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Generalised musculoskeletal pain syndromes

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The study of the descriptive epidemiology of chronic widespread pain (CWP) in several countries is of interest, as the occurrence of this condition varies among different populations. However, reports of pain prevalence are not consensual: it is clear that chronic musculoskeletal pain is frequent all over the world, varying from 4.2% to 13.3%. The reasons for the prevalence differences in CWP might include genetic and/or environmental factors.

Multifactorial aetiopathogenesis of CWP and fibromyalgia syndrome (FMS) certainly includes genetic susceptibility and environmental influences. The risk factors for the occurrence and maintenance of CWP/FMS include female gender, increasing age, family history of chronic pain, several causes of distress, obesity and poorest mental and/or physical status. On the other hand, risk factors that negatively influence the outcome of CWP/FMS are: high levels of psychological distress, presence of somatisation, presence of fatigue, poor sleep, higher number of painful sites and pain intensity, poorest mental status and functional capacity, presence of co-morbid conditions and highest number of primary-care consultations. Mild alcohol consumption and individualised social support seem to have a protective effect on the outcome of CWP/FMS.

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Descriptive epidemiology

Introduction

Chronic widespread pain (CWP) and fibromyalgia syndrome (FMS), from a rheumatological perspective, are viewed as generalised musculoskeletal pain syndromes. From the broader epidemiological perspective of chronic pain, there is accumulating evidence that multiple chronic musculoskeletal pain sites, irrespective of formal definitions of 'widespreadedness', are an important measure of the population burden of pain and pain-related disability [1]. This represents a shift towards thinking of multiple-site chronic pain as a continuum of experience, often established early in adult life, and away from the categorical view of widespread pain. To paraphrase Croft [2], the question is "How much of it have you got?" rather than "Have you got it?". A large Norwegian cohort study tracked the number of musculoskeletal pain sites in participants over a 14-year period from 1990 to 2004 and found that the number of sites reported was stable over time (68.8% of those who reported five or more sites at baseline reported the same number of sites 14 years later) [3]. Furthermore, this was seen consistently across age groups, suggesting that the persistence of relatively stable multi-site musculoskeletal pain is established early in adult life. From the perspective of measuring and reducing the global burden of musculoskeletal pain, the number of pain sites, a continuous measure with strong prognostic capacity for pain-related disability, may prove to be suitable as a marker of individual and population risk analogous to blood pressure [4].

Intriguingly, recent developments in the conceptualisation of FMS show a similar line of thought, with a shift away from a category-based definition towards a continuum-based approach [5]. Twenty years after the American College of Rheumatology (ACR) first published fibromyalgia classification criteria, new ACR preliminary diagnostic criteria have been developed [5].

The fundamental change in the new criteria is that they allow fibromyalgia to be characterised as part of a dynamic continuum of chronic widespread musculoskeletal pain that takes into account changes in the 'widespreadedness' of pain in a quantitative manner as well as taking into account changes in concomitant symptoms (e.g., fatigue and loss of restorative sleep) and their level of severity. With the removal of the sometimes controversial requirement for tender points as a diagnostic criterion [6], there is now the potential for wider use of the new criteria in surveys and in future rounds of estimating the global burden of disease.

With a better understanding of the important role of central pain processing in CWP and in FMS, the gaps between the 'fibromyalgia literature' and the 'chronic pain literature' are rapidly narrowing. However, this article is based on what has gone before, and so necessarily focusses on studies of CWP and FMS that have used the 1990 ACR criteria.

Case definition

For many common musculoskeletal conditions, there are significant variations in case definitions that have been used in epidemiological studies that estimate population burden. This is as true for commonly occurring conditions, such as low back pain, as it is for generalised musculoskeletal pain conditions.

Incidence versus prevalence: selecting the most appropriate measure

In epidemiological studies of disease occurrence, two commonly used measures are incidence (first-ever occurrence or onset of a condition) and prevalence (presence of a condition), which may be measured at one point of time, or over a defined period of time. Generalised musculoskeletal pain conditions are characterised by a gradual onset, are often established by early adult life and follow a complex episodic course with remittance and recurrence of pain symptoms. It is therefore debatable whether measures of incidence do, in fact, capture initial onset of the condition or the onset of a new episode of an already prevalent condition. Therefore, prevalence is the preferred measure in the context of generalised musculoskeletal pain conditions.