

The Cold Man. A clinical case of the cold sensation

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Abstract: The lack of correlation between available knowledge and the current approach to Somatoform Disorders is highlighted. Methods: the study, via the analysis of an unusual clinical case of an anomalous sensation of cold, examines various hypotheses on the physiopathology of somatization. Conclusions: a conceptualization would focus attention on the level of patients' preoccupation with their symptoms, on the anomalies of the variations of perceptions and on patients' hyperarousal. It could lead to a more harmonious position in psychiatry, between anthropologically-based understanding and interpretation of psychophysical information.

Keywords: Cold sensation, pain, psychopathology.

INTRODUCTION

The relation between psychopathology and the various somatoform disorders poses a series of questions. Somatization have saw often as accompaniment of psychological or psychiatric problems (Nijenhuis ER, van Dyck R, der Kuile MM, Mourits MJ, Spinhoven P, van der Hart O. 2003; Rickels K, Rynn M. 2001). In particular, the relation between chronic somatoform pain and conversion disorders appears controversial. One of these questions was raised by M. Birket Smith & EL.Mortensen (2002), they underlined how the relation between chronic somatoform pain and conversion disorders is more closely linked to the subjectivity of examiners than to a real overlap.

Every debate regarding subjectivity involves emotional factors in relation to both the examiner and the examinee. As far as the patient is concerned, the emotional dimension and the sensorial one can be measured using continuous ratings. Hammad MA, Barsky AJ, Regestein QR. (2001) observed how changes in feeling cold are distinguishable from the perceived unpleasantness of the selfsame stimulus.

Focus on the matter of the case

The psychopathological factor presented in this case is linked to an anomalous sensation of cold. The case enables a number of questions regarding somatization to be illustrated. The symptoms complained of do not correspond to a specific type under the nosology currently in use (APA) (1994). However, it is clear why such a specific category is lacking; given the rarity of symptoms presented in our case and the statistical nature of the DSM. The emotional and sensorial dimensions of pain can be measured using continuous ratings. Recently, the emotional and sensorial dimensions arising from non-painful cold stimuli have also been looked at. JLK Harrison & KD Davis (1999) recorded the perception threshold of cold in different skin types together with the variation of the intensity and the

sensation of cold as well as evaluating separately the intensity of the unpleasantness of that same stimulus.

The fluctuations of these various measures in experiments where the cooling speed ranged from 0.5°C/s to 1.5°C/s underscores the physiological distinction between the assessment of intensity and the emotional evaluation of the stimulus. In our view these data suggest how emotional experiences deposited in biological systems are shaped by experiences of cutaneous contact. The characteristics of our case also provide an opportunity to delineate physiopathological concerns. Thus, we believe that the observations regarding this case could be of interest in a general sense, especially the multidimensional interaction between the body's heat regulation system and the nociceptive system (Davis Karen D., Pope Geoffrey E. 1999). Moreover, the specific alteration of a sensory-perceptive experience indicates an altered processing of stimuli. Other aspects of issues regarding somatization will be discussed in the case-report.

Case report

Mr. G, aged 52, was referred for consultation from a rheumatology ward with somatic complaints suspected as being of psychic origin. The admittance to a medical ward was due to the continuous and serious complaints by the patient of an anomalous feeling of cold. However, the suspected rheumatic disease was not confirmed by clinical and laboratory test results. G. started to suffer this feeling of cold excessively at around 25 years of age. At that time he was a teacher in a laboratory for electronic measurements. In recent years, despite the mild climate of his city of residence, G's disorder has continued. G. reached the point of wrapping himself up in layers of wool, even though he was aware of the anomalous nature of his feeling of cold. The patient had difficulty in washing himself for the same reason. The feeling of cold was especially pronounced at home despite the fact that he lived reasonably comfortably in a heated house. He also had a car for personal transport, nevertheless he felt excessively cold.

Besides the sensation of cold, the patient reported other physical complaints; namely nausea and abdominal colic. These occurred during his work as a teacher and at times prevented him from proceeding with lessons. However, in relation to these symptoms, the patient was able to recognize their possible psychological significance. Indeed, Mr. G. recalled their occurrence at times of greater objective difficulty; when he was with particularly undisciplined classes. These conditions of distress were accompanied by the fear that the head of the school could reprimand him for being unable to maintain class discipline.

G , right from an early age, suffered the relationship with his harsh and aggressive father, who was careless of the emotional needs of the family.

In his later childhood and adolescence G's mother seemed unable to provide him with a valid counterpart to the paternal position. She tended to be weak and self-sacrificing. On G.'s part sibling rivalry was an adverse experience, especially his relation with his older brother, who in the words of the patient "had the same character as my father".

At 18 years old, although his results at school were good, G. was not sure what to do next. He went to study science at university then, rather than continuing, he started to teach laboratory measurement techniques in a secondary school. During this time he began to feel the cold excessively. He returned to his home region, and took up theological studies in an ecclesiastical school. His aim was to lead a life as a priest to avoid "to harsh an impact with the world". However G. did not become a priest because he realized that he would never manage to preach sermons to a congregation. G. concluded his course of theology and then did a course in journalism, working as a radio reporter for about eighteen months. G. was then employed as secretary to an Ecclesiastical Authority for nearly a year. During that year G. suffered such severe physical complaints, above all abdominal, that he left the job being convinced that he was "unsuited to dealing with the public". About eight years ago, G. married a woman more than ten years his junior. His wife regards him negatively; this is manifest in her constant rebukes and hostile attitude and the fact that she clearly holds him in low esteem.

Discussion

The psychopathological examination of G. highlighted the following phenomena: a) an abnormal sensation of cold that cannot be objectified, i.e. dysesthesia; b) depressed mood; c) thoughts focused on physical complaints; d) decreased willpower. This picture gave rise to the diagnosis of Undifferentiated Somatoform Disorder, not only due to the presence of physical complaints but also the exclusion of any known medical condition. In support of the diagnosis was: the significant difficulty in social functioning, the duration of the disorder, that no other mental disorder provided a better explanation for the disturbance, and the absence of simulation. Accordingly, treatment with an antidepressant (Mirtazapine 45 mg.) was resorted to. Following treatment the patient showed improved mood level and a reduction in physical symptoms. Nonetheless, in stressful situations and internal conflict the sensation of cold remained, albeit diminished in intensity.

The case presented shows some unusual characteristics, which we feel illustrate a series of general issues regarding somatization. The various factors raised for consideration are the drawing a distinction between different Somatoform Disorders (Somatization Disorder, Conversion Disorder, Somatoform Pain Disorder and Undifferentiated Somatoform Disorder), which are all strongly linked to inability to adapt. Environmental factors may not only be the cause but also the means by which these disorders are assessed. In place of an objective and clinical viewpoint (bound to the individual) a systems criteria is employed. In spite of this, the data obtained is considered inherent to the individual. The varying cultural significance of somatic symptoms. The expression of suffering through body language is heavily influenced by the culture to which one belongs (Buchwarld D, Pearlman T, Kith P, Schmaling K. 1994, Evengard B., Schacterle R.S. & Komaroff A.L. 1999). Specific somatoform expressions occur at different points of time in history and in different ethnic groups (Ehlers L. 1999). Furthermore, differences in the ability to verbally represent feelings and emotions may be found among different populations (Argyle Michael 1992). Similarly, a somatic expression may have a different communicative value in different cultures, thus the same somatic symptom may, at the same time, be either bereft of or laden with symbolic meaning (Ford CV. 1997). In the second case, the presence of somatoform

symptoms in an individual must be more carefully considered than somatoform expressions in an individual of a different extraction belonging to the former category. In excluding conversion disorder we followed R. Gould, BL. Milner Goldberg MA, Benson DF. (1986), who stressed the need to focus on the semantic value of symptoms, especially ones related to pain. In this light, the observer's psychological school of thought becomes relevant. In the past, disease classification considered somatoform symptoms to represent emotional distress. The definition "masked depression" was utilized. This term has fallen into disuse due to its vague inclusion of somatoform disorders into the category of affective disorders (Bshor T. 2002).

The difficulty of making a differential diagnosis between a Somatoform pain Disorder and a Conversion Disorder, implies that there is a great deal of overlap between patients in the two groups (Birket-Smith M, Mortensen EL. 2002). It is interesting to observe how cognitive distortions regarding the appreciation of one's own body and health occur in subjects with somatoform disorders (Harrison Joel L.K, Davis Karen D. 1999). Therefore, in subjects with Somatoform Disorders there is: 1.an initial perception of transitory somatic disorders; 2.subsequent overestimation of the frequency of these; 3.specific cognitive alterations with specific reference to the re-evocation of pain; 4.the co-presence of depression, which reinforces the memory of negative descriptors regarding the self. In this perspective, the observation of an amplified perception of pain as an abnormal adjustment of a normal response in somatoform disorders is significant (Bayer TL, Coverdale JH, Chiang E, Bangs M. 1998, Leventhal EA, Hansell S, Diefenbach M, Leventhal H, Glass DC. 1996).

A dysfunction, with lowering of the pain perception threshold, is found after experimentally administering unpleasant somatic stimuli; not just in somatoform disorders, (Renhard D. Beise, Carstens E., Kohlloffel Lothar U.E.1998). Greater sensitivity to noxious stimuli also occurs in real-life situations of anxiety in which the subject's life is at stake (Feldner MT, Hekmat H. 2001). Similarly, the dysfunction of the perception of cold, both as an modified perception of the environmental temperature as well as the increase in its emotional value, as seen in our case, appears to be a modulation of sensations and of normal life experiences. It is difficult to distinguish pain of psychic origin from the so-called neurogenic one (in

which there would be a neurophysiological alteration of algic perception) (Birket-Smith M, Mortensen EL 2002). However, differences in nociceptive thresholds have been found between normal subjects and subjects with somatoform disorders (Ford CV. 1997, Nakao M, Barsky AJ, Kumano H, Kuboki T. 2002, Hammad MA, Barsky AJ, Regestein QR. 2001).

Conclusion

The case examined illustrates the difficulty in differentiating between the various disorders classified as somatoform. The symptoms reported may be understood from both a psychophysiological and an interpersonal point of view. A classification closer to clinical medicine could be based more on the patient's level of preoccupation with their symptoms, psychophysiological hyperarousal (Rief W, Auer C. 2001) and altered modulation of perceptions (Nakao M, Barsky AJ, Kumano H, Kuboki T. 2002). Besides these factors, it is important to consider the alteration of sensory-perceptive processes in order to reach a balanced position between anthropologically-based understanding and interpretation of psychophysical data. Neuronal circuits, as the means by which the self is represented, are shaped by experiences. Both increased synaptic activity, and the phenomena of neuronal plasticity are involved in a complex conception of somatic symptoms (Rief W., Hiller W., 1999).

In our case we are thus able to combine neurobiological, social and psychological reflections and empirical observations regarding the chronic feeling of cold reported by the patient. On a different level, the importance of pain and cold to one's state of mind is not necessarily linked to nociception or somatoform symptoms. Tradition is full of tales of human endeavors that are described and recounted as being painful. In the same way, cold is present in life with a whole series of connotations. Descriptions of pain and of cold are intertwined and derive from mental images and somatic experiences.

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