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CHRONIC FATIGUE SYNDROME

FOREWORD

EUMASS - UEMASS held its founding convention in Munich in 1973, its first international congress in 1974, and, since then, an international congress every two years, on a rotational basis, among the member countries. The honour of holding the 12th International Congress, marking the 25th Anniversary of the organisation, fell to the United Kingdom. The London Congress was held 5-6 June 1998 and attracted delegates from fourteen European countries. Key speakers came from many European countries as well as the USA.

Chronic fatigue, its causes and effects, is one of the most relevant topics internationally in social insurance. This publication is a compilation of three presentations to the London Congress during a session on chronic fatigue chaired by Dr Mansel Aylward. It has been impossible to include all opinions expressed during the session, but these presentations reflect the main stream of contributions.

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CHRONIC FATIGUE AND ITS SYNDROMES: HISTORICAL PERSPECTIVES

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Fatigue - the Symptom

That fatigue is a commonly encountered experience by mankind is not in doubt. But what is meant by fatigue? First thoughts might be that fatigue is just another word for tiredness. But it goes well beyond that. By its nature it is largely a subjective complaint. There are many contexts in which a healthy person expects to experience fatigue and is able to distinguish this from mere tiredness. When does fatigue become abnormal? When does a complaint of fatigue begin to raise suspicions that it may be some sort of manifestation of a pathological process or disturbed physiology of body and/or mind? When does it become a symptom? There is no simple answer to this. Fatigue becomes a symptom when the person who is experiencing it determines that it is so. However, no matter how we approach its definition, identification and documentation there is abundant evidence that it is more commonly reported by women, and in the lower socio-economic groups, it is a very frequent complaint, it is uncommon before adolescence but thereafter shows little variation with age. Moreover in some people affected by fatigue it is associated with serious disability, no less severe than that encountered in chronic recognisable physical and mental illnesses .

Fatigue in History

Because of the general lack of understanding of the pathogenic mechanisms of disease until 200 years ago. It is not surprising that the medical professions did not focus on fatigue until the middle years of the last century. There may well have been socio-economic factors, in the mid 19th century which contributed to the expression of fatigue as a perplexing problem67, not least the dominance of the Victorian work ethic. But, more important in this context were the advances in medicine, science and technology. Unravelling the mechanisms of disease, finding rational explanations of characteristics of disease based on scientific method, and some treatments that worked, all contributed to a growing confidence that all manifestations of illness were ultimately explicable. How, then could fatigue be explained which did not fit into all of this? Was it a consequence of nervous exhaustion, overwork, the rigours of the Victorian factory system? Was it a manifestation of disease which had yet to be recognised and catalogued. Here we embark upon the history of chronic fatigue not as an inexplicable symptom on its own, but the most prominent feature in a cluster of symptoms to which various diagnoses have been assigned across the years.

Syndromes involving Chronic Fatigue

At its simplest a syndrome is a characteristic cluster of symptoms and signs for which a recognisable cause has yet to be determined. Syndromes involving chronic fatigue are not new. The cardinal observation in all these syndromes has been the disparity between the exhibited functional disability and objective findings on physical examination.

Neurasthenia

Though "nervous exhaustion" was a term that had been widely used in the middle years of the nineteenth century and many medical authorities had claimed its relationship to overwork , the neurologist George Beard10 and a psychiatrist Van Deusen11 separately introduced the term "neurasthenia" in 1869. The occurrence of fatigue as an illness in the absence of discernible disease was central to Beard's concept of neurasthenia, though he went on to postulate that neurasthenia might well be a harbinger of a whole spectrum of physical and mental illnesses. Table 1 lists a number of statements made about neurasthenia following the introduction of the term in 1869. These serve to illustrate the similarities with contemporary accounts of Chronic Fatigue Syndrome (CFS).

First, organic aetiologies were sought for neurasthenia. Possible causes ranged from reflex hyperstimulation and exhaustion of nerve cells, peripheral nerves and muscles , through effects of toxins and impaired cerebral blood flow to adverse social circumstances and11 modern civilization. Interwoven with all of this was the idea that neurasthenia was a masculine form of hysteria . It was melancholia or depression . But none of these offered satisfactory explanations. Advances in neurophysiology could not sustain the stimulation and exhaustion hypotheses . Doubts surfaced that neurasthenia was confined to those exposed to overwork and business pressures. Neurasthenia was also common among the lower social classes. Not unexpectedly, Freud advocated in 1893 that sexual exhaustion was the principal cause of neurasthenia . Slowly a psychological aetiology emerged. Various alternative psychiatric diagnoses emerged to explain all of, or some of the symptoms and features of neurasthenia. Anxiety and Affective Disorder were what underlay the symptoms of chronic fatigue. The similarities to contemporary competing theories of the causation of chronic fatigue syndrome is very strong. So are the observations of Oppenhein in 1908 that methods of investigation were too crude to detect the organic anomalies, or that the psychological features of neurasthenia were more a reaction to the illness than a manifestation of a primary psychiatric disorder.

Neurasthenia became unfashionable as a diagnosis during the 1920's. Even so battles continued between supporters of a psychological basis and those at an organic aetiology. An holistic approach admitting to the possibility of psychological factors and structural/organic mechanisms in an individual patient flourished briefly. Neurasthenia, by 1960 no longer featured in the Diagnostic and Statistical Manual III but has been retained in the International Classification of Diseases (ICD-9 and ICD-10). It still remains a common diagnosis in some parts of continental Europe, and in Japan.

What had been described as a disease of the time engendered little interest around the mid century, Initial excitement among neurologists in diagnosing and explaining it had dwindled dramatically. There was no evidence favouring a neurological basis. Some psychiatrists adhered to a psychological explanation but this failed to win support. Causes based on an assumed greater frequency in the hard pressed professional classes were soon discredited. Advances in medical science would soon demonstrate that the spectrum of symptoms constituting neurasthenia owed its explanation elsewhere!

Fibromyalgia

Beard (1869) had observed that muscle pains and aches were common in neurasthenia. Whereas neurasthenia foreshadows Chronic Fatigue Syndrome (CFS), fibromyalgia's history owes more to its origin in the Victorian concept of "fibrositis". This was characterized by the occurrence of subjective complaints of muscle aches and tenderness. Like neurasthenia, however, the lack of objective findings in fibrositis led to its disappearance from current medicine40. The re-emergence of fibrositis as fibromyalgia in the 1970s, followed within a decade by renewed interest in chronic fatigue syndromes, raised once again the similarities shared by neurasthenia/CFS and fibrositis/fibromyalgia; though distinct features of each suggested that they could be separated.

Fibromyalgia, characterized by enduring muscular pain and stiffness with tender points on muscle palpation, was defined by the American College of Rheumatology in 1990. That however has not prevented strong doubts being raised about the validity of "tender points" as a manifestation of organic muscle pathology and a reliable objective finding. The "tender point" has more recently been viewed as a modification of pain perception threshold and an index of patient's distress rather than a robust objective finding.

There remain however some remarkable similarities between fibromyalgia and CFS: occurrence of fatigue is dominant in both; generalised muscle pain is a shared experience; sleep disorder is common; tender points are also found in CFS; and mental depression is common. Indeed, comparisons of patients with diagnoses of CFS or fibromyalgia have revealed no substantial differences between them. It may well be that labelling of patients with a diagnosis of fibromyalgia or CFS depends more on the speciality and inclinations of the clinician to whom a patient presents than it does to any other factor in presumed aetiology, history or clinical manifestation. Much will undoubtedly depend on a patient's perceptions of aetiology, choice of clinician, and priority given to the symptom which concerns them most. If this is so, this casual approach to diagnosis will frustrate meaningful attempts to improve further our greater understanding of these syndromes and an evidence-based approach to their more effective management. In spite of these confounding issues a consensus is emerging that fibromyalgia is unlikely to be a distinct disorder; that it represents levels in a continuum of muscular symptomatology manifesting as ache, pain and tenderness; and that its occurrence could not be separated from dimensions of illness, pain and mental distress.

Effort Syndrome
(Da Costa's Syndrome, Soldier's Heart, and other synonyms):

Effort syndrome can be traced back to the influential observations and concepts of Da Costa (1869) on "irritable heart" which owed much to his description of symptoms encountered in USA Civil War soldiers. As well as fatigue, breathlessness and chest pain were the predominant manifestations. Here again we encounter a recurrent theme of symptoms manifesting with minor exertion and the lack of any objective evidence of structural disease. Rest was initially advocated, but was frowned upon, among others, by Sir Thomas Lewis (1918) who described "rest in bed ..... to be detrimental rather than beneficial". Exercise and graded activity produced better outcomes. A familiar range of possible causes was advanced: infections, abnormalities in physiological responses to exercise, structural abnormalities in the heart, the stress of emotional shock and trauma. Cohn (1919) argued that effort syndrome due to psychological factors and exposure to stress should be distinguished from those patients whose symptoms lay more in a prolonged recovery phase from infections. The seeds of the contemporary concept of post-traumatic stress disorder were thus planted by Cohn. It could also be argued that he had identified those patients who might now be diagnosed as having CFS. Observations of soldiers traumatized in both World Wars led to the dominance of a primary psychological role in causation, with anxiety the most prominent feature

Chronic Brucellosis

The ubiquity of febrile illnesses, the observations that a neurasthenic-like state sometimes followed them, and the rapid development of bacteriology by the early 20th Century led to an acceptance by many that neurasthenia and/or effort syndromes had an infectious cause. Brucella abortus appeared among the many candidate microorganisms in 1903 when Basset-Smith proposed that symptoms of fatigue, pain and depression were due to the persistence of that agent following acute infection. Despite the championing of chronic brucellosis by Evans (1934) who argued that it should be differentiated from neurasthenia and psychiatric disorders, studies of patients labelled with chronic brucellosis failed to demonstrate persisting infection but recorded significant psychiatric morbidity. It was also recorded that this group of patients demonstrated a reluctance to talk about any psychological problems and had strong beliefs that infection was the cause of their illnesses. This lack of evidence of chronic infection and the prevalence of psychological disorders in those who had been given the supposed diagnosis soon led to the disappearance of chronic brucellosis from orthodox medicine.

Chronic Fatigue Syndrome

Against this historical background what can be said about our current understanding of CFS? A single cause of CFS is unlikely. For the time being CFS must remain classified as 'a syndrome'. Irrespective of the cause of CFS, the syndrome itself does not yet have generally agreed diagnostic criteria. Criteria which have been adopted are for the purposes of defining the condition as tightly as possible for research purposes. There is increasing evidence that differences can be elicited between the majority who have shorter durations of illness, less disability and more favourable prognoses, and the minority of cases who have prolonged histories of illness, an ill-defined onset, and less favourable outcomes. Are we seeing "different sides of CFS, or is CFS itself a mixture of different conditions welded together out of ignorance of aetiology and factors that precipate and/or perpetuate the syndrome in individual people?

Current evidence supports a major distinction being made between the exhibition of symptomatology and the transition, when that takes place, to disability. Viral, and indeed bacterial infections are associated with muscle discomfort and pain, lassitude, malaise and other symptoms. The development of disability, however, seems to be related more to a distortion of perception of the sense of effort, poor coping strategies, cognitive and behavioural abnormalities. Hence the beneficial effects of cognitive behavioural therapy (CBT) which have been demonstrated in well conducted and controlled studies. Psychological, social and cultural factors undoubtedly play important roles, as do the attitudes of the medical profession, family and friends of the affected person.

Wessely, Hotopf and Sharpe (1998) draw attention in their studies to the apparent decline in the excessive level of major affective disorder reported in initial studies of patients with a chronic fatigue syndrome occurring in selected hospital samples. They offer some explanations for this finding: possibly, earlier reference in the course of the disorder, less reluctance to contemplate antidepressant therapy by doctors and patients alike, and a greater awareness of the need to screen for mood disorder. In any case the evidence does not support the contention that CFS is merely the somatic presentation of affective disorder.

An altered perception of effort is not confined to people with CFS. Patients with Fibromyalgia or Irritable Bowel Syndrome or Da Costa's Syndrome can similarly complain that they experience increased effort in undertaking physical and mental tasks. Yet the literature reviewed here does not support any findings of disturbed neuromuscular function or enhanced metabolic demands which underlie the complaint of increased effort. The mechanisms which account for the effort required by people with chronic fatigue syndromes to execute physical and mental tasks remain unclear. Also, this effort is frequently described as "painful" in people with chronic fatigue syndromes. A decrease in brain serotonin activity has been postulated for the pain, fatigue and sleep disturbance found in patients with fibromylagia. Abnormalities in central serotonergic systems have been implicated in a wide spectrum of pain syndromes, and there is a long history of disturbed L-tryptophan metabolism (the precursor of Serotonin) in mood disorders. On balance,

however, the evidence suggests that though depression may be associated with reduced serotonin activity, in CFS there is some evidence to suggest that serotonin mediated responses might be increased. Despite these observations that serotonin function may be abnormal in both depression and CFS, albeit in different directions, Demitrack has cogently argued that CFS may well be a manifestation of chronic exhaustion and the end point of a series of evolving behavioural and somatic events rather than a distinct disease entity.

One cannot dismiss the similarities which exist between CFS, fibromyalgia, other chronic fatigue syndromes and chronic pain disorders. In all of these there are elements of increased symptom monitoring by the patient, increased levels of anxiety, enhanced perceptions of effort, frequently encountered symptoms of mood disturbance, avoidance behaviour perpetuating psychological and somatic symptoms, and increasingly recognised roles for psychosocial and economic factors in sustaining disability. Many of these analogies between chronic fatigue and chronic pain syndromes are seen in by the detailed analysis of psychosocial and economic factors which underpin the epidemic of chronic low back disability which currently affects the Western World, . Common factors associated with the exhibition of chronic pain or chronic fatigue need further scrutiny and analysis. Focused research along these lines may well unravel the fundamental processes and their interaction in the biological, social and psychological spheres, which contribute to these complex and disabling disorders.

Conclusions

In an attempt to gain some understanding of contemporary chronic fatigue syndromes this paper has taken an historical perspective. Are there any rewards from taking such an approach? Certainly there is nothing new in the conflicting arguments which pose either an organic or a psychological basis for CFS. The history of Neurasthenia demonstrates an initial acceptance of an ill-defined, organic aetiology. This could not be sustained as more was learned about the people who were labelled with this diagnosis, as the application of the scientific method evolved and as disease mechanisms became better understood and related to discernible pathology. A psychological aetiological model fared no better as a sole explanation for the occurrence of neurasthenia. Neither an organic nor a psychological empirical model sufficed as an explanation for neurasthenia or for the other emerging fatigue-related syndromes that are discussed in this paper. The same holds true today in considering the aetiological basis for CFS.

The striking importance of social factors and cultural attitudes in the historical and contemporary records yields salutory lessons. The recognition and acceptance of newly described illnesses such as Neurasthenia in the mid Victorian era and CFS in this modern age may represent, in some fashion, quite similar sociocultural perspectives prevalent in these two eras. CFS today and Neurasthenia in the nineteenth century share acceptability as a diagnostic label legitimizing disability. History demonstrates the difficulties in advocating a single aetiological explanation and demonstrates the inescapable emotion and conflict which pervades discussion of the legitimacy or otherwise of fatigue syndromes which by their very nature are largely subjective. CFS, Neurasthenia and other chronic fatigue syndromes do not have single causes. They are all multifactorial processes. In each patient there may well be biological, psychosocial, behavioural, emotional, cultural and even genetic factors which predispose, precipitate or perpetuate the illness. The relative contribution of those to the expression of the syndrome needs to be evaluated in the individual patient if the goal of effective management is to be achieved. The evidence suggests a distortion of the perception of the sense of effort at the heart of the chronic fatigue syndromes. There are many similarities between patients with chronic fatigue and chronic pain syndromes. We have no clear understanding of the elements of disordered perception of effort and the complex influences which herald the transition from symptoms to disability in the chronic fatigue syndromes. But the recognition of these, and similarities shared with patients affected by chronic pain syndromes, bodes well for enlightenment from thorough investigation and research in these particular areas.

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Neurasthenia: Some Quotes from its Literature

"...destitute of the objective signs which experimental medicine of our times more particularly affects." (Blocq, 1894)

"...is a condition of nervous exhaustion, characterized by undue fatigue on slightest exertion, both physical and mental.....the chief symptoms are headache, gastrointestinal disturbances, and subjective sensations of all kinds..." (Cobb, 1920)

"...incapacitated for all forms of mental and physical exertion..." (Deale & Adams, 1894)

"...write down their symptoms in long memoranda which they hasten to read and explain." (Blocq, 1894)

"...unusually rapid exhaustion mainly affects the mental activities; the power of attention becomes quickly exhausted and the capacity for perception is paralysed." (Oppenheim, 1908)

"(fatigue).....comes early, is extreme and lasts long..." (Mitchell, 1883)

Bibliography

1. Nelson E, Kirk J, McHugo G, and others (1987) Fam. Pract. Res., 6, 175-188

2. Krocuke K Wood D, Mongelsdorff D, and others (1988) J. Am. Med. Assoc., 260, 929-934

3. US Dept of Health and Human Statistics. National Ambulatory Medical Care Survey, USA, 1975-81 and 1985 Trends. Series 13, No 93. Hyattsville, Maryland, National Center for Health Statistics (1988).

4. Wessely S, Chalder T, Hirsch S, Wallace P, Wright D (1997) Am J. Pub. Health, 87, 1449-1455.

5. Chief Medical Adviser's Expert Group on Chronicity and Prognosis in Chronic Fatigue Syndromes (1996) Department of Social Security, London, UK.

6. Rabinbach A (1992) The human motor-energy, fatigue and the origins of modernity, Berkley, University of California Press.

7. Showalter E (1997) Hystories: Hysterical Epidemics and Modern Culture. Picador, London.

8. Oppenheim H (1908) Text-book of Nervous Diseases for Physicians and Students, Fifth Edition. Foulis, London.

9. Ash E (1909) Nervous breakdown: the disease of our age. Med. Times, 37, 35-54.

10. Beard G (1869) Neurasthenia, or nervous exhaustion. Bost. Med. Sur. J., 3, 217-221.

11. Van Deusen E (1869) Observations of a form of nervous prostration, (neurasthenia), culminating in insanity. Am. J. Insanity, 445-461.

12. Blocq P (1894) Neurasthenia. Brain, 14, 306-314.

13. Cobb I (1920) A Manual of Neurasthenia (Nervous Exhaustion). Bailliere, Tindall and Cox, London.

14. Deale H, Adams S (1894) Neurasthenia in young women. Am. J. Obstet., 29, 190-195.

15. Mitchell S (1883) Fat and Blood, Third Edition, J. Lippincott, Philadelphia.

16. Shorter E (1992) From Paralysis to Fatigue: a History of Psychosomatic Illness in the Modern Era, Free Press, New York.

17. Lownfeld L (1887) Die moderne Behandlung der Nervenschwache (Neurasthenie). Hysteria und Verwandte Leiden. Bergman, Wiesbaden.

18. Beard G (1881) American Nervousness, G P Putnam's, New York.

19. Freud S (1985) On the grounds for detaching a particular syndrome from neurasthenia under the description 'anxiety neurosis'. In: Strach eg. J(ed) Standard Edition, Hogarth Press, London.

20. Clouston T (1892) Clinical Lectures on Mental Diseases, Third Edition, Churchill, London.

21. Dejerine J, Gauckler E (1911) Les Manifestations Functionelles des Psychoneuroses; Leur Traitement par la Psychotherapie, Masson, Paris.

22. Allbutt T (1899) A System of Medicine, Macmillan, London.

23. Brock A (1911) Ergotherapy in neurasthenia. Edin. Med. J., 430-434.

24. Charcot J (1889) Lecons du Mardi a la Salpetriere, Lecrosniew and Babe, Paris.

25. Jelliffe S, Clark L (1903) The work of a neurological dispensary clinic. J. Nerv. Ment. Dis., 30, 482-488.

26. Wessely S, Hotopf M, Sharpe M (1998) Chronic Fatigue and its Syndromes, Chapter 5, Neurasthenia, p 101, Oxford University Press, Oxford, New York, Tokyo.

27. Ross T (1937) The Common Neuroses, Second Edition, Edward Arnold, London.

28. Bleuler E (1924) Textbook of Psychiatry, Macmillan, New York.

29. Mitchell S (1908) J. Am. Med. Assoc., 25, 2033-2037.

30. Anon. Review of Prengowski, "Les Maladies Neurastheniques". (1929) J. Nerv.Meut. Dis., 69, 353.

31. Clayton M (1926) When is the diagnosis of neurasthenia justified? US Veterans Bureau Med. Bull., 2, 61-64.

32. De Fleury M (1901) Les Grands Symptomes Neurasthenique (Pathogenie et Traitement), Germer Bailliere, Paris.

33. Tredgold A (1911) Neurasthenia and insanity. Practitioner, 86, 84-95.

34. Kitanishi K Kondo K (1994) The rise and fall of neurasthenia in Japanese psychiatry. Transcult. Psychiatric Res. Rev., 31, 42-49.

35. Rankin G (1903) Neurasthenia; the wear and tear of life. Br. Med. J., i, 1017-1020.

36. Chatel J, Peele R (1970) A centennial review of neurasthenia. Am. J. Psychiat., 126, 48-57.

37. Wilbur D (1949) Clinical management of the patient with fatigue and nervousness. J. Am. Med. Assoc., 141, 1199-1204.

38. Smythe H (1989) Fibrositis syndrome: a historical perspective. J Rheumatol., 16 (Suppl. 19, 2-6.

39. Gowers W (1904) Lumbago, its lessons and analogues. Br. Med. J., i, 117-121.

40. Shorter E (1992) From Paralysis to Fatigue: A History of Psychosomatic Illness in the Modern Era, Free Press, New York.

41. Smythe H, Moldofsky H (1977). Two contributions to understanding of the "fibrositis" syndrome. Bull. Rheum. Dis., 28, 928-931.

42. Buchwald D (1996) Fibromyalgia and Chronic Fatigue Syndrome: similarities and differences. Rheumat. Dis. Clin. N. Am., 22, 219-243.

43. Wolfe F, Smythe H, Yunus M, and Others (1990). The American College of Rheumatology 1990 Criteria for the Classification of Fibromyalgia: report of the Multicenter criteria committee. Arth. Rheumat., 33, 160-173.

44. Cohen M, Quinter J (1993). Fibromyalgia syndrome, a problem of tautology. Lancet, 342, 906-909.

45. Wolfe F, Ross K, Anderson J, Russell I (1995). Aspects of fibromyalgia in the general population: sex, pain threshold and fibromyalgia symptoms. J. Rheumatol., 22, 151-156.

46. Yunus M, Masi A, Aldag J (1989). A controlled study of primary fibromyalgia syndrome: clinical features and association with other functional syndromes. J. Rheumatol., 16 (suppl. 19), 62-71.

47. Goldenberg D, Simms R, Geiger A, Komaroff A (1990). High frequency of fibromyalgia in patients with chronic fatigue syndrome seen in a primary care practice. Arth. Rheumat., 33, 381-387.

48. Ramsay M (1986). Postviral Fatigue Syndrome: The Saga of Royal Free Disease, Gower Medical, London.

49. Buchwald D, Goldenberg D, Sullivan J, Komaroff A (1987). The "chronic active Epstein-Barr virus infection" syndrome and primary fibromyalgia. Arth. Rheumat. 30, 1132-1136.

50. Goldenberg D (1988). Fibromyalgia and other chronic fatigue syndromes: is there evidence for chronic viral disease? Sem. Arth. Rheumat., 18, 111-120.

51. Croft P, Schollum J, Silman A (1994). Population study of tender point counts and pain as evidence of fibromyalgia. Br. Med. J., 309, 696-699.

52. Masi A, Yunus M (1986). Concepts of illness in populations as applied to fibromyalgia syndromes. Am. J. Med., 81, 19-25.

53. Makela H, Heliovaara M (1991). Prevalence of primary fibromyalgia in the Finnish population. Br. Med. J., 303, 217-219

54. Grant R (1926). Observations on the after histories of men suffering from the effort syndrome. Heart, 12, 121-142.

55. Lewis T (1918). Report on neuro-circulatory asthenia and its management. Military Surg., 42, 409-420.

56. Mackenzie J (1916). Soldier's Heart. Br. Med. J., i, 117-120.

57. Wooley C (1976). Where are the diseases of yesteryear? Da Costa's syndrome, soldier's heart, the effort syndrome, neurocirculatory asthenia - and the mitral value prolapse syndrome. Circulation, 53, 749-751.

58. Cohn A (1919). The cardiac phase of the war neuroses. Am. J. Med. Sci., 158, 453-470.

59. Wood P (1968) Diseases of the Heart and Circulation, Lippincott, Philadelphia.

60. Fava G, Magelli C, Savron G, & Others (1994). Neurocirculatory asthenia: a reassessment using modern psychosomatic criteria. Acta. Psychiat. Scand., 89, 314-319.

61. Axenfield A, Huchard H (1883). Traite des Neuroses, Germer-Bailliere, Paris.

62. Bassett-Smith P (1903). Duration of Mediterranean fever. Br. Med. J., ii, 1589.

63. Spink W (1951). What is chronic brucellosis? Ann. Int. Med., 35, 358-374.

64. Cluff L, Trever R, Imboden J, Canter A (1959). Brucellosis II. Medical aspects of delayed convalescence. Arch. Intern. Med., 103, 398-405.

65. Imboden J, Canter A, Cluff L (1959). Brucellosis III. Psychologic aspects of dealyed convalescence. Arch. Intern. Med., 103, 406-414.

66. Hickie I, Lloyd A, Hadzi-Pavlovic D, & Others (1995) can the Chronic Fatigue Syndrome be defined by distinct Clinical Features? Pschol. Med, 25, 925-935.

67. Lawrie S, MacHale S, Power M, Goodwin G (1981) Is the Chronic Fatigue Syndrome best understood as a primary disturbance of the sense of effort? Psychol.Med., 27, 995-999.

68. Joint Working Party of The Royal Colleges of Physicians, Psychiatrists and General Practitioners (1996) Chronic Fatigue Syndrome., Royal College of Physicians, London.

69. Sharpe M, Hawton KE, Siniken S, & Others (1996) Cognitive Behaviour Therapy for Chronic Fatigue Syndrome: a randomized controlled trial. Br. Med. J., 312, 22-26.

70. Russell IJ (1995) Neurohormonal: abnormal laboratory findings related to pain and fatigue in fibromyalgia. J. Musculoskel. Pain, 3, 59-65.

71. Hampf G (1989) Effects of serotonin antagonists on patients with atypical facial pain. J. Graniomandibular Disord. 3, 211-212.

72. Aylward M (1976) Estrogens and plasma tryptophan levels in perimenopausal patients. In: Management of the Menopause and Post-menopausal years. (Campbell S; Ed) MTP Press, Lancaster, England.

73. Cleare A, Bearn J, Allain T, & Others (1995) Contrasting neuroendocrine responses in depression and chronic fatigue syndrome. J Affect. Disord., 35, 283-289.

74. Demitrack M (1996) The psychology of chronic fatigue: the central nervous system as a final common pathway. In: Chronic Fatigue Syndrome: An Integrative Approach to Evolution and Treatment (Demitrack M, Abbey S; Eds). Guildford Press, New York.

75. Waddell G (1998) A Biopsychosocial Model. In: The Back Pain Revolution, pp 225-240. Churchill-Livingstone, London.

76. Aylward M (1998)

CHRONIC FATIGUE AND ITS SYNDROMES

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Introduction

Does the National Insurance Administration (NIA) in Norway recognise the existence of chronic fatigue syndrome (CFS) as a distinct clinical entity?

Yes with regard to sickness and rehabilitation benefits, but so far not yet for disability pension (1, 5). The problem with regard to disability pension is related to the duration of the syndrome (5).

What criteria have to be met for acceptance of CFS, or myalgic encephalomyelitis (ME)?

There is a need for a thorough medical and vocational history and a thorough medical examination to exclude other somatic and psychiatric disorders, and a proper functional assessment.

Do the fatigue syndromes, and particularly the CFS pose any particular problems in assessing functional effects for state benefits or insurance purposes?

Yes

Further, we are asked to focus on what is important in - the gathering of medical evidence? - the clinical and disability examination? - the determination of prognosis? - successful management?

History

The syndrome was common in the latter part of last century. The New York physician George Beard applied the label "neurasthenia" which has all the symptoms, but has become a convenient way to avoid a psychiatric label. The second wave can be dated to 1934. A large outbreak of paralytic illness occurred among the staff of Los Angeles County Hospital ("epidemic neuromyasthenia"). A similar outbreak was reported at the Royal Free Hospital in London in 1955. This "epidemic" was probably a mass conversion hysteria and called "benign" ME. Such outbreaks should be distinguished from the isolated cases now encountered (9).

CFS has been reported world wide. Case definitions and epidemiology criteria have been developed by eg. Centers for Disease Control and Prevention (CDC) (3). In October 1996 a report was published on CFS of a joint working group of the Royal Colleges of Physicians, Psychiatrists and General Practitioners (4). Professor Nyland at the Department of Neurology in Bergen, has given me a summary of a scientific meeting in Glasgow this spring (7). A list of some synonyms were shown.

Diagnostic criteria

The diagnostic criteria of the ME versus CFS were discussed. The "London" criteria for the selection of subjects for research into ME/PVFS comprise five major and two minor criteria.

All five major criteria must be present for at least six months and ongoing for a diagnosis of ME/PVFS. The two minor criteria lends further support. The list is not exhaustive. The main clinical features of CFS are fatigue, myalgia, sleep disturbance, neurological complaints, mood changes and autonomic disturbances. A leading BMJ-article in 1993 (9) considered CFS the most appropriate label. The illness may be triggered by a viral infection, but this is not true for all patients. A combination of physical and emotional stress, medical and psychiatric problems may also give this medical condition. Thus, the term "postviral fatigue syndrome" (PVFS) is best avoided according to BMJ. However, the neurologists in Bergen use that term in patients with an acute start of symptoms after an infection (7). PVFS starts acute with no free interval, leads to a reduction of functional capacity of more than 50%, lasting more than 6 months, with the exclusion of other somatic and psychiatric diseases or syndromes.

CFS is now universally accepted as a diagnosis for research purposes, but still not yet as a clinical entity for clinical practice. This creates a problem for the patients.

Epidemiology

Due to the differences in definitions and terminology, it is difficult to get reliable epidemiology figures. The prevalence is given as 0.8-2.3/1000 by CDC (8). In a Norwegian county, just outside Oslo, the prevalence was estimated to 0.9/1000 (figures given by the ME-association in Norway; corrected by Nyland). The incidence in Norway is estimated to be 5/100 000; mainly affecting individuals aged 20-60 years; teachers and health personnel predominating, but also affecting students and retired professionals. So far only four children are identified in Norway.

Etiology

The etiology is unknown. Possible etiologic factors are viruses, central neurochemical transmission abnormalities, psychosomatic convertion syndromes (hysterias), endocrine hypothalamic pituitary dysfunction, microbubbles, overtraining and dietary factors like depletion of essential fatty acids or vitamins (3, 4, 7, 8, 9).

"British Doctors Says It's All in the Eyes" (6). The ME sufferers respond to light and motion stimuli in an unusual way with an initial period of instability when the pupil fluctuates in size.

This is possibly a result of a deficiency of a neurotransmitter (5HT) in vulnerable persons due to a specific psychological make-up (6).

Policy of the norwegian NIA

The policy of the norwegian NIA was partly given in the introduction. Probably about 200 individuals will yearly receive this diagnosis. The diagnosis need to be made by competent specialist physicians; that know the criteria to be used for making such diagnosis and the necessary investigations necessary to exclude other possible diagnoses. Several practical and economic problems are currently under consideration by the NIA (5).

In Veldhoven two years ago today's chairperson discussed the medical model versus the disability model. The medical model comprises diagnosis and impairment/loss of faculty, whereas the disability model restrictions and/or limitations (disability) and functional capacity/handicap. The NIA uses mainly the disability model for benefit criteria, whereas physicians in their assessments still focus more on the medical model.

The Department of Neurology, Haukeland University Hospital, Bergen has been proposed as a reference centre for diagnosing PVFS.

Experience by Professor Nyland in Bergen

Professor Nyland has investigated 250 patients according to the international "London criteria". About 50 conform with acute PVFS. The biggest group of patients conform with CFS and have a disease duration of more than four years. The diagnosis is made by exclusion of all possible somatic and psychiatric conditions known to be associated with severe fatigue. He uses extensive tests for the medical history with a check list of 27 items and nine for the fatigue severity scale (FFS); haematological, immunological, microbiological and endocrinological tests; neuropsychology tests for cognition, distractibility (Wechsler), personality profile (MMPI), depression and somatization. Many patients also need a psychology/psychiatric consultation.

In his experience the patients need a full somatic and psychiatric investigation. Among the differential diagnoses are: Low serum Fe, vascular encephalopathies, multiple sclerosis, hypothyreosis, Sjogren syndrome and systemic lupus erythematosus.

Relationship with psychiatric disorders

Three out of four patients with CFS have been reported with a psychiatric disorder (9). The most common is depression. Anxiety and somatisation disorder are less frequent. The depression is usually endogenous or neurastenic with psychosocial latent interpersonal conflicts. Patients with CFS are less likely to report feelings of guilt, unworthiness and selfblame than other patients with depression (9).

Management

Most patients should be managed within primary care (4). Management should address psychological disorders and information about the nature of the condition, avoidance of activity, exercise intolerance and sleep disorder. Graded exercise and/or cognitive behavioural treatment are helpful in management. A small proportion of patients needs access to specialist facilities of a multidisciplinary nature (4).

From the Glasgow meeting this spring (8): Due to possible recurrence, periodic re-assessment is recommended. For irritable bowel try pinodol. Women may need oestrogen for menstrual problems. Immunizations should be avoided if possible. For mood swings non sedating antidepressants; eg sertraline or venflaxatine may be used. For hemisensory loss carbamepine or lamotrigine may be used. Exposure to chemical triggers to which the patient is sensitive, should be avoided. Extreme warmth can make symptoms worse. Infections need to be dealt with. Cortisol and mineralocorticoids are not effective. Further, the end point of management is to improve fatigue by improving neurotransmitters and ion channels (8).

Management strategies according to Nyland (7) are: Listen to body signals, avoid unnecessary physical activity and stress, increase antidepressive agents gradually and inform about the syndrome and coping strategies. Many patients express anger and frustration with a health profession that lack knowledge about the condition. Self-diagnosis is not uncommon.

Prognosis

Prognosis of PVFS: 35% are cured, 40% are almost cured and 25% are chronically severely ill (7). Patients with PVFS very uncommonly become bedbound (7, 8). If no improvement occur during the first year, there is little chance of recovery; and vice versa. Clinical scenarios for a good and poor prognosis have been given by a british government's expert group (2).

Final comment

According to Nyland (7) these patients are ill and usually have a sensitive personality. The severely reduced functional capacity leads to pessimism and reactive depression. The clinical picture is different that of patients with conversion neurosis and hysteria that he sees in the neurologic clinic.

I propose that EUMASS form a working group for further discussion of solutions to these difficult problems. Especially, there is need for proper generally accepted functional assessments according to the disability model.

References

1. Aarli JA. Myalgisk encephalomyelitt (ME) som sykdomsbegrep i folketrygdloven ("ME as a disease entity in the national insurance law"). Letter to NIA March 3rd 1995.

2. Aylward M. Government's expert group has reached consensus on prognosis of chronic fatigue syndrome. Publication? 199?, 885.

3. Buchwald D. Fibromyalgia and chronic fatigue syndrome. Similarities and differences. Rheum Dis Clin N. Amer 1996; 22, 219-243.

4. Chronic Fatigue Syndrome. Report of a joint working group of the Royal Colleges of Physicians, Psychiatrists and General Practitioners (CR54). 1996, ??-??

5. Hoybraten D, Edvardsen O. Myalgisk encefalomyelitt (ME)/Postviralt tretthetssyndrom ("PVFS"). National Insurance Administration letter. April 7th 1997

6. James I, Barbur J. British Doctor Says It's All in the Eyes. The Messenger 1996, 23

7. Nyland HI. Personal communication 1998

8. PVFS/ME - status spring 1998, Glasgow meeting - reference Nyland

9. Thomas PK. The chronic fatigue syndrome: what do we know? BMJ 1993; 306, 1557-8

EUMASS - UEMASS 98 LONDON ME/CFS - NORWAY (PVCF)

1)

Difficult problem for patients, families, society

History

- Neurasthenia (19th century)
- Myalgic encephalomyelitis (ME) epidemic, London (1955)
- Chronic fatigue syndrome (CFS)
  (Workshop; Centers for Disease Control and Prevention - CDC)
- Synomyms

Diagnosis/syndrome (CDC)

- ME vs CFS (N: PVCF)
- Accepted?

2)

Epidemiology

- Prevalence 0.8-2.3/1000 (CDC)
- 1.2/1000 (One N county)
- Decreasing # of NI-cases (?)
- Incidence in N: 5/100 000
- Female Age: 20-40; children ? Teachers; health pers.

Etiology

- Virus?
- Central neurochemical transmission abnormality?
- Membrane ion channel dysfunction?
- Microbubbles?

3)

National Insurance Administration - policy?

Functional assessment: "Diagnosis/impairment/disability/handicap"

Time aspect and benefit?

Who diagnose; criteria; who to be examined?

Neurological Dept. at Haukeland University Hospital, Bergen - Reference centre
??

4)

H I Nyland/J A Aarli

- 50 of 250 patients with PVFS. CFS dominating
- Case history with check list (27 items + 9 for fatigue severity scale (FFS)
- Haematological, immunological, microbiological and endocrinological tests
- Neuropychology tests Cognition
    - Distractibility (Wechsler)
    - Personality profile (MMPI)
    - Depression and somatization;
    - Need psychiatric consult.

5)

Some differential diagnoses:

- Infections
- Thyroid/parathyroid disease
- Depression Anxiety disorders
- Somatization
- Fibromyalgia (D. Buchwald)
- Hysteria Hyperventilation syndrome
- Sjogren syndrome
- SLE
- +++

6)

ME - London' criteria

- All major for > 6 months

CFS

- Fatigue
- Myalgia
- Sleep disturbance
- Neurological complaints
- Mood changes

Management

- CFS - report (CR54 Oct 96)
- Nyland:

Prognosis

- 35% Cured
- 40% Almost cured
- 25% Chronic and severe
- Very uncommon bedbound

THE CHRONIC FATIGUE SYNDROME: A REINTEGRATION ORIENTED APPROACH IN THE BELGIAN SICKNESS AND INVALIDITY INSURANCE

Dr Martine Vanden Wijngaert & Dr Peter Donceel
Medical Adviser
Christelijke Mutualiteit
BELGIUM

Diagnosis and Criteria

Holmes (CDC) defined the criteria for CFS in 1988. Over the years, slightly amended criteria have been suggested by various researchers including Fukuda in 1994. Thus, this author makes a distinction between Chronic Fatigue Syndrome and Idiopathic Chronic Fatigue. The diversity of the criteria applied makes it difficult to compare research results.

Definition of the Problem within the Belgian Health Insurance System

In Belgium too, the group of people demanding recognition within the health insurance system is growing. Patient associations are exerting pressure on politicians and the media. Recently, the Minister for Public Health organised a colloquium on CFS: a meeting at which self-help groups, doctors involved in treatment, medical advisors of social security and politicians attempted to reach a consensus. There was a lot of attention from the media. The struggle for recognition as a disease-entity and for the right to health insurance benefits demonstrates how many misunderstandings there are about the way work incapacity is determined. People think that illness automatically results in compensation. In Belgian, however, an benefit for work incapacity is tranted only if there is a loss of at least 2/3 of the earning capacity as a result of the occurrence or aggravation of injuries or functional disorders. It is thus possible for two people to have the same disease, and while one of them is considered incapable for work, the other is not. In the case of CFS, the evaluation of the individual patient is hindered by the diagnostic problems, the difficulty of objectively evaluating the functional impact, the lack of efficient therapy and the limited insight into the prognosis. Whether or not CFS is a scientific entity remains an open-ended question. For insurance doctors, this is less relevant when determining the incapacity for work.

Two Different Approaches

In the clinical and scientific approach to CFS, we can define two main tendencies. A number of researchers believe in a strictly somatic aetiology. They assume a possible post-infectious cellular deficit. A subgroup of CFS patients would suffer from a deregulation of the 2-5 oligoadenylate-synthetase/RNAseL pathway which intervenes in the cellular antiviral defence. This hypothesis still remains to be confirmed, however, but it has been much publicised in the Belgian media. In my opinion, this exclusively somatic approach can not fulfil the related hope of a cure.

On the other side, there are doctors who approach CFS as a multifactorial condition. In this case, somatic, psychological and psycho-social factors interact. A stressed premorbid lifestyle is more prevalent in CFS patients than in controls. The prevalence of anxiety, depressive mood and somatization disorders is higher than in the control group. A thorough psychodiagnostic screening and psychiatric evaluation of each of these patients is imperative, but in our opinion, much too often this is done insufficiently in certain strictly somatically-oriented centres.

Since CFS is not a clear clinical entity, and has an unclear pathpphysiology, there are also no clear guidelines for treatment.

There are numerous medicinal therapies such as Mg-infusions and Ampligen, although there is no scientific evidence yet available to support them. The multidisciplinary good clinical care approach can provide a valuable alternative. The basis for this is:

- that CFS is a multifactorially determined disease, there are stress-related factors;
- that CFS is often maintained by physical and psychological vicious circles;
- therapy oriented towards bio-psychosocial rehabilitation;
- the prospect of a universal diagnostic test is premature.

The Approach of the Medical Advisors in Social Security

A good approach in the first year of illness is important because somatic attribution and the long duration of the illness are negative prognostic factors. As long as there is no more clarity surrounding the aetiology, we support a multidisciplinary approach with concern for both the somatic and the psychological and psychiatric aspects of the disease. An early, active approach on the part of the medical advisors of the social insurance can function as a support and can help to avoid excessive somatic attribution and too many technical tests.

We try to invite the patient at our consultation within the first month of his work incapacity. Afterwards, during the first year of work incapacity, we examine the patient on average once a month. We try to avoid discussions about the exact diagnosis, because this leads very often to a vehement discussion about the reality of complaints and symptoms. In these cases, all the energy of the patient, often of his treating physician, goes to a useless debate about the reality of the syndrome. That is a major obstacle for the recovery process, as was very well described in the title of a recent editorial: "If you have to prove you are ill, you cannot get well."

We try to stimulate physical activity as soon as possible and a gradual, possibly part-time reintegration into the work process, in collaboration with the doctors involved in treatment and - if possible - the occupational physician of the patient's company. This can contribute significantly to the success of a multidisciplinary approach.

References

1. Bates DW, Buchwald D, Lee J & kith P et al. Clinical laboratory test findings in patients with chronic fatigue syndrome. Arch Intern Med 1995; 155:97-103

2. Bleijenberg G Attributes en chronische vermoeidheid. Ned Tijdschr Geneesk 1997; 141: 1510-2

3. Blondel-Hill E, Shafran SD. Treatment of the CFS. A review and practical guide. Drugs 1993; 46(4)639-651

4. Bobbaers H. HEt chronisch vermoeidheidssyndroom. In: syllabus Vervolmakingscyclus Verzekeringsgeneeskunde 1992-1993; 31:25-32

5. Buchwald D, Komaroff AL. Review of laboratory findings for patients with CFS. Reviews of infectious diseases 1991; 13 (suppl 1): 12-18

6. Cope H., David A & Pelosi A Mann A. Predictors of chronic "postviral" fatigue. Lancet 1994 a; 344: 864-868

7. Demitrack MA. CFS: a disease of the hypothalamic-pituitary-adrenal axis ? Ann Med 1994; 26:1-5

8. Engelborghs, Michiels, De Deyn: De rol van het czs in de pathofysiologie van cvs. Rijd-schrift voor geneeskunde 1998; 1:25-31.

9. Fukuda et al: The chronic fatigue Syndrome: a comprehensive approach to its definition and study.

   Annals of Internal Medicine. Vol 121, 1994. December 15: 953-959.

10. Holmes G, Kaplan J, Gantz N, et al. Chronic Fatigue Syndrome: a working case definition. Ann Intern Med 1988; 108: 387-389

11. Komaroff AL, Strauss SE & Gantz NM. The chronic fatigue syndrome. Ann Intern Med 1989; 110(5): 407-408

12. Komaroff AL. Clinical presentation of CFS. Chronic Fatigue Syndrome, Jon Whiley & Sons, Chicester, 1993, 43-61

13. Sharpe M. Non-pharmacological approaches to treatment. Chronic Fatigue Syndrome, John Wiley & Sons, Chichester, 1993, 297-317

14. Suhadolnik R., Petersson D., De Meirleir K. et al.: Biochemical evidence for a novel low molecular weight 2-5A dependent Rnase L in CFS. Journal of Interferon and Cytokine Research 1997; 17|: 377-385.

15. Swaninck CMA, Meer JWM van der, Vercoulen JHMM, Bleijenberg G, Fenis, Galama JMD, Ebstein Barr virus and CFS: normal virus load in blood and normal immunoreactivity in the EBV regression assay. Clin inf dis 1995; 20: 1390-2

16. Strayer RD, Carter WA & Brodsky I, cheney P, et al. A controlled clinical trial with a specifically configured RNA drug, Poly (1).Poly(C12U), in CFS. Clin Inf Dis 1994; 18 (suppl 1): 88-95

17. Van Houdenhove B. Het CVS. Visie van een liaison-psychiater. Tijdschr voor Geneesk 1991;135:2010-2013

18. Van Houdenhove B. Evaluation of work incapacity in psychosomatic diseases. Lecture for the Belgian Association of Assurance Medicine; April 1998

19. Vercoulen, Zitran, Fenis, Galama Van der Meer, Bleijenberg. Green effect van fluoxetine bijn CVS; gerandomiseer, dubbelblind, , placebo-gecontrleerd onderzoek. Ned Tijdschr voor Geneesk 1997; 141: 1531-1535

20. Wessely S. Outcome n CFS. BMJ 1992; 305:365

21. Wesseky S., Butler S., Chalder T., David A. The cognitive behavoural management of the postviral fatigue syndrome. Sec. Ed. J. Wiley & Sons, Chichester, 1992:305-334

CFS : DIAGNOSIS AND CRITERIA

The criteria from Holmes (1988) and Fukuda (1994) are applied the most often. The diversity of criteria hinders the comparison of research results and patient groups.

CFS: DEFINITION OF THE PROBLEM WITHIN THE BELGIAN HEALTH INSURANCE SYSTEM

In Belgium, benefits for work incapacity are granted if there is a loss of at least 2/3 of the earning capacity as a result of the occurrence or aggravation of injuries or functional disorders. The evaluation of the individual CFS patient is complex on account of the diagnostic problems, the difficulty of objectively evaluating the functional impact, the lack of efficient therapy and the limited insight into the prognosis.

CFS: TWO DIFFERENT APPROACHES

A number of researchers believe in a purely somatic aetiology. On the other side, there are doctors who regard CFS as a multifunctional disease. In this case, somatic, psychological and psychosocial factors interact.

CFS: THE APPROACH OF THE INSURANCE DOCTORS

An early, active approach by the social insurance doctors can function as a support and can contribute to a more rapid reintegration into society. At the moment, we feel that a multidisciplinary approach is the most advisable.

- first examination after a few weeks
- monthly examination during first year
- Avoid useless discussion about diagnostic entity
- stimulate:
  - physical activities
  - gradual reintegration into the work process
- support multi-disciplinary approach
- collaboration with
  - treating physician
  - occupational physician
- long-lasting complaints : realistic approach, limited possibilitie