Psychosomatic medicine: Focus on chronic pain

According to the literature, as many as 31% of people in the USA (Johannes et al., 2010) and 19% (Breivik et al., 2006) in Europe will have experienced pain in the last 6 months.

Chronic pain is a condition involving both body and mind. Among several other factors (Cedraschi et al, 2005), the presence of psychopathology increases the perception of pain and the disability associated with it. The prevalence of depression in chronic pain subjects ranges from 30 to 60%, and increases not only the attendant disability and suffering, but also the social cost (Bair et al., 2008; Arnow et al., 2006). As Kroenke and colleagues have pointed out, pain and depression are the most common symptoms in primary care (Kroenke et al., 2009), and, according to a survey from Spain (Calvó-Perxas et al., 2016), there is a greater prevalence among women (34.5% vs. 20.3% in males).

Anxiety is another psychopathological condition affecting chronic pain. For instance, in a recently described chronic low back pain sample, anxiety disorders co-occurred in 35.8% of patients, with generalized anxiety disorders (GAD) being the most common form (12.8%) (Kayhan et al., 2016). The presence of mild to moderate anxiety is known to influence the perception and behaviour of chronic pain through the involvement of the entorhinal cortex of the hippocampal formation (Ploghaus et al., 2001), whereas one factor underlying comorbid pain and depression seems to be chronic neuroinflammatory processes inducing sickness responses (Walker et al., 2013).

Other studies have shown strong associations between chronic pain and panic disorders (PD), agoraphobia (Ciaramella & Poli, 2015), and post-traumatic stress disorders (PTSD) (McWilliams et al., 2003). Panic disorder comorbidity is particularly insidious, since, due to neurovegetative dysfunction, it can increase the side effects of drugs such as ziconotide, an intrathecal treatment for neuropathic pain (Poli & Ciaramella, 2011). Agoraphobia, on the other hand, when added to lifetime depression considerably increases disability. These two conditions often co-occur with a dysfunctional coping style in subjects with chronic low back pain (CLBP) (Ciaramella & Poli, 2015).

Somatisation symptoms are also common in chronic pain subjects (Fishbain et al., 2015), and recent research has shown an increased prevalence of somatoform disorders in chronic low back pain. Although this results in higher levels of occupational disability, increasing the social burden (Mohan et al., 2014), the systematization of somatoform disorders in patients with chronic pain remains poor, with the exception, perhaps, of fibromyalgia – the most investigated syndrome to date.

Whereas recent advances in neurosciences have underlined the importance of brain structures related to motivation and emotions, developmental or epigenetic influences are also to be considered. Moreover, present integrative models include personal history and vulnerabilities, as well as cognitive factors and interpersonal dimensions, as essential modulators of pain perception and disability (Allaz and Cedraschi, 2015).

Indeed, psychopharmacological treatment is commonly used to successfully manage pain. A large number of publications report that tricyclic antidepressant medications are efficacious

in chronic pain (Dharmshaktu et al., 2012), and in neuropathic pain in the rat model (Burke et al., 2015) and human clinical studies (Kalita et al., 2014), especially when there is associated depression. Strong evidence from several sources shows that SNRIs too are capable of providing relief from chronic pain, whether it is directly associated with depression or not (Briley, 2004). The SSRI antidepressants are also effective means of controlling headache and fibromyalgia, but thus far few rigorous studies in chronic pain subjects have been conducted to elucidate the correlation between analgesia and improvement in depression (Ciaramella et al., 2000; Banzi et al., 2015).
Besides psychopharmacological drugs as adjuvants to treat pain, several psychotherapeutic and mind-body techniques are also being explored as pain management strategies. In particular the role of pain acceptance is increasingly emphasized in cognitive and mindfulness-based therapies. However, as yet there is insufficient evidence for their efficacy in this regard. The usefulness of mindfulness, biofeedback, movement therapies and relaxation-based approaches in fibromyalgic females has recently been investigated via electronic searches of the Cochrane Central Register of Controlled Trials (Theadom et al., 2015), but the quality of evidence available has been judged low or very low, and we are therefore unable to state the effectiveness of these techniques with any confidence.

This brief background on the psychosomatic aspects of chronic pain is the starting point for further examination of specific features of the condition. This Chronic Pain SIG, in collaboration with the EAPM, has the aim of furthering knowledge on the psychological and psychopathological components of chronic pain by:

a) Writing and/or supporting monographs and books in this field
b) Organising symposiums to coincide with EAPM congresses
c) Disseminating among EAPM members the evidence relative to the impact of psychological, psychopathological and neurobiological components on the perception and disability of pain
d) Stimulating the new generations of researchers to study chronic pain, becoming a bridge for knowledge exchange between specialised pain centres
e) Encouraging pharmaceutical companies to invest more in research into the impact of psychopathology in pain control
f) Forging a link between EAPM and pain societies.

The Chronic Pain SIG would welcome new members from among researchers and practitioners interested in expanding our knowledge-base on the psychosomatic aspects of chronic pain. Antonella Ciaramella (chair), Anne-Francoise Allaz, Amnon Mosek support and are members of the Chronic Pain SIG.

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