

# History of postviral fatigue syndrome

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In writing a history of any illness there is always a dilemma whether to attempt the story of the condition 'itself', the medical attempts to define its nature, or to glimpse it via our changing reactions. The easiest is a straightforward account of the attempts of scientists to solve a problem—the classic medical detective story. However, this is often more fiction than fact. Medicine rarely moves smoothly from ignorance to knowledge, but often in a more circular fashion. A historical approach is thus not solely a record of who did what, but also contributes to our understanding of the problems under scrutiny in this issue.

Terminology is never easy in this subject, but the following conventions will be used: The terms neurasthenia and ME will be used in their actual context (as authors themselves used them), without defining either. Post-infectious fatigue syndrome (PIFS) will cover similar conditions when related to infective episodes. All will be used in a neutral fashion, to refer to changing realities as understood by doctors and historians.

This chapter attempts both chronological description and social analysis. The justification for this approach is clear in the case of neurasthenia, since 'as so little was known of its pathological basis physicians' statements regarding the disease were composed more of social and cultural elements than of scientific knowledge'.<sup>1</sup> Although much has changed, a contemporary account still reveals as much about cultural attitudes as the advance of science.<sup>2</sup>

## NEURASTHENIA: THE BEGINNING

Modern investigators often remark on the similarities between the current preoccupation, PVFS, and neurasthenia (for example<sup>3–5</sup>).

This can be confirmed by comparing the clinical description contained in the contribution by Behan (this issue) with those of neurasthenia. 'Neurasthenia is a condition of nervous exhaustion, characterised by undue fatigue on slightest exertion, both physical and mental, with which are associated symptoms of abnormal functioning, mainly referable to disorders of the vegetative nervous system. The chief symptoms are headache, gastrointestinal disturbances, and subjective sensations of all kinds'.<sup>6</sup> Authors had their own favourite symptoms—cardiac, gastric, cerebral, ocular, gynaecological and so on, but at the core was 'neuromuscular weakness—by all writers this is accounted for as the most frequently observed objective sign of disease'.<sup>7</sup> This fatigue had certain characteristics—it 'comes early, is extreme and lasts long',<sup>8</sup> and is 'the first, and most important symptom'<sup>9</sup>—hence neurasthenics had 'abnormally quick fatigability and slow recuperation'.<sup>10</sup>

Nevertheless, neurasthenia was also 'destitute of the objective signs which experimental medicine of our times more particularly affects'.<sup>11</sup> Sufferers looked normal, and were typically 'well nourished, muscularly well developed',<sup>12</sup> although others described states of complete motor helplessness.<sup>13</sup> It also had no significant mortality (indeed, some claimed the opposite<sup>14</sup>). The similarities between neurasthenia and PVFS are inescapable, and authors are now beginning to draw on this legacy.<sup>2,15,16</sup>

Neurasthenia arrived on the medical scene between 1860 and 1880. Contemporaries viewed it as new, increasing and alarming. It was held to be both a consequence, and the cause, of numerous social problems. It was the price to be paid for industrialisation, the rise of capitalism, and the consequent strains to which the business and professional classes were exposed<sup>17</sup>—it was 'the disease of the century'.<sup>18–20</sup>

The Victorian physicians were hampered by two factors in their effort to convert these observations into scientific hypotheses. First, such observations demonstrate a familiar theme, how social prejudice influences medical thinking. Second, they were restricted by the prevailing scientific concepts of the time. For example, it was a clinical observation that illness often followed overwork, especially mental effort ('brainwork'). Prejudice is suggested by physicians using this association to support beliefs that neurasthenia did not occur in the lower classes (allegedly not subjected to such work!), in less civilised races, and in women (*see* Mitchell Clarke<sup>21</sup> or Althaus<sup>22</sup> for examples of all three). The influence of

contemporary scientific theory appears in their explanations of how this might occur. During the early years of interest in neurasthenia the prevailing neurological paradigm was the reflex hypothesis—thus exhaustion of the peripheral nerves resulted from excessive irritation that itself resulted from overstimulation.<sup>23</sup> However, the remarkable flourishing of neurophysiology soon discredited the reflex hypothesis. The muscles and reflex arc were not in a state of exhaustion, nor were the neurasthenic cells too excitable—‘to be excitable is their business’.<sup>24</sup>

As views of the nervous system changed, especially under the impact of the new laws of Thermodynamics and Conservation of Energy<sup>24–26</sup> so did the nature of neurasthenia. An exhaustion of the central nervous system and its supply of energy was now advanced, and writers described ‘cortical weakness’<sup>27</sup> or ‘cortical irritability’.<sup>28</sup> The resulting morbid condition was both ‘real and central’.<sup>29</sup> Central exhaustion came about in various ways—a failure of cerebral blood flow, a deficiency in energy sources, a genetic fault, or alternatively excessive demands made by the body. These could result from overwork, or the demands made by toxic, metabolic or infective insults.

Further work again brought even this model into disrepute. Adolf Meyer later wrote that the ‘remarkable changes in the nerve cells’ which others had found, which were ‘highly fashionable and a matter of pride to both patient and diagnostician ... could not be replicated. Fatigue exhaustion is no longer tenable’.<sup>30</sup> The consequence was a loss of faith in simple neurological explanations—the first issue of the *Journal of Abnormal Psychology*<sup>31</sup> criticised the previous ‘mechanical symbolism’ of descriptions of neurasthenia, with the false belief that ‘for every pathological manifestation there must be an underlying, definite “disease process”’, and the ‘futility of the purely anatomical concept’ expressing itself in ‘apologetic reproductions of nerve cells in a state of fatigue’.

In its place came the psychological model. This took two stages. First, neurasthenia was viewed as a psychological, rather than a physical illness. Distinguished neurologists such as Déjérine, Dubois and Putnam were particularly influential here. Second, the category itself was dismembered, and replaced by new psychiatric diagnoses, especially anxiety and depression. Most people associate Freud and Janet with this process, but others were important, especially New York neurologist Charles Dana.<sup>32</sup>

Freud, Janet, Bernheim and others continued to believe in a physical neurasthenia, but thought it was rare.

The organicists countered such observations in two ways. First, the present methods of investigation were too crude to detect the organic changes<sup>14,33</sup>. Second, psychological symptoms, if present, were part of the physical neurasthenic state.<sup>34,35</sup> Alternatively, the affective changes were an understandable reaction to the illness. In a speech to the American Neurological Association Weir Mitchell referred to his own early neurasthenia,<sup>9</sup> and pointed out how depression could not be an explanation for his condition, since he had 'no depression that was abnormal or unreasonable'. He used his own example, and that of 'an eminent president of the college' to reaffirm that it was impossible that neurasthenia could be 'a malady of the mind alone'.

Nevertheless, these became increasingly minority views. By 1906 a neurological journal could describe an eminent patient as suffering from 'neurasthenia or mild melancholia'.<sup>36</sup> The 'or' would have been unthinkable a decade earlier. When the London Medical Society debated neurasthenia in 1913, Kinnier-Wilson wrote that 'it was clear... from the discussion that Beard's original description of "American Nervousness" as a physical and not a mental state was evidently not accepted by several of the speakers'.<sup>37</sup> The successive editions of one important English psychiatric text show how neurasthenia moved from the neuroses (meaning a disease of the nerves, an organic neurological diagnosis) to the psychoneuroses.<sup>38</sup> Neurologists at the Massachusetts General Hospital had already done the same,<sup>39</sup> whilst in France both Dutil and Déjérine, pupils of Charcot, wrote that 'Beard's illness must now be seen as of mental origin'<sup>40</sup> and also listed it as a psychoneurosis.

The replacement of organic by psychological models of aetiology was mirrored in changes in treatment. The first category of treatments were pharmacological, drugs used either to stimulate a fatigued system, or alternatively to sedate an over excitable one. These all proved unsatisfactory,<sup>12</sup> since they rarely worked, and the patients were exquisitely sensitive to side effects. The concept of a deficiency in energy also led to the flourishing of electrical treatments for neurasthenia (*see* References 8, 14, 41) since, in the age of electricity, the notion that the deficiency of nerve energy could be made up by electrical stimulation was a seductive one.<sup>25</sup>

The principle treatment was the rest cure. It seemed logical that if the illness was due to overwork, then the solution was rest.

This was given respectability by reference to the physical paradigm that resulted from the new laws of thermodynamics—rest conserved energy, the quantity which neurasthenics lacked. Weir Mitchell, the doyen of American neurology, first popularised the cure in a series of best sellers, summed up in the contemporary catch phrase ‘Doctor Diet and Doctor Quiet’. By 1881 the ‘cure’ was being used in England, largely due to society obstetrician William Playfair,<sup>42</sup> who proclaimed it ‘the greatest advance of which practical medicine can boast in the last quarter of the century’, and three years later it was available in Scotland.<sup>43</sup>

It was in Germany and the USA that the rest cure found its most ready acceptance. Large numbers of ‘retreats’, private clinics and rest homes appeared in these countries between 1880 and 1900,<sup>17,44,45</sup> although business was also flourishing in the United Kingdom.<sup>46</sup> It was financially vital to the neurologist, since one should not ‘*undertake a thoroughgoing course of this sort of treatment unless in a private institution*’.<sup>47</sup> Fortunately the author continued, ‘We have in Germany an abundance of good private institutions’. The rest cure became the most used treatment for nervous disorder across Central Europe and America. It ‘provided the *raison d’être* for the clinic, since isolation could not by definition be procured at home, nor could the expensive apparatus of electrotherapy’. Mitchell himself may have earned \$70,000<sup>44</sup> in private practice per year. As Shorter<sup>48</sup> points out, ‘physicians in these competitive, profitmaking clinics were happy to comply with the patients’ desire for face saving (organic) diagnoses, and made great use of such expressions as ... chronic fatigue and neurasthenia’.

Rest cure was successful for about 30 years, but then became another casualty of the failure of the somatic model. If there was no cellular basis to exhaustion, then rest was thought to be first unnecessary, and later contraindicated. The growing awareness that all the business of the cure, the diet, massage, electricity etc, were just props for the physician to exhort and encourage the patient, meant that they could be dispensed with (*see* References 40, 49, 50). It became increasingly difficult to deny the role of suggestion, of the doctor-patient relationship, upon which ‘everything depends’,<sup>51</sup> and ultimately of the newer psychotherapies.<sup>52,53</sup> As late as 1907 rest cure was practised at the Edinburgh Royal Hospital, but the physicians attributed its efficacy solely to suggestion.<sup>54</sup> Everywhere activity and/or exercise, allied to psychotherapy, began to replace the rest cure<sup>16,53</sup> and instead of sanatoria came the first occupational therapy programmes.<sup>55</sup> Rest cure

vanished, and, with the new, albeit short-lived, era of psychiatric optimism, the whole episode was looked upon with disdain.<sup>56</sup>

What were the consequences of the failures of the simple organic models of both aetiology and treatment? Physicians could either abandon the concept or concede that the patients were best cared for by the psychiatric profession. This happened with alacrity in the United Kingdom (*vide infra*), but, although pleas were made for the same process in the USA (e.g. Ref. 32), the concept was more deeply entrenched there and in France. Many physicians retained the diagnosis (and therefore the patients), but began gradually to incorporate the new psychological insights into their treatments—the ‘rational psychotherapy’ of Paul Dubois being particularly influential.

The rapid abandonment of neurasthenia by British neurologists was because the illness had never found a fertile soil here anyway. Beard himself had a dismal reception when he visited this country in 1880 and 1881, committing one social gaffe after another (*see* Ref. 57).

Furthermore, neurasthenia was never accepted by the neurological establishment. The giants of the profession, such as Gowers, Gordon Holmes, Ferrier, Buzzard and Kinnier-Wilson based at the National Hospital for Nervous Diseases, declared themselves in various ways against an organic view of neurasthenia, and in favour of psychological interpretations (although hospital records reveal they all made the diagnosis with varying degrees of frequency). Such early high prestige opposition was unusual in the USA, and almost unknown in France and Germany. In the UK the neurasthenic flag was flown by only a few—the most prominent being Sir Thomas Allbutt in Cambridge. Even Allbutt had to admit that acceptance was at best grudging—in his eight volume textbook Allbutt chose to write the section on neurasthenia himself,<sup>24</sup> but felt the necessity of criticising those ‘medical men who reject neurasthenia as in part a sham, and in part a figment of complacent physicians’. Despite these efforts a reviewer conceded that neurasthenia had ‘not taken deep root in Britain’.<sup>58</sup>

Issues of class and gender were intimately related to those of aetiology and treatment. The more ‘organic’ the account, the more likely was the author to insist on the predominance of upper social classes, the distinction from hysteria (the ‘disease’ of women), and the over-representation of men and ‘civilised’ races. Neurasthenia had been sustained by the belief that it was a condition of the most successful people in society. ‘It is a disease of bright intel-

lects, its victims are leaders and masters of men, each one a captain of industry'.<sup>59</sup> It was also a disease of male doctors (e.g. Ref. 11, 14), starting with Beard and Mitchell themselves. The importance of the doctor who willingly admitted he had suffered the illness,<sup>44,60</sup> and of the male sufferer in general, should not be underestimated.

However, the preponderance of the male professional classes amongst sufferers began to alter.<sup>16</sup> Charcot was among the first to point this out, and by 1906 a series of papers were produced describing the illness in the working class (e.g. References 61, 62). The records of the Vanderbilt Clinic in New York<sup>63</sup> show that neurasthenia was now mainly a disease of the lower social classes, and, as most of these comprised Jewish immigrants, it could no longer even be called the 'American Disease'. In 1906 Stedman devoted his presidential address to the American Neurological Association<sup>36</sup> to a plea to devote more attention to the need for facilities for the neurasthenic poor, and the illness had become the commonest cause of absenteeism among the garment workers of New York.<sup>64</sup> Cobb<sup>6</sup> noted sardonically that those who continued to believe the disease was restricted to the upper social echelons were those whose commitment was entirely to private practice.

The consequence was the decline of the diagnosis. This was partially intended, as academics dismantled the now overstretched concept. However, as the reception accorded Beard in the journals showed (*vide infra*), academic disdain was not new. It now vanished for more practical reasons. Neurasthenia had survived academic dissatisfaction because it was 'useful to the doctor'<sup>65</sup> as a code for non-psychotic illnesses for which the only effective treatments were psychologically based. The diagnosis was made 'for the comfort of the relatives and peace of mind of the patient'<sup>66</sup> since it avoided the stigma of psychiatric illness and the necessity to seek treatment in an asylum.<sup>44,48</sup> However, as more doctors publicly accepted the new psychological models, this could not continue. Statements such as, 'functional illness means pooh poohed illness'<sup>67</sup> and 'neurotic, neurasthenic, hysterical and hypochondriacal are, on the lips of the majority of clinical teachers, terms of opprobrium'<sup>52</sup> show that the codes were being broken, and the demise of the category a matter of time. In 1868 patients were only too willing to confess to 'weakness of the nerves',<sup>29</sup> but 30 years later the Spectator observed, neurasthenia was no longer 'interesting', it was 'discredited and disgraceful...shameful to confess'.<sup>68</sup> The changes in social class, and the rise of the psychogenic

school, meant that aetiologies had also changed. Infection remained (*vide infra*), but in place of overwork came laziness, fecklessness, degeneration and poor hygiene. Neurasthenia, once almost a badge of honour, was now considerably less praiseworthy—in place of the hard pressed businessman came the stereotype of the work-shy labourer or the pampered hypochondriacal upper class female invalid.<sup>69</sup> Now doctors who had used the rise of neurasthenia as evidence of the advance of both civilisation and medicine made the same observations on its decline—‘the gradual “passing of neurasthenia” is a sign of the times and of the advancement of medical science’.<sup>70</sup>

From its dominant position in the Surgeon General’s Index neurasthenia began to disappear. The space devoted to it in the classic neurological texts dwindled, and finally disappeared, or received a brief psychiatric coverage. The same happened to the effort syndromes (Da Costa’s syndrome, Soldier’s Heart, neurocirculatory asthenia).<sup>71</sup> No figure was more associated with these diagnoses than cardiologist Paul Wood, but by the end of his career he saw them as synonymous with anxiety disorder.<sup>72</sup> Others merged the syndrome with neurasthenia,<sup>73</sup> just as some contemporary researchers merge them with PVFS.<sup>74</sup>

Neurasthenia was replaced mainly by the new psychiatric diagnoses. The symptoms were now listed as psychological—painful fatigue became anhedonia<sup>75</sup> whilst a textbook of anxiety could include the symptom ‘fatigue on slightest exertion’.<sup>76</sup> The greatest beneficiary was the new concept of depression,<sup>16</sup> and, with the support of such figures as Jaspers and Bleuler, the view became widespread that ‘all neurasthenic states are in reality depression,—perhaps minor, attenuated, atypical, masked, but always forms of anxious melancholia’.<sup>77</sup>

General physicians continued to encounter the patient with chronic fatigue, often arising after a variety of insults, including infection. Perhaps mindful of the neurasthenia experience, rather than develop specific nosological entities physicians generally resorted to descriptive labels, such as ‘chronic nervous exhaustion’,<sup>78</sup> ‘tired, weak and toxic’,<sup>79</sup> ‘Fatigue and weakness’<sup>80</sup> or ‘Fatigue and nervousness’.<sup>81</sup> However, the main emphasis was on psychological mechanisms.

In conclusion there were a number of reasons for the decline in neurasthenia. First, the neuropathological basis of the illness was discredited. Second, rest cure was seen either to be unsuccessful, or to be efficacious principally for psychological reasons. Third,



the social class distribution of the illness altered. Finally, the interest and optimism shown by the neurologists was transferred to the new profession of psychiatry.

## EMERGENCE OF POST INFECTIOUS FATIGUE SYNDROMES

Even the first descriptions of neurasthenia included a link with febrile illness. Van Deusen highlighted malaria,<sup>82</sup> since he worked in an area in which the disease was endemic, whilst Beard drew attention to wasting fevers. The latter's descriptions of neurasthenia continue the infective theme—key symptoms included 'general and local chills and flashes of heat'.<sup>14</sup> Van Deusen, an unfashionable alienist in the Midwest, was forgotten, but Beard, an East coast neurologist with a flair for publicity, went on to popularise his illness. The link with infection persisted in the earliest accounts in France,<sup>83</sup> whilst one of the first cases to be treated in this country by the Weir Mitchell regime was a woman with a fourteen year history of neurasthenia, permanently confined to bed in a darkened room, whose illness had begun with a persistent cold.<sup>43</sup>

By 1914 the observation that neurasthenia frequently followed an infection was widely acknowledged. For most, including Osler, Ely, Oppenheim, Cobb, Horder, Clarke, Kraepelin, Althaus, Arndt and others, the principle candidate was influenza, but claims were also made for various alimentary bacteria,<sup>84</sup> typhoid,<sup>14</sup> streptococcus,<sup>85</sup> and even the effects of vaccination.<sup>85</sup>

As the microbiological revolution spread, a post-infective neurasthenic state was linked with each new organism to be described. The clinical evidence of neurasthenic conditions after infection was, however, a two edged sword. Everybody had a favourite culprit, until it was conceded that any infective agent could produce the state of chronic exhaustion,<sup>11,33,86</sup> especially in combination with depression<sup>87</sup> or worry.<sup>20</sup> To a generation schooled on Virchow and Koch this was a major hurdle. As clinical research became less inclined to accept unconfirmed clinical observation, scepticism increased.<sup>88</sup>

The demise of neurasthenia did not end these attempts. However, in the post neurasthenia era such descriptions, for example of the fatigue states arising after hepatitis<sup>89</sup> and schistosomiasis,<sup>90</sup> are noticeable for their psychological flavour, the exception being the literature on post-polio syndrome (*see* Ref. 91). Chronic bru-

cellosis was another common neurasthenic diagnosis in the 1940s and 1950s.<sup>92</sup> However, systematic studies first disproved persistence of the bacteria, and then provided evidence for a high rate of psychiatric illness in those affected. Sufferers were described as combining a high degree of conviction of physical illness with a reluctance to discuss emotional issues.<sup>93</sup> Once this evidence became widely disseminated, chronic brucellosis disappeared.

Why did such efforts continue? The answer was that many attempts to link infective organisms with previously mysterious clinical conditions had reaped dividends. Starting with Reiter's Disease,<sup>94</sup> the list of *bona fide* post infective conditions was growing, especially in the neurological field (*see Ref. 95*). Particularly relevant to the current story were the significant advances made in understanding the condition of postinfectious encephalomyelitis, first described after measles in 1790.<sup>96</sup> An experimental model became available in 1947,<sup>97</sup> providing an animal model, the lack of which was a factor contributing to the disillusionment with neurasthenia.

## CHRONIC FATIGUE SYNDROME AND THE UNITED STATES

In the USA interest in the neurasthenic conditions had virtually disappeared by 1960, until revived by reports linking chronic fatigability with the Epstein Barr virus (EBV),<sup>98</sup> and the term 'chronic Epstein Barr infection' was introduced. The authors had little idea of the consequences—an active campaign resulted that began to (successfully) mandate recognition and research. It did not matter that these papers were later seen as flawed by the authors themselves;<sup>99</sup> once started the process proved unstoppable (*see Ref. 100 for example*), with a 'proliferation of support groups, research foundations dominated by patients with the syndrome, and fund-raising and lobbying groups'.<sup>101</sup>

The professional reaction to the realisation that EBV was not the causative organism was to change the label. In 1988 the term 'chronic fatigue syndrome' (CFS) was introduced in the USA<sup>102</sup> and Australia.<sup>103</sup> This label appears durable, but has been criticised as 'too psychiatric',<sup>104</sup> and the rider 'chronic fatigue and immune deficiency syndrome' has been adopted by the most active of the campaign groups in the USA. This latest title reflects the emergence of the immune system in recent formulations. The relevant research is covered elsewhere (Mowbray, this issue). Such

theories do, however, show a historical continuity. One of the most popular characterisations of neurasthenia was of the body giving way under attack from outside, becoming, as Beard described it, 'overloaded'.<sup>14</sup> Contemporary observers ascribed this overload to the deteriorating quality of life, to new organisms, new stresses, new ways of working, the decline of leisure and the increasingly decadent and acquisitive nature of society (e.g. Refs 14, 20, 33). All of these ideas reappear in the popular current theories of immune disorganisation, in which the new 'overload',<sup>105</sup> is from viruses, pollution, stress and so on. Peter Gay's comment on Victorian views on the aetiology of neurasthenia remain relevant: 'the symptoms of contemporary culture they liked to adduce in proof were, though plausible villains, not easily demonstrated agents of nervousness'.<sup>60</sup>

Theories of immune dysfunction have achieved prominence in the USA, and alleged parallels between CFS and AIDS are frequently drawn by most of the popular books,<sup>106</sup> and the occasional professional.<sup>107</sup> Abbey and Garfinkel have written that, 'just as neurasthenia was a compilation of ideas which captivated the imagination of both public and medical professionals, so too is CFS built upon two of the most interesting themes in modern medicine, infectious disease and immunology'.<sup>2</sup> It is their familiarity, rather than novelty, which has made them so easily accepted, then<sup>26</sup> and now.

Events took a different course in the United Kingdom. Whereas the recent American effort had been directed towards EBV, over here more attention has been devoted to the enterovirus family, starting with the unresolved association between poliovirus and Royal Free Disease. Further interest resulted from the collaboration of Glasgow virologists, Norman Grist and Eleanor Bell, who had played a major role in linking the Coxsackie virus to the pathogenesis of a number of diseases, and Glasgow neuroimmunologist Peter Behan, who was interested in ME. They studied outbreaks of apparent epidemic ME in the West of Scotland, and reported an association with high neutralising antibody titres to Coxsackie virus, to be succeeded by similar findings in sporadic cases. Although the serological tests used are no longer seen as reliable,<sup>108</sup> it served as a spur to further work using more sophisticated techniques (*see* Gow & Behan; Cunningham, Bowles & Archard this issue). Such work represents a break with the past, but continuity is also indicated by other reports, such as the search for a vaccine,<sup>26</sup> the realisation that a number of infective agents

are implicated, alleged restriction to developed societies,<sup>109,110</sup> and the excitement that even rumours of such work continue to generate.

## EPIDEMIC ME AND THE ME EPIDEMIC

Just as neurasthenia highlights the perpetual battle between the organic and the psychological views, so does the story of ME.

'ME' as a specific diagnostic category officially began with 'the events of the momentous year 1955'.<sup>111</sup> In that year a mystery illness struck the nursing and medical staff of the Royal Free and related hospitals in North London.<sup>112</sup> The evidence is discussed in a separate contribution (Jenkins, this issue), but it is this author's opinion that the 'truth' cannot be established. However, it is possible to use the differing accounts of these events as material in their own right.

Two competing schools of thought have developed concerning these episodes. The first is of an encephalitic and myopathic process, contagious in nature, and probably infective in origin.<sup>112</sup> This was termed 'epidemic neuromyasthenia' in the USA, or 'benign myalgic encephalomyelitis'<sup>113</sup> in the UK, a label originally referring to a report<sup>114</sup> of cases admitted in a less explosive fashion to the Royal Free Hospital just before the main outbreak. As described elsewhere (Jenkins, this issue) earlier examples were gradually uncovered stretching back to 1934.<sup>115</sup> Comprehensive reviews were published (e.g. Ref. 116), but little progress was made. There the matter might have rested.

However, in 1970 two psychiatrists published a reanalysis of the inpatient records of the Royal Free outbreak, and reached an opposite conclusion—the illness was contagious, but the contagion was an example of mass hysteria.<sup>117</sup> This suggestion was not new<sup>118</sup>—indeed, similar accounts had been in circulation since the outbreak itself,<sup>119</sup> but McEvedy and Beard provided the most coherent, and the most public, account. It offered a plausible explanation of some, but not all, of the features of these outbreaks. Like the Medical Staff report<sup>112</sup> it could be neither proven nor disproven, since it also suffered from lack of definitive evidence. Nevertheless, the result was a bitter and continuing division. Both accounts now existed side by side, and most observers were forced to credit one or the other, with few suggesting that the question was unsolvable. The *reductio ad absurdum* was reached with the

suggestion that rather than ME being a psychoneurosis, all cases of psychoneurosis were sporadic ME.<sup>120</sup>

Since epidemiological or laboratory data did not resolve the issue, once again the arguments often depended on non medical factors. As before, the fact that the illness affected professionals of apparently impeccable moral stature, 'level headed',<sup>121</sup> 'extrovert types of stable personality'<sup>122</sup> and so on, was used as evidence against a psychiatric origin. The over representation of health workers amongst sufferers from neurasthenia, neuromyasthenia,<sup>123</sup> epidemic ME<sup>116</sup> and sporadic PVFS<sup>109,111</sup> is striking. It is difficult to explain epidemiologically, but it is also of symbolic significance. As with neurasthenia, medical sufferers add to the respectability and organic authenticity of the condition. Even the dead are not immune—renowned historical figures, such as Charles Darwin and Florence Nightingale, are frequently rediagnosed as early cases of ME for the same purpose.

Meanwhile, the nature of the illness was changing. In 1976 a group of doctors, including both sufferers and those involved in the Royal Free outbreak, formed a study group, and were instrumental in organising a symposium at the Royal Society of Medicine.<sup>112</sup> Epidemic ME remained the dominant concern, but few new outbreaks were appearing for further study, and of those that did, altered medical perception, rather than a true increase in rates, was soon added to the list of explanations.<sup>124</sup> Attention gradually shifted to sporadic cases.<sup>123</sup> This was assisted by the founding of a patient self-help organization and the accompanying media attention.<sup>125</sup> The result, largely unnoticed, was a gradual, but profound, change in the character of the illness. In the index episodes neurological signs, of whatever aetiology, were recorded in the majority, and were divided into cerebral, brainstem and spinal<sup>126</sup> (as in the first series of neurasthenic texts). These were not found in sporadic cases.<sup>112</sup> Instead, persistent severe fatigability, not prominent in epidemics,<sup>126,127</sup> increased in importance in sporadic cases to become the hallmark of the disease. Contagion disappeared, but the prognosis worsened.

By the end of the 1980s sporadic ME was itself an epidemic. An article in the Observer<sup>128</sup> was followed by 14,000 requests for a fact sheet, and the ME Association became Britain's fastest growing charity.<sup>126</sup> There were two possible reasons for this growth. Media coverage of ME became linked to other themes: dissatisfaction with the ideas and practice of orthodox medicine, and popular conditions like multiple allergy and candidiasis. How-

ever, neither development was likely to attract professional support. This required serious research, which appeared from the Glasgow group, and a team at St Mary's Hospital Medical School. Their technical findings are covered elsewhere—but their additional significance lay in the respectability given to the condition.

A parallel with neurasthenia can also be observed in the progression of aetiological paradigms advanced for ME. Early attention was given to neuromuscular explanations of fatigability, supported by reports of abnormalities on a variety of sophisticated tests (*see* Miller & Jamal, this issue). However, as with neurasthenia, further work led to objections being raised (*see* Edwards, Newham, Peters, this issue). Attention then switched from muscle to brain,<sup>129</sup> and at the time this was written, a variety of subtle changes in the central nervous system are being demonstrated by sophisticated techniques. Time alone will tell whether these will prove more durable than their predecessors. Finally, no one will be surprised to learn that the third paradigm, the 'psychological', should also appear (*see* David, this issue). Once again the wheel has turned from peripheral, via central, to psychological explanations.

Like CFS, ME also became identified both as a political and a medical problem, especially when considering the contributions made by such conditions as candidiasis, hypoglycaemia, total allergy syndrome and so on. For many ME is often grouped with, and shares the characteristics of, these latter illnesses<sup>130</sup>. It is alleged that all are not recognised by doctors, being instead falsely labelled as psychological. They are held to be consequences of factors such as stress, pollution, poor diet etc, but triggered by allergy, toxin or virus. Finally, there is an extreme opinion that professionals are involved in a conspiracy to deny all the above.<sup>131</sup> Another common feature of CFS/ME is the emergence of active self-help groups, which, despite a profound interest in medical science, may also convey certain beliefs that baffle many professionals.

## DISSENT AND DISMISSAL

The consequences of hypotheses of a hysterical origin to ME were similar to the consequences of the psychogenic explanations of neurasthenia. Buzzard<sup>132</sup> had warned that although the advances in both neurology and psychiatry had illuminated the plight of

the neurasthenic, the same could not be said of the exclusively psychogenic theories, which would lead to a polarisation among doctors.

'On the contrary, Freudian doctrines have produced a reaction in the minds of medical men which has taken the form of a desire to ascribe all mental disorders, including neurasthenia, to some physical or chemical agent the result of disturbed glandular secretions, of septic tonsils or teeth, of intestinal stasis or infection, or of a blood pressure which is too high or too low'

Buzzard was right. Before the acceptance of the psychogenic paradigm neurasthenia served a purpose—'At a time when physicians felt comfortable only with clearly organic disorders, a diagnosis of neurasthenia permitted some to address themselves to tangible clinical issues and to provide an essentially psychological therapy under a somatic label'.<sup>44</sup> With the rise of the psychogenic school, this ability, acquired by physicians with difficulty, was lost. For a time the good physician now 'wanted to study all sides of the question',<sup>30</sup> which meant attention to emotional issues, but 'without overlooking the possibilities of infective and organic factors'. Conversely, the informed psychiatrist also accepted the possible role of organic factors, hence Tredgold<sup>133</sup> doubts the existence of a structural basis to neurasthenia, but accepts the probable role of a cerebral 'bio-chemical' abnormality.

However, the introduction of psychoanalysis to the USA, with its exclusive emphasis on mental origins, ended this appropriately labelled 'holistic' approach.<sup>134</sup> Narrow somaticism had failed, but in its place came 'belligerent Freudianism',<sup>52</sup> as illustrated by statements such as 'there is only one certain cure for neurasthenia—viz psychoanalysis'.<sup>38</sup> Ironically, this treatment attracted criticisms reminiscent of those of the rest cure, namely questionable efficacy, but unquestionable expense.<sup>52,65,131</sup>

Paradoxically, it was the solely psychological explanations in the new 'official' consensus on neurasthenia that ensured the survival of a contradictory view familiar to Beard and Mitchell. One reason was financial—AJ Cronin, working in fashionable London in the 1920s, described the good living to be made out of treating society ladies for the illness (his use of intramuscular injections of trace elements is once again topical);<sup>135</sup> whilst American neurologists were particularly reluctant to abandon it—as late as 1927 Adolf Meyer was writing to Abraham Flexner complaining that neurologists continued to see neurasthenics in their clinics, although it was psychiatrists who had the necessary training.<sup>136</sup>

However, as important was the rejection by sympathetic physicians of what they perceived as the implications of the now ascendant psychological views.

The result was that despite the obituaries, and the consignment of the condition to the 'garbage can'<sup>137</sup> or 'waste basket',<sup>37</sup> neurasthenia survived. 'Everywhere we meet with the statements that, 'it is rare ... yet no name is more often on the lips of both our profession and the laity'.<sup>87</sup> Buzzard<sup>132</sup> noted with regret that although he felt that most of the patients referred to him were depressed, nearly all came with a label of neurasthenia. Brill<sup>138</sup> commented 'in spite of all that was said and done about the inadequacy of the name, as well as the concept itself, neurasthenia is still very popular with the medical profession'.

The same processes can be identified in PVFS/ME. On the one hand is the tendency to dismiss the symptoms as 'all in the mind'. On the other is the opposite reaction of ignoring any possibility of psychological disturbance, whilst indignation with the implications of a psychiatric label remains a motive for many professionals involved in ME. These apparently opposing views have much in common, since both are based on the premise that psychological illness is either imaginary or trivial, and does not merit the sympathy and attention given to real, organic illness. The difference is simply the status to be accorded ME/PVFS. Thus proponents of these illnesses often endorse a division into real and imaginary, but energetically refute the idea that neurasthenia is 'basically psychiatric, almost imaginary in nature',<sup>35</sup> or that the fatigue in ME is not 'central (in the mind) but peripheral (in the muscle)'.<sup>138</sup> Attitudes are more extreme in non professionals—commenting on the avalanche of mail that greeted one cautious radio journey by a psychiatrist into this field, an observer wrote 'the reaction confirmed ME not as a vanguard of the new virology, but as a bastion of anti-psychiatric prejudice'.<sup>139</sup>

Although obituaries of Cartesian dualism are frequent, the controversy surrounding ME proves dualism to be alive and well. Some have blamed McEvedy and Beard (or all the psychiatric profession) for reinforcing this dichotomy, but this tendency was always present. The journalist who observed in 1894 that, 'The majority of sufferers have better reason to complain of the weakening of their moral fibres than of either their mental or physical ones',<sup>68</sup> gave expression to a common reaction.

Dissent is one of the main themes of this chapter. Non-believers have consistently attacked the gullibility of those who willingly



accepted neurasthenia (or latterly ME) *in toto*—the reviews that greeted Beard's books between 1880 and 1882 are extraordinarily vituperative.<sup>140</sup> In return believers gave as good as they got—Weir Mitchell once reacted to a copy of Freud by saying 'Throw that nonsense on the fire'.<sup>141</sup> The accounts of the *Congrès des Médecin Alienists et Neurologist de France*<sup>142</sup> (in which such figures as Bernheim, Dubois and Déjérine argued against well known organicists, such as De Fleury and Hartenburg), the American Neurological Association on numerous occasions between 1880 and 1914, the American Medical Association in 1944<sup>81</sup> and so on, follow a similar pattern, and will be familiar to those who have attended recent meetings on CFS/ME. Disputes also split the two camps—on the one hand Dubois and Déjérine devote much space to criticising Bernheim and Freud (and vice versa), whilst on the organic side the arguments between Althaus and Arndt, and between Beard and Hammond, about the nature of the pathology were even more ill tempered. Doctors have always disagreed about chronic fatigue and show little signs of ceasing to do so.

After dissent came dismissal, as the personal scorn about which Beard and Mitchell so often complained became transferred to the patients themselves. Clark<sup>143</sup> called neurasthenics, 'always ailing, seldom ill'—whilst the 'wealthy neurasthenic will be a useless, frivolous, noxious element of society'.<sup>144</sup> Charles Beevor<sup>145</sup> joined Clifford Allbutt in reminding doctors that, 'on no account should the patient's symptoms be laughed at', but it was to little avail. At the Johns Hopkins Hospital 'the neurasthenic patient is treated by physicians ... with ridicule or a contemptuous summing up of his case in the phrase "there is nothing the matter, he is only nervous"'.<sup>146</sup> In the USA Jelliffe, then a neurologist but later a famous psychoanalyst, described them as 'purely mental cases. Laziness, indifference, weakness of mind and supersensitiveness characterise them all. They are ... ill because of lack of moral courage'.<sup>147</sup> Even those sympathetic to neurasthenics could not avoid a note of irritation and condescension. Patients were 'the terror of the busy physician',<sup>19</sup> 'occupied by their symptoms beyond reason',<sup>11</sup> going from physician to physician,<sup>14,20</sup> where they 'write down their sensations in long memoranda which they hasten to read and to explain'.<sup>11</sup>

## CONCLUSION

The story of PVFS is not only a story of increasing scientific insights into the relationship between micro-organisms and dis-

ease, but also of how doctors view patients, and also those grey, uncomfortable conditions that lie somewhere between the known and the unknown, the mind and the brain.

## ACKNOWLEDGEMENTS

Support was received during the preparation of this essay by a Wellcome Training Fellowship in Epidemiology. I am also grateful to Peter Behan, Bonnie Blustein and Ned Shorter for pointing out important references.

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