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Cephalalgiaphobia: a possible specific phobia of illness

Received: 18 November 2006
Accepted in revised form: 15 January 2007
Published online: 19 February 2007

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Abstract Psychiatric comorbidity, mainly anxiety and depression, are common in chronic migraine (CM). Phobias are reported by half of CM patients. Phobic avoidance associated with fear of headache or migraine attack has never been adequately described. We describe 12 migraine patients with particular phobic-avoidant behaviours related to their headache attacks, which we classified as a specific illness phobia, coined as cephalalgiaphobia. All patients were women, mean age 42, and all had a migraine diagnosis (11 CM, all overused acute medications). Patients had either a phobia of a headache attack during a pain-free state or a phobia of pain worsening during mild headache episodes. Patients overused acute medication as phobic avoidance. It is a significant problem, associated with distress and impairment, interfering with medical care.

Cephalalgiaphobia is a possible specific phobia of illness, possibly linked to progression of migraine to CM and to acute medication overuse headache.

Keywords Phobia • Migraine • Anxiety disorders • Illness phobia • Comorbidity

Introduction

Psychiatric comorbidity is common among chronic migraine (CM) patients [1]. Anxiety and mood disorders are the most important conditions in CM, affecting up to 85% of patients

[2–4], causing significant decrease in their quality of life [5]. Anxiety disorders were found in 76% of CM patients, generalised anxiety disorder (GAD) in 52%, and phobias in 54% [6, 7]. Social phobia is three-fold more common in migraineurs than in controls [8]. Phobias and migraines were linked genetically via the DRD2 dopamine receptor allele [9].

Specific phobia of illness appears in the DSM-IV [10] under the heading of specific phobias as a new subtype of specific phobia, separate from hypochondriasis. Illness phobia is a major problem, common in the general population, associated with distress and impairment, interfering with medical care [11]. Patients fear contracting a condition seen as life-threatening, such as cancer, heart disease or AIDS. Patients experiencing aversive symptoms, such as shortness of breath in lung diseases or chest pain in a coronary artery disorder may fear their reoccurrence [12]. A migraine attack can also be a very aversive experience, and the migraineur easily fears another severe attack. Nevertheless, phobia of a headache or migraine attack has never been adequately described.

Methods

We report 12 patients followed at a tertiary headache clinic in a hospital in São Paulo, Brazil. It has come to our attention that for individuals presenting a particular avoidance behaviour related to their headache attacks, the idea that a specific phobia of headache was an important issue in their clinical picture and management. We therefore started to pay special attention to those patients after June 2005. The estimated prevalence rate of cephalalgiphobia in the CM population at our headache center in 60%. Although the number of patients was small, we found this pattern in the majority of CM patients. Patients were diagnosed according to SCID-IV [10] and ICHD-II [13]. All met diagnostic criteria for a specific phobia based on DSM-IV (Table 1).

Results

All patients were women, mean age 42.6 ± 9.8 years (range 26–59). All patients had a migraine diagnosis; 11

had CM. All patients overused acute medications. Patients also fit Silberstein and Lipton's 1996 transformed migraine diagnostic criteria [14, 15]. Patients presented either anticipatory anxiety, fearing a headache attack during a pain-free period, or fearing that pain would worsen during a period of mild headache. As avoidance behaviour, patients overused acute medications despite being aware that it was the fear of having another migraine attack or a headache exacerbation that made them take more analgesics than necessary. The sedation-seeking behaviour, "soporophilia", described by Saper et al. [16] was not identified. The fear of a headache attack or exacerbation was marked and persistent. It was considered excessive but not always unreasonable, because previous severe headaches experienced with intense suffering was the specific object of anticipation. Exposure to the phobic stimulus could be the baseline headache, or might not occur. A headache-free state with intense anxious anticipation or distress could elicit the phobic behaviour and the overuse of acute medications, interfering with patients' regular activities. As is common in mental disorders, most patients also met criteria for psychiatric conditions other than cephalalgiphobia (Table 2).

Discussion

Phobias and migraine are related in several ways. Genetic, epidemiologic and clinical data confirm this association [6–9]. Cephalalgiphobia can be possibly classified as an anxiety disorder, under the heading of specific phobias, different from other specific phobias. It may also be subdivided into other subtypes such as phobia of existing

Table 1 Diagnostic criteria for specific phobia according to the DSM-IV

- A. Marked and persistent fear that is excessive or unreasonable, cued by the presence or anticipation of a specific object or situation (e.g., flying, heights, animals, receiving an injection, seeing blood).
- B. Exposure to the phobic stimulus almost invariably provokes an immediate anxiety response, which may take the form of a situationally bound or situationally predisposed panic attack. Note: In children, the anxiety may be expressed by crying, tantrums, freezing or clinging.
- C. The person recognises that the fear is excessive or unreasonable. Note: In children, this feature may be absent.
- D. The phobic situation(s) is avoided or else is endured with intense anxiety or distress.
- E. The avoidance, anxious anticipation or distress in the feared situation(s) interferes significantly with the person's normal routine, occupational (or academic) functioning, or social activities or relationships, or there is marked distress about having the phobia.
- F. In individuals under age 18 years, the duration is at least 6 months.
- G. The anxiety, panic attacks or phobic avoidance associated with the specific object or situation are not better accounted for by another mental disorder, such as obsessive-compulsive disorder (e.g., fear of dirt in someone with an obsession about contamination), post-traumatic stress disorder (e.g., avoidance of stimuli associated with a severe stressor), separation anxiety disorder (e.g., avoidance of school), social phobia (e.g., avoidance of social situations because of fear of embarrassment), panic disorder with agoraphobia, or agoraphobia without history of panic disorder.

Table 2 Age, gender, headache diagnosis, acute medication overuse and psychiatric diagnosis of cephalalgia phobia patients

Patient	Gender	Age	Headache diagnosis	Acute medication overuse (n. per week)	Other psychiatric diagnosis
1	F	42	CM	Erg (14), analgesic (7)	Panic disorder, MDD, GAD
2	F	32	MAM	–	GAD, agora
3	F	38	CM	Sumatriptan (7)	MDD, phobia
4	F	53	CM	Analgesic (7), nsaid (7)	Panic MDD, GAD
5	F	26	CM	Nsaid (4)	Phobia, GAD, BDII
6	F	52	CM	Analgesic (14), Erg (14)	BDII, GAD
7	F	59	CM	Nsaid (7), sumatriptan (7), opioid (7)	MDD, GAD
8	F	49	CM	Analgesic (21)	MDD, phobia
9	F	41	CM	Naratriptan (7), analgesic (14)	MDD, phobia, GAD
10	F	40	CM	Analgesic (21)	MDD, GAD, anorexia, phobia
11	F	48	CM	Rizatriptan (5)	MDD, GAD, phobia
12	F	39	CM	Analgesic (14), naratriptan (7)	BDII, GAD

CM, chronic migraine; MAM, menstrually associated migraine; erg, ergotamine; nsaid, nonsteroidal antiinflammatory; MDD, major depressive disorder; BDII, bipolar disorder type II; GAD, generalised anxiety disorder

medical illness. A possible new subtype of specific phobia, cephalalgia phobia is widening the range of psychiatric comorbidity in headache disorders.

Fears are divided into four consistent factors: fear of bodily harm (death, injury, illness, blood and surgical procedures), animal fears, interpersonal fears and agoraphobic fears. Cephalalgia phobia, although classified as a phobia of illness under specific phobia, other type, can be considered a bodily-harm type of phobia. Marks classified abnormal illness fears among the phobias of internal stimuli. He noted that they are intense fears of specific conditions, such as cancer or heart disease, and distinguished them from hypochondriasis, in which diffuse fear is focused on multiple symptoms rather than a particular illness [17]. Another illness phobia frequently observed in headache care is the phobia of having a brain tumour or aneurysm. Our patients did not present hypochondriasis; although MMPI scores regarding this aspect are elevated in CM [18], we did not use these in our sample. The instrument may not be as accurate for psychiatric diagnosis as the DSM-IV.

Fears of illness are common in the general population. In Burlington, Vermont, some degree of illness fear was found in 18.2% of the population [19]. Phobic disorders are comorbid with other psychiatric conditions, particularly anxiety disorders [20]. There is also an increasing risk of the patient developing depression and substance abuse disorder [21]. Cephalalgia phobia might be inserted into the same context of psychiatric comorbidity previously found in CM.

Fear of having an attack or of worsening of a baseline headache may be the underlying mechanism behind the excessive acute medication intake often seen in CM and chronic daily headache. Cephalalgia phobia may decrease the threshold for initiating the analgesic consumption behaviour, leading to acute medication overuse. MOH pathophysiology may be linked to this mechanism. Saper et al. [16] have identified the “biobehavioural” aspect of MOH. Anticipatory anxiety, obsessional drug-taking behaviours and drug dependence were considered important.

Bouton et al. [22] suggested a model of fear conditioning for panic disorder that we believe fits our hypothesis on the development of cephalalgia phobia. The exposure to headache, an internal unconditioned aversive stimuli, would cause a conditioning of anxiety to exteroceptive and interoceptive cues.

Health care behaviour and cost may be influenced. Fears and phobias interfere with medical care [23–25]. The cost for a migraine patient with anxiety was US\$ 12 642 vs. US\$5179 in those without it [26]. Some people delay seeking medical attention, potentially affecting their outcome [27].

Cephalalgia phobia may open therapeutic windows in the treatment of CM patients; therapy with standard medications or treatments for phobias could be needed in this context. Tricyclic antidepressants, SSRIs, benzodiazepines, GABAergic compounds and psychotherapy may be indicated.

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