI 1.81-8.72) [20]. In another sample with chronic disabling disease, at the time of the study, 65% were diagnosed as having a psychiatric disorder compared to 15% of the general population, with 56% being depressive disorder, 14% substance abuse and 11% anxiety disorder. In turn, 70% had personality disorder [21]. The authors did not consider somatoform disorder due to persistent pain, which they considered "almost universal in this population". Another study conducted in Primary Care in patients with chronic pain evaluated the prevalence and strength of association with depressive disorder. Patients with depressive disorder had 66% of chronic pain and 41% of patients with chronic pain had depressive disorder. Of this second group, the severity of somatic symptoms and the prevalence of anxiety disorder were higher than in other respondents. In turn, the prevalence of alcohol dependence was greater in the group of patients with chronic pain and depression than in those who did not have depressive disorder [22]. Koen (2007) studied the prevalence of comorbidity of back or neck pain with mental disorders in 17 countries. It was shown that mental disorders were more common among people with back/neck pain with a consistent pattern in both developed and developing countries. The strength of association was stronger for mood disorders (OR: 2.3) and anxiety (OR: 2.2) than for substance use disorders (OR: 1.6) [23]. Psychiatric diagnostic interviews were conducted in 31% of the patients with psychiatric diagnosis, with the most common diagnoses being somatoform disorders (18%) and anxiety d (12%) [7].

There is at least one reported theoretical model of etiopathogenesis in the literature, in which pre-existing factors of the individual (before the onset of chronic

pain) are then activated or exacerbated by stress, eventually resulting in diagnosable psychopathology [18].

According to the results of this study, anxiety and depression, as well as the presence of dysfunctional personality traits prior to a complete pain study, are predisposing factors to chronic non-oncologic pain. This, in turn, predisposes opioids to be prescribed during treatment, leading to possible substance abuse disorder. In addition, since the results show that it is more frequent to suffer psychopathology prior to the painful process, this makes us think that the pain is itself a symptom of their psychiatric discomfort, but that in time it becomes the center of life of the patients, changing the diagnosis to somatoform disorder.

Future research should be focused on assessing basic psychopathology as an influence on the response to prescribed treatments for pain.

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