Plenary Session on Fibromyalgia

Introduction

Harold Merskey DM FRCP(Lond) FRCPC FRCPsych

Fibromyalgia is a remarkably common disorder, particularly in women whom it affects some eight to nine times more frequently than men. It commonly begins between the ages of 35 and 50 years and is the third most frequent diagnosis in rheumatological practice after osteoarthritis and rheumatoid arthritis. Prevalence estimates in the general population range from 0.66% to 11.2%. It seems to be particularly common in the Scandinavian countries.

Clear criteria for the diagnosis of fibromyalgia have been established by the American College of Rheumatology and adopted also by the International Association for the Study of Pain. To satisfy the criteria of these bodies, pain should be present in some part of the body on the left, in some part on the right and both above the waist and below the waist. In addition the axial skeleton at some place from the cervical spine to the lower back must be involved. With patients who have pain in a distribution that satisfies these conditions and who also are tender at 11 of 18 defined tender points, the diagnosis can be made provided the tenderness is sufficiently great (with an approximate palpation force of less than 4 kg).

The classification of fibromyalgia by these criteria does not establish whether it is an organic disorder. It is known that there is a high frequency of psychological disturbance in fibromyalgia but that too does not establish that the illness is of psychological origin. The definition of a syndrome has to be kept separate from the determination of the etiology of the syndrome. Moreover a syndrome may be delineated by means of criteria that reflect a cut-off point on a continuum. Fibromyalgia is a good example of this approach to the definition of syndromes.

A plenary session of the annual meeting of the Canadian Pain Society, held in Ottawa on May 27, 1995, was devoted to the subject of fibromyalgia. The proceedings of this symposium are presented in this issue.

The pathophysiological disturbances in fibromyalgia and other physical changes are reviewed by Dr Henning Værøy. It is known that a number of organic conditions can provoke fibromyalgia. These include viral infections and trauma leading to widespread pain. A particular (although not wholly specific) sleep disturbance has been described in fibromyalgia. Værøy and his colleagues subsequently demonstrated that substance P is greatly elevated (almost three times normal) in the cerebrospinal fluid of patients suffering from fibromyalgia compared with normals. This finding has recently been confirmed with very similar figures by I Jon Russell and colleagues. The phenomenon is not known to be present in the serum of patients with fibromyalgia. Other physiological findings in patients with fibromyalgia have included reduced platelet serotonin and reduced somatomedin C. Værøy reviews and discusses these changes.

The management strategies for fibromyalgia that are widely accepted include the use, in modest doses, of some medication, eg, amitriptyline or cyclobenzaprine, and the general avoidance of many other measures employing medication. There are controlled trials of other substances that have been thought to be helpful but there is no medication that provides a radical cure. Exercise programs are widely favoured. Dr Simon Carette has undertaken important controlled work in the treatment of fibromyalgia and reviews the current situation in light of his own and other findings.

Dr Michael Boissevain reviews new cognitive data on the psychological aspects of fibromyalgia and the psychological findings in fibromyalgia.

Some of the unresolved issues in fibromyalgia include the limitations of present knowledge with respect to epidemiology, well-defined cases versus poorly defined cases, and the differences between patients who meet the criteria and those who do not quite fulfil the criteria. Some patients have all the pain and few or none of the tender points. Other individuals have a qualifying number of tender points but no pain. Other unresolved matters include almost everything about the intricate pathophysiology that may underlie this disorder, the question whether it will in time turn out to be several disorders and the nature of the mechanism by which different factors, such as musculoskeletal trauma and febrile infections, rheumatoid arthritis and hypothyroidism, may all be involved.

The unresolved issues have a further bearing upon medicolegal matters, which are much argued about. We need to know when fibromyalgia patients can still work, when they cannot reasonably be expected to work and how to determine this. Few solutions are available but some firm ground can be delineated.

Correspondence: Dr H Merskey, London Psychiatric Hospital, 850 Highbury Avenue, London, Ontario N6A 4H1. Telephone 519-455-5110, fax 519-455-5090

Classification and diagnosis of fibromyalgia

Harold Merskey DM FRCP(Lond) FRCPC FRCPsych

H Merskey.
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Fibromyalgia was recently classified when a sleep disorder was described with diffuse musculoskeletal pain. The standard modern definition was reached on the basis of thorough analysis of pain patterns and characteristic tender points. The principles of classification are reviewed with respect to this diagnosis.

Key Words: *Disease classification, Fibromyalgia, Myofascial pain*

Classification et diagnostic de la fibromyalgie

RÉSUMÉ : La fibromyalgie a été récemment classifiée lorsqu'on a décrit un trouble du sommeil accompagné de douleurs musculosquelettiques diffuses. Les critères retenus pour la nouvelle définition découlent d'une analyse approfondie de la physionomie de la douleur et des caractéristiques des « points douloureux ». Les principes de cette classification sont passés en revue d'après ce diagnostic.

Classification often manages to seem dull and to be controversial at the same time. We may feel that it is a labour (not often of love) to prepare a system of classification, but may be greatly aroused at the efforts of somebody else to classify a topic of importance to us in a fashion of which we disapprove. There are a number of occasions when classification can be exciting in a good sense (1). This most often happens when we recognize something new and are very willing to present the information that defines and identifies a new category among the enormous list of medical syndromes and disorders. The description of painful legs and moving toes by Spillane et al (2) and its explanation (3) provide a very satisfying chapter in classification. The recognition of cluster headache (4) and chronic paroxysmal hemicrania (5) are excellent examples of a similar response.

Historically, the sorts of condition we now call fibromyalgia had often been termed psychogenic rheumatism. Suddenly, a new way to appraise and deal with these matters became apparent when Smythe and Moldofsky (6) demonstrated that a rather diffuse pattern of aches, pains and tiredness possessed a special correlate in the sleep electroencephalogram. This gave a strong impetus to the formulation of new criteria for fibrositis (7).

The formulation of new criteria by Smythe and Moldofsky (6) quickly led to additional studies, and the end result was the large multicentre study of the American College of Rheumatology, which established definitive criteria for what is now more often called fibromyalgia (8).

Those criteria are employed in numerous research studies and have been accepted by the International Association for the Study of Pain (9). Thus, they have served one key function of a classification system in medicine: to enable workers in different places to investigate groups of patients who are broadly the same in some established respects and to compare their findings in a variety of matters. This does not mean that we no longer have to think about the classification of fibromyalgia. It does mean, however,

London Psychiatric Hospital, London, Ontario

that a reliable body of comparative data is being established about diffuse musculoskeletal pain under certain conditions.

Numerous items remain for consideration. Classification does not tell us how we should understand the difference between tender points in fibromyalgia locations and trigger points in muscle. Some fibromyalgia tender points occur outside muscle, eg, the tender points at the medial fat pad of the knee. Accordingly, they cannot provide the twitch response that has been described in patients with what is currently called myofascial pain. Myofascial pain and fibromyalgia are both common, but myofascial pain is unquestionably more common. While myofascial 'taut bands' are an uncertain phenomenon, the reliability of fibromyalgia tender points is not in dispute.

Practising clinicians, especially those interested in chronic pain, may frequently encounter patients with widespread musculoskeletal pain who at first have some fairly typical locations of muscle tenderness with radiation of pain on pressure, eg, in the rhomboid muscles after a cervical sprain injury or in several parts of the trapezius, but who do not evince the classical fibromyalgia syndrome until perhaps months or years into their post-traumatic illness. How this may happen is unknown. That it does happen is a matter of fact that classifications must recognize. The usual solution is to give two diagnoses, saying that one, such as cervical sprain with low back sprain, has perhaps given rise to a more generalized phenomenon of fibromyalgia.

Some clinicians may be impatient at the lack of logical reasons or well-defined phenomena that will assist in distinguishing myofascial pain in fibromyalgia. The best response is to try to find suitable methods or to demonstrate that the distinction is fallacious. Meanwhile, we can operate on the basis that some distinctions appear reasonable and practical.

PRINCIPLES OF CLASSIFICATION

This response may still not satisfy the impatience of those who feel that we should be able to classify more precisely and attribute an etiology to the phenomena with which we wish to deal. That is a great ideal and an impossible end-point for many diseases. The principles of a perfect taxonomy cannot be applied throughout medicine. A satisfactory taxonomy must have categories that are mutually exclusive and jointly exhaustive (10). Every item in a classification should fit into one place and no other item should fit into that place. This is the ideal to which we aspire. Some classifications may exist naturally. Classification by phyla according to evolutionary relationships or the periodic table in chemistry almost always accords with the above rules (perhaps with some minor exceptions). We can also establish excellent artificial classifications as well as natural ones. For example, a telephone directory is an extreme example of an artificial classification. The criterion used, the sequence of letters in the alphabet, has virtually no relation to the people, addresses and telephone numbers being classified (11), but is quite satisfactory. If someone has a very common name, shared with a parent and a child of the same sex, all living in the same apartment, there may be some difficulty in the classification; it has to be resolved by adding extra letters at the end such as 1, 2 or 3, but apart from such minor adjustments (minor to everybody except the people involved) the system can work perfectly.

In medicine the basis for classification is very different. In *The International Classification of Disease* (ICD)-10 (12) conditions are classified by causal agent, eg, infectious disease or neoplasms; by systems of the body, eg, gastrointestinal or urinary; or by symptom pattern and type of symptom, as in such psychiatric illnesses as affective illness, schizophrenic illness, anxiety conditions, dementias and personality disorders.

In neurology there are subdivisions by symptom patterns as well, eg, epilepsy or migraine; by heredity such as cerebral degenerations manifest in childhood; by location, eg, spinocerebellar disease; by infectious causes; and by tumours. Conditions may be grouped by time of occurrence, eg, congenital abnormalities. ICD-10 also has codes for Z33 Pregnant state, incidental, which includes Pregnant state NOS, and for Z34 Supervision of normal pregnancy. These codes are found in a section on Factors Influencing Health Status and Contact with Health Services, which is obviously a sensible arrangement. It implies that medical practice has to extend classification not only to 'diseases' but also to technical and social functions of doctors and other health care practitioners.

We need not linger on the particular issues of classification by these different considerations, but should note as well that there is a chapter in the ICD-10 for 'Symptoms signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)'. This chapter excludes items for which more specific diagnoses can be made. It includes among others R00.0 Tachycardia, unspecified, and such items as R06.5 Mouth breathing, snoring, R07.0 Pain in throat and chest and R14 Flatulence.

It is clear that the classification of pain cannot approach the ideal that we find in chemistry and biology, but this is not unique to pain and is true of medical classifications in general. Houston and colleagues (13) pointed out that 'acute nephritis' may be diagnosed on the basis of etiology, pathogenesis, histology or clinical presentation.

Classification in medicine is a pragmatic activity. It does not provide absolute truth. It provides categories with which we can work to identify individuals with similar phenomena, prognoses or origins. We should always try to find the best arrangement of categories that will tend towards defining unique items without giving up comprehensive coverage. In consequence, medical classification is subject to change as knowledge improves. We have to do it but it will never be perfect. It was for this reason a quotation is found at the beginning of the classification of chronic pain syndromes of the International Association for the Study of Pain (9): "You are not obliged to complete the work nor are you free to desist from it". The quotation serves to emphasize that this is a continuing activity always moving towards perfection and never getting there.

Fibromyalgia and myofascial pain require to be better understood. While furthering knowledge about them we can also recognize that the patterns that have so far been described reflect some reliable observations and help us to pursue comparative and etiological studies. At this point, let us say that classification is not always dull and that we should look at the next articles which may give us more exciting insights into the origins of this particular pattern of complaint.

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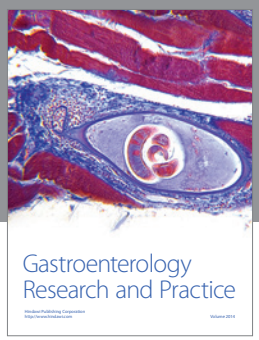

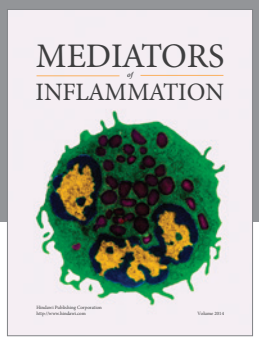

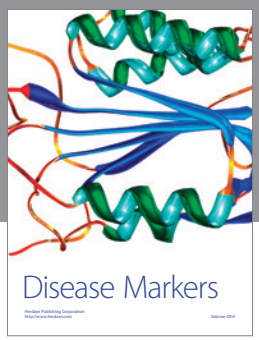

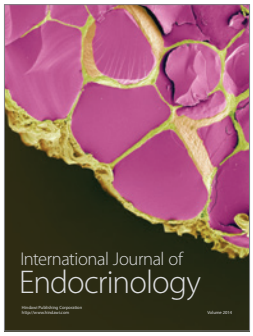

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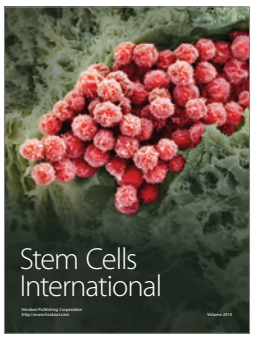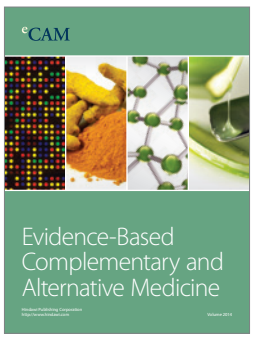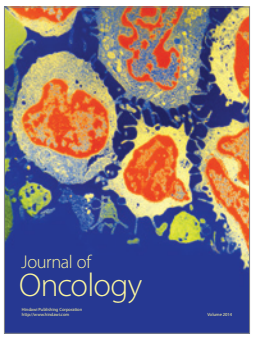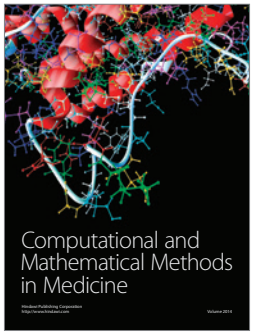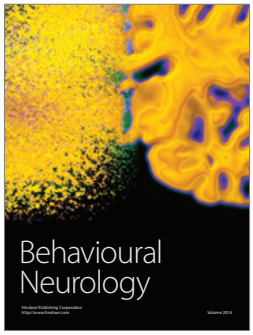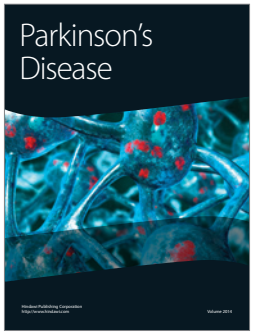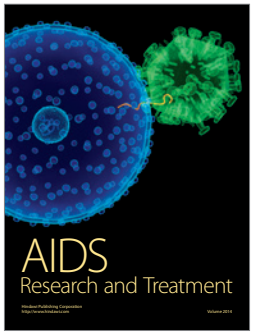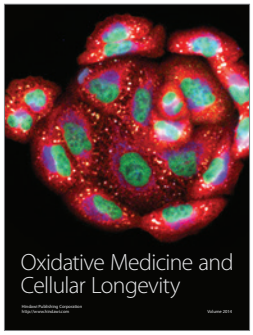
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