

Muscular Complaints and Headache are Common Painful Physical Symptoms in Patients With Depression

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Abstract

Background: Although common, painful physical symptoms are not listed as symptoms of depression in the leading (psychiatric) classifications ICD-10 and DSM-IV. **Method:** In this observational study, general practitioners and internists consecutively documented outpatients requiring an antidepressant. At baseline, after 6 weeks, 4 and 6 months of treatment with fluoxetine were recorded: Clinical global impression (CGI) using the CGI scale; depressed mood, anxiety, suicidality, lack of energy, sleep disturbances, restlessness, cardiovascular symptoms, gastrointestinal symptoms, diffuse physical symptoms, muscular complaints, and headache using a four-point Likert scale. For comparisons between males/females the Chi-Square-test was performed. This report is limited to pre-treatment baseline findings. **Results:** 927 of 1008 patients (92.0%) assigned to treatment with fluoxetine had the primary diagnosis of a depressive disorder. At baseline, in 94.3% of the 927 depressed patients (100%) severity of illness was at least moderate. 91.3% had at least one painful physical symptom (muscular complaints, headache, or both), in 58.9%, at least one symptom was moderate to severe. 65.8% suffered from both muscular complaints and headache simultaneously, in 27.0% both symptoms were at least moderately severe. Women showed painful physical symptoms significantly more often ($p < 0.01$). **Conclusion:** The findings indicate that painful physical symptoms are common in depressed patients (German J Psychiatry 2005; 9: 101-106).

Keywords: painful physical symptoms; pain; depressive disorder; depression

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Introduction

Physical symptoms such as sleep disturbances are widely recognized as symptoms which commonly occur in depressed patients (Casper et al., 1985; Schatzberg, 2004). This is reflected by the fact that they are listed as symptoms of depression in both of the leading classification systems for psychiatric disorders: the International Classification of Diseases (ICD-10) (World Health Organization, 1992). and the Diagnostic and Statistical Man-

ual of Mental Disorders (DSM-IV-TR) (American Psychiatric Association, 2000).

In contrast, there is no definite agreement on whether *painful* physical symptoms such as muscular pain and headache may constitute intrinsic symptoms of depression [Gerber et al., 1992; von Korff et al., 1993; Bair et al., 2003; Barkow et al., 2004]. As a result, pain is not listed as a core symptom of depression in either classification system.

This article discusses the significance of painful physical symptoms in depressive disorders based on baseline findings from an observational study.

Table 1: Patient and illness Characteristics of Patients With Depressive Disorder at Baseline

Sex		
male		264 (28.5 %)
female		663 (71.5 %)
Age (years)		
Mean (SD)		52 (14)
Range		19-90
Profession		
Employed		473 (51.0 %)
Unemployed		35 (3.8 %)
Housewife		191 (20.6 %)
Retired person		182 (19.6 %)
Pupil/student/in training		5 (0.5 %)
Unknown		41 (4.4 %)
Onset of illness (years)		
Mean (SD)		47 (14)
Range		6-88
Type of current episode		
First episode		333 (35.9 %)
Remitting-relapsing		359 (38.7 %)
Chronic stable		95 (10.3 %)
Chronic deteriorating		127 (13.7 %)
Unknown		13 (1.4 %)

Methods

This prospective, naturalistic, non-interventional, multicenter, drug utilization observation study (Linden et al., 1997) consisted in a 6-month treatment phase with fluoxetine. 461 general practitioners and internists were asked to document data on consecutive male or female outpatients, who, in their judgement, required antidepressant treatment. Data were recorded at baseline, after 6 weeks, 4 months, and 6 months. Physicians were required to collect data during the patient

Table 2. Headache and muscular complaints in patients with a depressive disorder at baseline. P-values refer to the comparison between male and female patients

	All (927) N (%)	Male (264) N (%)	Female (663) N (%)	p
Headache				
Symptom present	724 (78.1)	191 (72.3)	533 (80.4)	<0.01
Symptom moderate to severe	380 (41.0)	76 (28.8)	304 (45.9)	<0.0001
Muscular complaints				
Symptom present	732 (79.0)	189 (71.6)	543 (81.9)	<0.001
Symptom moderate to severe	416 (44.9)	86 (32.6)	330 (49.8)	<0.0001

visit. Fluoxetine was started following baseline documentation. Objectives were to ascertain indications and symptoms in which fluoxetine is used, to identify treatment strategies, and to collect safety and efficacy data. There were no formal inclusion or exclusion criteria defined and concomitant medication was not restricted. The study protocol was approved by an ethical review board.

At baseline, the diagnosis and the following items were documented: sex, age, profession, onset of illness, and type of episode (e. g. first episode of depression). At baseline and at the documentation visits, the clinical global impression was determined as assessed by the 7-point Clinical Global Impression-(CGI)-Severity scale (not ill [1], borderline ill [2], mildly ill [3], moderately ill [4], markedly ill [5], severely ill [6], extremely ill [7]). Furthermore, frequency and intensity of the following parameters during the week before baseline

were captured using a 4-point Likert scale (1-4 points: non-existent [1], mild [2], moderate [3], severe [4]): depressed mood, anxiety, suicidality, lack of energy, sleep disturbances, restlessness, cardiovascular symptoms, gastrointestinal symptoms, diffuse physical symptoms, muscular complaints (shoulder, neck, back) and headache. The symptom types "muscular complaints" and "headache" were considered to exclusively capture painful physical symptoms. Three other types (cardiovascular, gastrointestinal and diffuse physical symptoms) captured both painful and non-painful physical symptoms.

A total of 1126 patients were documented by 426 physicians. 118 patients were excluded from evaluation for the following reasons: Retrospective documentation (77 patients), pre-treatment with fluoxetine at baseline for longer than one week (41 patients) and documentation captured after the database was closed (3 patients). In 927 of the remaining 1008 patients (92.0 %), the primary diagnosis was depressive disorder. The majority of patients with a non-depressive primary diagnosis suffered from anxiety (67 patients).

All of the following analyses only refer to those 927 patients (100 %) with the primary diagnosis of a depressive disorder. All data were rated using ordinal scales (CGI-Severity scale, Likert scale). Therefore, the median and quartiles (25 % quartile; 75 % quartile) are reported. Additionally, the mean is indicated. For comparisons between males and females the Chi-Square test was performed.

Results

Baseline demographics and severity of illness at baseline

Baseline demographic characteristics are summarized in Table 1. The severity of illness at baseline was rated by the treating physicians as not present (1), borderline (2), or mild (3) in 4.9 %, moderate (4) in 24.8 %, marked (5) in 57.7 %, severe (6) in 11.3 % and extreme (7) in 0.5 % of patients as

determined by the CGI-Severity scale (not reported in 0.8 % of patients). The median (quartiles) CGI-Severity scale score was 5 (4; 5), the mean (\pm standard deviation) 4.8 ± 0.8 .

Clinical symptoms at baseline

Each of the assessed emotional symptoms (depressed mood, anxiety) and non-painful physical symptoms (lack of energy, restlessness, sleep disturbances) occurred in > 90 % of patients. In > 70 % of patients, these were moderate to severe, based on the four-point Likert scale. Symptom types including both painful and non-painful physical symptoms (diffuse physical, gastrointestinal, cardiovascular symptoms) and symptom types including painful physical symptoms only (muscular complaints, headache) were also represented frequently (59.8 to 87.4 % of patients). However, frequency and intensity of these symptom types were lower (moderate to severe: 27.7 to 53.6 %) compared to emotional and non-painful physical symptoms (Figure 1).

91.3 % of patients had at least one painful physical symptom (muscular complaints, headache, or both), in 58.9 % of pa-

tients, at least one symptom was moderate to severe (Figure 2). 65.8 % of patients suffered from both muscular com-

plaints and headache at the same time, in 27.0 % both symptoms were at least of moderate intensity. Women suffered significantly more often from painful physical symptoms (Table 2).

Discussion

In our sample, 91.3 % of depressed patients suffered from at least one painful physical symptom (Figure 2). These findings are consistent with those from studies, showing painful symptoms in 40 to 92 % of depressed patients (Lindsay and Wyckoff, 1981; von Knorring et al., 1983; Magni et al., 1985; Kroenke et al., 1994; Morris et al., 1999; Corruble and Guelfi, 2000; Barkow et al., 2001; Ohayon and Schatzberg, 2003; Munoz et al., 2005). In women, painful physical symptoms were significantly more frequent than in men (Table 2), corroborating previous results (Ohayon and Schatzberg, 2003).

Figure 1: Clinical symptoms of 927 patients with a depressive disorder at baseline. Results of the 4-point Likert scale (non existent: 1, mild: 2, moderate: 3, severe: 4) are presented using box plots: Grey boxes represent the range from the lower quartile (25th percentile) to the upper quartile (75th percentile). The solid line in the center of the box represents the median. In several cases, the median coincides with the upper or lower quartile. The dotted line in the box represents the mean. The whiskers represent the range from the 10th to the 90th percentile, single dots represent outliers

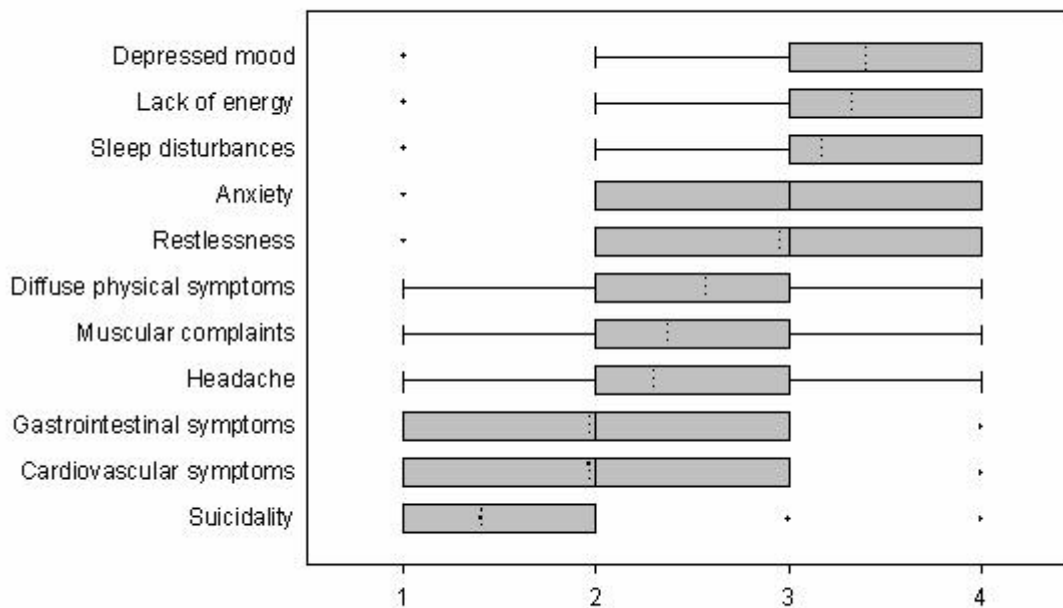
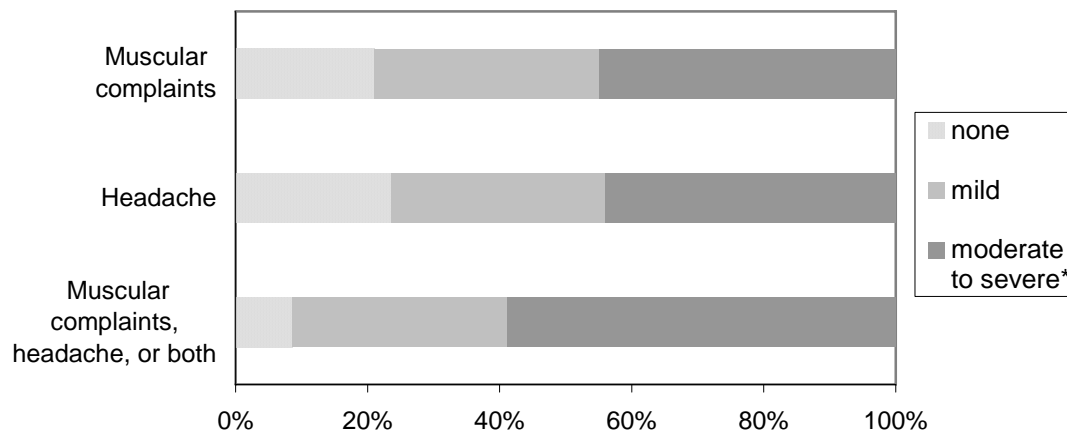


Figure 2: Prevalence of painful physical symptoms in 927 patients with a depressive disorder at baseline

*at least one symptom moderate to severe



Nevertheless, such findings have not resulted in an inclusion of those symptoms as intrinsic symptoms of depression in the leading psychiatric classification systems ICD-10 (World Health Organization, 1992) and DSM-IV, although pain is mentioned as an “associated feature” of depression in DSM-IV (American Psychiatric Association, 2000).

Possible reasons for this might be related to the following issues, even if they are not necessarily conclusive:

- It may be difficult to accurately diagnose or classify pain as a distinct entity (i. e. disorder) or a symptom. There are several pain disorders such as somatoform pain disorder or fibromyalgia (Pridmore and Rosa, 2001) and numerous diseases in which pain is only one of several symptoms (von Korff and Simon, 1996; Bair et al., 2003). In many cases, diagnosis and classification may depend on the physician’s individual opinion whether pain is a symptom of a complex disorder (e. g. headache in depression) or a distinct comorbid diagnosis (e. g. tension type headache). In line with this perspective, there would be no need to define pain as a depressive symptom because of the option of making several independent diagnoses.
- Pain and depression are closely and complexly inter-related (Patten, 2001; Ohayon and Schatzberg, 2003; von Korff and Simon, 1996). Basically, there are two possibilities for such interaction: Pain may result in depression and depression may result in pain (Ohayon and Schatzberg, 2003; von Korff and Simon, 1996). Both hypotheses are supported by a number of studies showing an onset of pain prior to the onset of depression (Breslau and Davis, 1992; Hotopf et al., 1998; Barkow et al., 2001; Patten, 2001) and vice versa (von Korff et al., 1993; Magni et al., 1994; Hotopf et al., 1998; Currie and Wang, 2005). There is, however, no obvious reason why both mechanisms should not occur simultaneously, especially considering that identical neurotransmitters, norepinephrine, serotonin, substance P, and corticotropin releasing factor (CRF), play crucial roles in

both depression and pain (Campbell et al., 2003, Delgado, 2004, Sengupta and Kumar, 2005). A lack of a single consistent cause-effect relationship may have led to a reluctance to attribute the pain directly to depression.

In the light of our findings, we would argue that painful physical symptoms in this sample should be rather described as intrinsic symptoms of depression than as distinct comorbid disorders. Reasons include the fact that

- painful physical symptoms were very common among depressed patients
- however, compared to emotional and non-painful physical symptoms of depression, painful physical symptoms were less common and less severe. This would make it seem difficult to justify a distinct comorbid diagnosis (e.g. somatoform pain disorder).

This study has several limitations. First, not all painful physical symptoms could be assigned to this category (e. g. some symptom types such as gastrointestinal disturbances included both painful and non-painful symptoms). However, two symptom types (headache and muscular complaints) could entirely be assigned to the category painful physical symptoms. Secondly, detailed information about frequency during the course of the episode, chronicity, and onset of painful physical symptoms compared to emotional depressive symptoms was not collected. Therefore, a causal relationship between pain and depression cannot be definitely derived from our findings. Despite these limitations, this naturalistic study provides valuable real life data and describes those depressive patients commonly encountered in practices of general practitioners and internists. The findings suggest that painful physical symptoms are common in depressed patients and may be considered intrinsic symptoms of depression (Simon and von Korff, 2000). Further studies to elicit a causal relationship are warranted.

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