

# Psychiatry in the allergy clinic: the nature and management of patients with non-allergic symptoms

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## Summary

Patients with multiple unexplained somatic symptoms attributed to allergy frequently present to physicians and often the physician fails to find evidence for allergic or immunological mechanisms underlying the presenting symptoms. This article discusses the social and cultural background to this disorder. We then consider current explanatory models for symptoms and finally, we consider appropriate management, starting with the initial consultation, the identification of psychiatric disorders when present, and concluding with suggestions for subsequent treatment and guidance on appropriate referral.

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## Part I: Social, cultural and psychological aspects of non-allergic symptoms in the allergy clinic

### Introduction

Many doctors, particularly immunologists and general practitioners, are frequently consulted by patients with persistent unexplained symptoms attributed to allergy or chemical sensitivity for which the doctor is unable to verify an allergic or immunological mechanism. When such patients are told there is no evidence of any underlying immunological or allergic cause, they can prove difficult to manage if they persist in their demands for treatment for their 'allergies', despite the lack of any evidence of the effectiveness of conventional allergic or immunological treatment [1–3]. Doctors may feel unclear about the underlying causes themselves, suspecting psychological problems but not knowing how to categorize them or who should treat them. As a result the patients leave the consultation feeling misunderstood and dissatisfied with conventional medicine.

This article addresses these issues so that physicians know how to manage such patients at the initial consultation, identify psychiatric diagnoses when present, initiate treatment, and make subsequent referrals that both the patient and the physician feel are appropriate.

The psychological consequences of physical illness are not discussed in detail, although some of the issues concerning recognition and management will remain relevant. Neither do we discuss the clinical and laboratory investigation of possible allergic symptoms. We assume that the readership of this journal will concur with the view that 'the importance of using appropriate diagnostic measures to evaluate food hypersensitivity cannot be over-estimated' [4]. How this should be performed is beyond our competence. This paper begins once these investigations have been performed and found not to explain symptoms.

### New allergy diseases

Epidemiological research has found a large discrepancy between the high prevalence of self-perception of allergy in the general population and the very low prevalence of allergy detected by objective methods. For example, a 7% prevalence of perceived allergy to food additives was found in a study of 30 000 people in High Wycombe but the prevalence of allergies detected by double-blind challenge was 0.023% [5]. A further study from the same group confirmed this discrepancy for food intolerance though the discrepancy between the prevalence of complaints of food intolerance (20.4%) and the prevalence of positive reactions on food challenge (1.4–1.8%) was less [6]. The vast majority of those claiming penicillin allergy are in fact not allergic to penicillin [7]. Nearly

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all students in an American college believed that hyperactivity is caused by sugar, and that depression and fatigue were also a result of food allergy [8]. Sixteen per cent of those responding to a large US household survey claimed to suffer food allergy [9].

A small proportion of those who believe they have allergies develop symptoms to numerous environmental substances, such as foods and their additives, and chemicals. In some cases patients claim allergy to almost all of the environmental products of the Western world and have attracted diagnoses such as total allergy syndrome, multiple chemical sensitivity or environmental illness. These diagnoses were first proposed in the 1950s and '60s and have increased in popularity as concerns about the state of the environment have grown.

The illness is usually sporadic but epidemics have been described [10]. Such epidemics overlap with the related subject of mass psychogenic illnesses, a term which has partly replaced the unsatisfactory label of mass hysteria, since both describe groups of people working within the same building where an environmental trigger is associated with non-specific physical and psychological symptoms that persist even after the individual's removal from the building [11].

The epidemiology of environmental illness is largely unknown, partly because of difficulties in case definition and the confusion between an illness belief, usually self-diagnosed, and a reproducible, reliable, exclusive case definition [12]. As such it is reminiscent of the difficulties encountered in distinguishing between the epidemiology of myalgic encephalomyelitis (ME), a belief, and chronic fatigue syndrome, an operationally defined syndrome [13].

What little is known is intriguing. There is an over-representation of females and of patients of the upper socio-economic class [14]. Multiple chemical sensitivity is not associated with those branches of industry responsible for most other occupational chemical and physical illnesses [15]. In the community, chemical sensitivity remains associated with being female, with a weak association with hay fever but not with a history of asthma [16].

Orthodox physicians have found no consistent physical or immunological abnormalities to explain the multiple symptoms these patients experience [14, 17] and few patients react consistently when tested by double-blind challenge to the substances in question [10, 17]. Nevertheless, patients often undergo large numbers of medical investigations in an attempt to reassure both patient and doctor that an organic diagnosis has not been missed; large amounts of resources are consumed in the process, but the only result is that patients may become increasingly dissatisfied with conventional medicine.

Eventually patients turn to alternative practitioners,

particularly clinical ecologists who use new and controversial methods of diagnosis including Vega test (electrical testing), the Miller technique (provocation-neutralization) and hair analysis. Many treatments involve avoidance of substances thought to precipitate symptoms and can include extreme isolation from the environment. Enzyme potentiated desensitization is often encountered. Terr [14] documented the treatments prescribed by clinical ecologists for 50 such patients, and found that 28% had been advised to move to rural areas, 74% were given special diets and 62% were given 'neutralizing antigens'. Sound studies are lacking, but it appears that patients' lives are being severely restricted by such treatments.

One intriguing aspect of the new allergy diseases is their overlap with other so-called modern diseases. In some severe cases the symptoms of those claiming environmental sensitivity overlap with disorders as chronic fatigue syndrome (CFS) [18], myalgic encephalomyelitis (ME) [19], seasonal affective disorder [20], hypoglycaemia [21], sick building syndrome [22] and candida infection [23]. Some patients can move from one diagnosis to another, or indeed adhere to several disease concepts simultaneously. Stewart [24] demonstrated that of a sample of 50 patients with environmental illness, 90% believed they had suffered from at least one or more other media popularized condition, although the specific attribution of aetiologies had changed with time.

### Psychiatric disorder and environmental illness

Psychiatric research has demonstrated a high prevalence of psychiatric disorder in patients with 'environmental illness'. For example, Black *et al.* [25] found that 65% of patients who had received a diagnosis of environmental illness from a clinical ecologist fulfilled criteria for current or past mood, anxiety or somatoform disorders compared with only 28% of a community sample of controls. This and other similar studies may be atypical since the subjects agreed to be interviewed by psychiatrists and were often recruited from a liaison psychiatry service or from patients seeking compensation from their workplace.

Simon *et al.* [17] overcame some of these difficulties by recruiting patients from a community allergist's clinic. The results remained consistent with previous work — subjects showed significantly higher levels of psychological morbidity on all measures of depression, anxiety and somatization compared with a medically ill control group recruited from clinics for musculoskeletal injuries. Many other psychiatric disorders have also been identified in these patients including schizophrenia [26],

hyperventilation syndrome [27], anorexia nervosa [28] and post-traumatic stress disorder [29].

Studies have shown that there is often a history of long-standing psychological problems and somatic symptoms years before exposure to offending substances [30]. A history of psychiatric morbidity predating the onset of sensitivity to chemicals has been found to be a strong predictor of the development of multiple chemical sensitivity, as has the number of prior medically unexplained symptoms [10, 17]. These studies suggest that psychological factors are of aetiological relevance in the development of these syndromes although they do not in themselves explain fully the overlap between psychiatric disorder and the new allergy illnesses.

Those who advocate environmental explanations for these and other findings sometimes accept the clinical observations of increased rates of psychological distress, but argue that such symptoms should be considered as further evidence of environmental sensitivity — the psychological disorder as a consequence of allergic mechanisms. Various models have been suggested over the years; modern theories have included sub-threshold stimulation of limbic structures within the central nervous system [31] or imbalance between central nervous system neurotransmitter systems [32]. However, it is still necessary to prove consistent abnormalities of immune dysfunction before it can be argued that these are the cause of any observed psychological morbidity.

A variant of the same theme is to suggest a link between atopic vulnerability and psychological disorder. There is equivocal evidence to suggest that there is an increased rate of atopic symptoms in depressed patients. Bell *et al.* [16] found an association, in a US student sample, between self-rated depression and asthma, whilst those who had been treated for depression rated themselves as more allergic on a number of measures. However, self-reporting of depression did not correlate with the presence or absence of allergic symptoms, suggesting that the effect may be related to help seeking behaviour. Weak evidence was also provided by a 15 year follow-up of subjects enrolled in an American Health Maintenance Organization (HMO). Psychological distress and malaise at the start of the study was associated with a modest increase in so-called 'hyper-immune' conditions (an odd collection including asthma, allergy, hay fever, osteoarthritis and autoimmune diseases) 15 years later [33]. On the other hand a German study found little difference in the prevalence of atopic disorders between depressed patients and normal controls [34]. A Swiss population survey found that subjects with depression were no more likely to report subjective symptoms of 'allergy' or to consider themselves 'allergic', but the patients were more

likely to report a range of somatic symptoms [35]. Overall, the epidemiological links between mood and clinical allergy are weak (in contrast to the links between mood and immune function), and there is no sound evidence linking environmental sensitivities or intolerance with the development of psychological disorder. This contrasts with the strong links between psychological disorder and medically unexplained somatic symptoms.

In conclusion, those working in allergy clinics can expect to find high rates of psychological disorder in patients whose unusually strong beliefs of an allergic basis to distress are not confirmed by clinical investigation. These patient populations recruited from clinics and the environmental illness subculture do not, however, appear to be typical of people in the community who perceive symptoms to be related to allergy; concerns about food intolerance, for example, are common but most people are prepared to entertain other possible causes for their symptoms and do not have high levels of psychiatric morbidity. In a non-clinical sample a history of symptoms in response to certain chemicals had only a weak association with psychological morbidity [36]. Hence, those who consult physicians are a subgroup of patients who can be expected to show unusually strong beliefs about the nature of their symptoms, associated with a high prevalence of psychiatric disorder.

### A simple guide to somatization

It is now known that most patients with diagnosable psychiatric disorders seen in general practice or general medical settings do not seek help for psychological problems, but for physical symptoms. These symptoms cannot be explained by physical illness (even if they are associated with physical illness). Physical symptoms without an obvious biomedical cause are common and benign, but there are some patients who continue to suffer medically unexplained symptoms and disability despite reassurance and repeated negative medical investigations [37].

Some of these patients are clearly suffering from specific psychiatric disorders such as depression or anxiety. Others may have 'somatoform disorders' (Table 1), the main feature of which is persistence of physical symptoms together with repeated requests for medical investigations despite medical reassurance that symptoms are not the result of organic pathology. These patients typically resist any attempt to discuss the possibility of a psychological cause. There are many types of somatoform disorder, which are discussed below, but all involve somatization — the process by which people with psychological disorders present in non-mental health settings with somatic symptoms.

Table 1

| Disorder                   | Definition  |
|----------------------------|---|
| Somatoform disorders       | Physical symptoms with no organic cause; symptoms linked to psychological factors   |
| - Conversion disorder      | Alteration/loss of physical functioning unconsciously produced expressing a psychological conflict or need  |
| - Hypochondriasis          | Persistent preoccupation with a fear of having, or belief that one has, a serious disease despite medical reassurance   |
| - Somatization disorder    | Recurrent and multiple somatic complaints of several years duration for which medical attention is sought; begins before age 30; chronic but fluctuating course |
| - Somatoform pain disorder | Preoccupation with pain in absence of adequate physical findings to account for pain or its intensity   |
| Factitious disorders       | Physical (as in Munchausen's syndrome) or psychological symptoms intentionally produced or feigned  |

Somatization has been defined as follows [38]: the patient seeks help for physical complaints, these complaints are not attributed to a psychological cause, a psychiatric disorder can be diagnosed and treatment of the psychiatric disorder would improve the physical symptoms. Some doubts have been expressed about the fourth criteria, but overall the concept is a useful one.

Many doctors are confused about the differences between the process of somatization and the various types of somatoform disorder, such as hypochondriasis, somatization disorder, hysteria and Munchausen's syndrome (see Table 1). First, the differences between factitious disorders and somatization disorders must be emphasized. There are very few instances where patients consciously deceive doctors by inventing symptoms. Munchausen's is one well known, but rare, syndrome; malingering is another. Before either can be diagnosed it is essential for the clinician to be certain that the patient is making a conscious effort to report non-existent symptoms or mimic physical signs. If no obvious motive can be ascribed, then a diagnosis of Munchausen's is appropriate. If an obvious motive is apparent, then malingering may be present. In practice this happens only in unusual circumstances, such as military medicine, medico-legal practice or prison

psychiatry. Somatization is entirely different — the patient experiences all too real symptoms, although their explanation for them differs from that of the doctor's.

Hysteria, or conversion disorder, is an alteration or loss of physical functioning that suggests a physical disorder but is instead an expression of a psychological conflict or need. The symptoms are not consciously produced and are not explained by physical disorder. Classical conversion symptoms are those that are suggestive of the patient's idea of neurological disease, e.g. paralysis, amnesia, tunnel vision, seizures, aphonia, etc. Hypochondriasis on the other hand describes a persistent preoccupation with the possibility of serious illness which persists despite medical reassurance — hence the sufferer worries about the presence of specific diseases, such as cancer or AIDS, as an explanation for their symptoms. It can be likened to a phobia of illness.

Somatization disorder, previously known as Briquet's syndrome, refers to a chronic illness in which the subject experiences recurrent, multiple physical symptoms with an onset before the age of 30, and an apparent link to psychosocial or psychological distress. Although largely a disease of women, it is also found in men [39]. Somatization disorder is a recognizable and useful clinical syndrome. Sufferers have long histories of

unhelpful medical and surgical admissions with high rates of disability, yet consume vast amounts of health service resources for little benefit [40,41]. The prognosis is poor.

In its fully fledged form, somatization disorder, like multiple chemical sensitivity, is rare in the population, with a prevalence of less than 0.1%, although it is nearly 100 times more common in the general medical clinic, being present in 8% of new attenders [42]. Of more epidemiological and public health importance are those subjects with somatic distress and medically unexplained symptoms, but insufficient symptoms to justify a diagnosis of somatization disorder. In contrast to the full syndrome these conditions, termed 'abridged somatization disorder', are extremely common, and are still associated with disability and increased use of medical resources [43]. These probably account for a substantial proportion of new referrals to any medical clinic — between a quarter and a half of new patients attending medical clinics do not have an organic explanation for their symptoms — either receiving no diagnosis, or one of a ill-defined and overlapping syndromes, such as fibromyalgia, irritable bowel syndrome or chronic fatigue syndrome [44], in which there is more evidence of disorders in function than structure.

What about the relationship between symptoms and psychiatric disorder in general? The risk of psychiatric disorder is known to increase linearly with the number of symptoms with which patients present [45]. A linear relationship exists between the number and severity of specific somatic symptoms, such as fatigue, pain and myalgia, and psychological distress [46–48]. Patients with psychiatric disorders such as depression have a considerably increased prevalence of most somatic symptoms. Most pertinent of all are changes in sleep and energy levels [49].

### How do medically unexplained somatic symptoms develop?

The awareness and reporting of somatic symptoms occurs as the result of an interaction between a number of different psychological and physiological factors [50,51]. There has been considerable work on the role of perception and awareness of somatic sensations. Somatic amplification — a tendency to increased awareness of the normal bodily sensations that are part of health — has been suggested as an important personality style. This awareness of bodily sensations can be increased in unstimulating environments such as uninteresting work environments [52]. The same processes will be further exaggerated in the presence of somatic symptoms arising out of a psychological disorders such as depression and anxiety. Other possible personality

factors include neuroticism [51] and a reluctance to accept psychological problems [53]. Genuine fear of severe illness is also common [54].

Behavioural avoidance is an underlying theme of psychological explanations for these otherwise unexplained syndromes and can explain why symptoms persist after withdrawal of the offending stimulus. Current definitions of occupational exposure syndromes emphasize that for symptoms to be definitely linked to environmental exposure this should not happen — in true environmentally determined syndromes symptoms should usually resolve after withdrawal of the incitant exposure [55], although exceptions can be found.

One specific mechanism that may be involved in the development of 'allergic' symptoms is that of classical conditioning [56]. Patients who are exposed to toxic substances with an odour, e.g. petrol, perfumes or smoke and who develop physical symptoms at the same time may then, by classical conditioning and stimulus generalization, experience recurrent physical symptoms in response to other frequently encountered substances that have an odour. This model has been criticized [57] — particularly for the need for a salient odour and the lack of extinction over time — but these can be explained by modern cognitive models of psychological conditioning, in which more attention is given to the role of a person's knowledge, beliefs and expectancies. One example occurs in the setting of 'provocation-neutralization' testing, when practitioners may evoke symptoms (pain at the injection site, or somatic symptoms of anxiety) whilst reinforcing the belief that these symptoms are proof of 'allergy'. It is our opinion that behavioural avoidance, such as occurs in the development of classical phobia and panic disorder, is of considerable importance in understanding how the new 'allergy' syndromes develop. It is also curious how close these explanations are to those advanced in the lay literature—for example, one model for chemical sensitivity in the self-help literature suggests that avoidance of allergen leads to temporary improvement, but at the expense of increased symptoms developing on re-exposure [58]. What keeps them going may be partly the consequences, both physical and psychological, of avoidance behaviour, and partly the shared explanatory system of patient and practitioner. The latter reinterprets the patient's various symptoms according to their own specific illness model (food sensitivity, candida, intestinal toxicity), which must also correspond with the general illness view's of the patient (who may share a general concern about the state of the environment, a dislike of 'orthodox' drugs, and so on.) The relationship between therapist and patient may be akin to the strong relationship that develops between

a psychotherapist and patient, and allows the same construction of a jointly acceptable disease narrative/explanation.

Early experience also plays a role. Adult somatizers come from families where, as children, differential attention was given to physical symptoms, e.g. the child kept off school with abdominal pain caused by anxiety. There is a growing body of evidence to suggest that adult somatizers are particularly likely to have been exposed to illness in the family in childhood and to have had more illnesses as children associated with a lack of parental care [59], and to have experienced their parents as being highly likely to call a doctor in response to these illnesses [60]. Parents may reinforce their children's somatic complaints, with frequent visits to the doctor for minor ailments, at the expense of communication of emotional states and distress [51, 60]. The history may contain pointers such as a previous diagnosis of 'grumbling appendix' or 'irritable colitis'.

Turning to physiological processes, many somatic symptoms reported by patients do have an observable physiological basis. Sharpe and Bass [61] have drawn attention to several such mechanisms, including high levels of automatic arousal as occurs in anxiety and emotional stress (producing palpitations, sweating, dry mouth, lightheadedness, epigastric discomfort, etc.), muscle tension causing fatigue and pain, hyperventilation (which is associated with symptoms of breathlessness, chest pain, paraesthesiae, oesophageal spasm, etc.), physical inactivity which can cause postural hypotension and muscle wasting, and poor sleep which leads to low mood, fatigue, aches and subjective abnormalities of thermoregulation. Individuals may react to these phenomena in a variety of ways, e.g. they may avoid exercise if they feel fatigued as a result of poor sleep, so that chronic underactivity then adds to their experience of fatigue and muscle aches. Avoidance can therefore be involved in the maintenance and worsening of symptoms, as it can in models of chronic pain [62] and chronic fatigue [63].

### **The social reasons for somatization**

The stigma placed on psychiatric disorder in our culture plays a major part in somatization. It may appear more acceptable to attribute allergy as the cause of symptoms than psychological problems which many people believe involves personal culpability. Attribution of unexplained symptoms to a 'virus', as happens in most patients with the label of postviral fatigue or ME, may thus preserve self-esteem and protect against the stigma of psychiatric disorder [64]. In Hutchesson and Volans' [65] series of patients referred to a National Poisons Unit with unsubstantiated complaints of being poisoned, misattribution

of the somatic symptoms of psychological disorder to mystery toxins was common and may have served the same purpose.

The relatively new allergic diseases appear to be a variant of the somatization disorder where 'allergy' to modern substances reflects the general public's concern for the environment. These total allergy syndromes are akin to culture bound syndromes afflicting modern developed societies where sufferers from unexplained symptoms no longer see themselves as possessed by devils or spirits but instead by gases, toxins and viruses [66]. One example is the change in the nature of beliefs of those who fall victim to contagious episodes of emotional distress (so-called mass hysteria). Recent examples have included complaints of toxic gases [67], electric shocks [68], solvents [69], air pollution [70] and pesticides [71]. Another is the changing nature of beliefs of individual patients, acquired from diffuse cultural and media sources. Guy's Poisons Unit reports that it is only in the last decade that they have started to see patients with physical symptoms misattributed to chronic poisoning [65]. Similarly, patients with chronic fatigue and multiple systemic symptoms attribute their symptoms to ME or chronic candidiasis (although such syndromes are far from new [72]).

Many will have noted the atmosphere of conflict and controversy that surrounds these new diagnoses. This is seen in the often polemical nature of popular writings on the subject, and in the frequently difficult nature of the consultation between patients and their conventionally trained doctors. Doctors themselves play a part in the development of somatization disorders. It is not just the patient who believes that psychological symptoms are less worthy of attention and respect than physical ones—many doctors do as well. Doctors may thus pay selective attention to physical symptoms, and inhibit the patient from revealing psychological distress.

## **Part II: Practical issues in the recognition and management of psychological disorders in the allergy clinic**

### **Recognition of psychiatric disorders**

Disorders such as anxiety or depression are common. Whereas about 15–20% of patients with organic disease also have symptoms of depression or anxiety, the figure rises to 50% for those without clear evidence of organic disease. Clinically it is also known that the same factors that predict psychiatric illness in the normal population, such as low social support, previous psychiatric history and current social problems are as relevant in the medical setting [74]. It is important to recall that the peak age of

**Table 2.** Quick scale for diagnosing anxiety and depression in general medical settings (reprinted with modifications from [92]; permission granted)

**A. Anxiety scale**

(Score one point for each 'Yes').

1. Have you felt keyed up, on edge?
2. Have you been worrying a lot?
3. Have you been irritable?
4. Have you had difficulty relaxing?  
(If 'yes' to any one of the above, go on to ask:)
5. Have you been sleeping poorly?
6. Have you had headaches or neck aches or tightness in head?
7. Have you had any of the following:  
trembling, tingling, dizzy spells,  
sweating, frequency, diarrhoea?
8. Have you been worried about your health?
9. Have you had difficulty falling asleep?

**B. Depression scale**

(Score one point for each 'Yes').

1. Have you suffered low energy levels?
2. Have you suffered loss of interest?
3. Have you lost confidence in yourself?
4. Have you felt hopeless?  
(If 'yes' to any one of the above, go on to ask:)
5. Have you had any difficulty concentrating?
6. Have you lost weight (due to poor appetite)?
7. Have you been waking up early?
8. Have you felt slowed up?
9. Have you tended to feel worse in the morning?

**Interpretation**

1 point for each positive answer. Add anxiety score; add depression score. Patients with anxiety states usually score at least 4 on the Anxiety scale; patients with depression score at least 4 on the Depression scale.

ence of panic. Physicians should be alert to the presence of paroxysmal episodes of symptoms, which involve a combination of physical symptoms (palpitations, dizziness, choking, sweating, nausea) and psychological symptoms (tension, fear). It is useful to ask what the patient is thinking about during an attack — fears of choking, collapse, and loss of control are common, and reinforce the anxiety related symptoms in a vicious circle.

Confusion can sometimes arise between the physical symptoms of depression and those of physical illness, especially in the medical setting. In the presence of organic disease, weight loss, poor sleep and loss of appetite have less discriminatory power in the detection of depression. More emphasis should be placed on loss of interest, low self-esteem, irritability and suicidal ideas. However, in the absence of verifiable organic disease, unexplained weight loss, anorexia, poor sleep, pain and exhaustion all indicate a high risk of mood disorder. Classic psychiatric tests emphasize the importance of early morning waking and weight loss in severe depression but less severe illnesses are more commonly characterized by increased weight, appetite and sleep. A simple check list to help diagnose depression and anxiety in the general medical setting is included (Table 2).

Although we have emphasized that a few patients are reluctant to accept that symptoms might be of behavioural or psychological origin, which can render management difficult, certain attitudes and behaviours of the doctor can also reduce the detection of psychiatric disorder—these include negative attitudes towards psychiatric patients, personal discomfort in dealing with emotional distress, and the belief that only biomedical illness is the concern of the physician. Many doctors use a variety of strategies to actively avoid detecting psychological distress [75].

**Why recognize psychiatric disorders?**

Depressive symptoms, even in the absence of depressive disorder, are associated with impaired functioning either comparable to, or in excess of, those found in most medical conditions [76]. Depressed patients spend more days in bed than those with either arthritis or diabetes [76]. It is therefore important to ensure that disorders that cause such high levels of disability are diagnosed so that they can be treated and suffering alleviated.

When a psychiatric disorder is not recognized, patients are often investigated extensively for organic disease. There are hazards in these inappropriate investigations as patients' beliefs in organic pathology are reinforced [37], some investigations may lead to iatrogenic medical problems and appropriate treatment is delayed.

onset of major depressive order is in the 30s and 40s — hence many illnesses will arise in those without a previous history.

In a sample of medical outpatients the best discriminant of mood disorder was panic and depressed mood, with additional accuracy being provided by the presence of anxiety, social withdrawal, lack of confidence, insomnia and low energy levels. Panic and low mood alone have a 92% sensitivity [74]. Individuals with a depressive illness may also have a loss of interest and enjoyment, diminished activity, poor concentration, poor appetite, weight loss and constipation. In addition patients often describe feelings of hopelessness, a lack of plans for the future and ideas of suicide.

Particularly suggestive of psychiatric disorder, although not specific to any one diagnosis, is the pres-

### How can the physician manage these patients?

Most patients who present with somatic symptoms not explained by organic disease do not conceal symptoms of psychological distress, but instead have chosen to emphasize their physical symptoms for a variety of understandable reasons. If the doctor asks the appropriate questions, psychologically relevant symptoms are readily admitted, and the patient is able, in the current jargon, to 'make the link' between physical and emotional symptoms. However, we will devote most of our attention not to this group, but to those who are reluctant to accept the link, or in whom such a link is hard to find, although very strongly suspected. These present the greatest difficulties in management for the specialist.

Patients are likely to consult allergists and immunologists for verification of their beliefs in allergy as the cause of their symptoms. It may become increasingly apparent to the doctor consulted that there is no underlying organic cause. The doctor may suggest that there is nothing physically wrong with the patient and initiate a referral to a psychiatrist, provoking an angry reaction from the patient and possibly the end of the doctor-patient relationship. Patients often feel that such suggestions imply they are malingering or mad and are extremely hostile to the idea of psychological illnesses.

It is therefore of crucial importance to ensure that the patient feels understood by the doctor. Doctors need to appreciate that the patient's symptoms are real and must show they take them seriously. A full history and examination should be performed in the usual way, with additional information taken from a close relative where possible. While taking the history, doctors should be aware of any psychosocial cues from the patient, e.g. a description of their symptoms worsening around times of stress and explore these if the patient is happy to do so [77]. However, at this early stage in engaging the patient it is important not to confront the patient with psychological theories of their problems which might alienate the patient and undermine further management.

It is important to carry out only those investigations that the doctor feels are appropriate based on the history and examination. Further investigations will add nothing to management but will delay the right treatment, reinforce the patient's beliefs in organic pathology, add to the cost of the consultation and may lead to an increasing demand for more tests from other doctors once the limit has been reached by the first doctor consulted. It can help to negotiate in advance a final investigation, with the patient agreeing that this will be the last [77].

Many patients will be reassured by explanations that

allergic mechanisms are not occurring and that there is no other serious organic pathology on examination or on investigation. They will agree to stop the avoidance of substances they had believed were the cause of their problems as long as it is clear their symptoms are being taken seriously, that the doctor has explored possible causes, and they are reassured that symptoms do not indicate actual pathological damage. Credible alternative explanations for the ways physical symptoms can arise such as headaches and cardiac symptoms in relation to anxiety can be explored and linked to the psychosocial problems that have been elicited.

Patients will often admit that their symptoms are worse when they are under emotional stress and will benefit from basic advice on stress management. This can include training in progressive relaxation, discussing precipitants of symptoms, which can then be altered, and cognitive coping skills. Patients who hyperventilate can be asked to hyperventilate voluntarily as an experiment to see whether their symptoms are produced by hyperventilation and provide practice in exposure to feared symptoms and their consequences. King [78] describes a pragmatic and commonsense approach to the treatment of hyperventilation using a combination of breathing control, stress management and education. Psychosocially skilled non-medical staff such as physiotherapists, nurse behaviour therapists or occupational therapists can be invaluable in the management of functional syndromes.

Other patients with more severe symptoms of depression or anxiety should be treated with psychotropic drugs in the medical setting. There are many antidepressant drugs to choose from and the advantages and side-effects of the main types of antidepressants are summarized in Table 3. Antidepressants are effective in panic disorder as well as depression — notably imipramine and desipramine of the tricyclics, and monoamine oxidase inhibitors such as phenelzine. Patients with generalized anxiety disorder have also been shown to benefit from antidepressants, e.g. amitriptyline [79].

Patients with depression will often complain of poor sleep — this is due to shortened stage 4 sleep, increased REM sleep and frequent awakenings; these abnormalities are reversed by tricyclic antidepressants. MAOIs also suppress REM sleep but they have less hypnotic effect. 5-HT reuptake inhibitors are not as effective in sleep disturbance and are best used when sedation is undesirable.

Several tricyclics, used in lower dosage than in depression, have also been found to relieve pain in chronic pain disorders including somatoform pain disorder, migraine, arthritic pain and neurogenic pain, e.g. dothiepin has been shown to relieve atypical facial pain independently



Table 3.

| Antidepressant                        | Advantages  | Disadvantages  |
|---------------------------------------|---|--|
| Tricyclics                            | <ul style="list-style-type: none"> <li>— sedation which is useful for insomnia and anxiety</li> <li>— well established to be effective and safe</li> </ul>  | <ul style="list-style-type: none"> <li>— antimuscarinic side-effects</li> <li>— cardiovascular effects (arrhythmias, heart block can occur so contraindicated in recent MI or heart block, postural hypotension)</li> <li>— dangerous in overdose</li> </ul>                                   |
| 5-HTRIs (5-HT reuptake inhibitors)    | <ul style="list-style-type: none"> <li>— less sedative</li> <li>— low cardiotoxicity</li> <li>— few antimuscarinic effects</li> </ul>   | <ul style="list-style-type: none"> <li>— gastro-intestinal side-effects (diarrhoea, nausea, vomiting)</li> <li>— restlessness, insomnia, anxiety can occur</li> </ul>  |
| MAOIs (Mono amine oxidase inhibitors) | <ul style="list-style-type: none"> <li>— possibly more effective than other drugs in atypical depression, e.g. with hypochondriacal features, phobias, anxiety</li> <li>— used for depression refractory to tricyclics</li> </ul> | <ul style="list-style-type: none"> <li>— danger of dietary &amp; drug interactions (in irreversible MAOIs) with indirectly acting sympathomimetics</li> <li>— side-effects include postural hypotension, drowsiness, headache, oedema constipation</li> <li>— dangerous in overdose</li> </ul> |

of its antidepressant effect [80]. Low dose tricyclics have also been found to be effective in the treatment of chronic fatigue [81].

Patients reluctant to accept antidepressants may be more willing when informed of the genuine benefits on sleep, energy and pain. Others may need reassurance that antidepressants act on defined neurotransmitter systems, and are not addictive, as many fear.

Patients may also feel more able to accept psychologically based treatments if they are reminded of the complex interactions between social, psychological and physical factors. Stressful events can alter a wide range of immunological activities, e.g. even transient examination stress is associated with declines in natural killer cell activity and decreases in interferon-gamma production [82] and lower expression of interleukin-2 receptors [83]. Changes in mood may influence immunological function—severe depression may be associated with a suppression of some immune functions, e.g. natural killer cell activity [84] and there is evidence of a gradual phasic activation of the immune system as the severity of depression increases [85]. The significance of these immune changes is difficult to interpret; there are pitfalls in ascribing cause and effect. However, although the research literature remains inconsistent, the idea that 'stress' can influence the immune system is prevalent in modern western culture, and can be of help in introdu-

cing psychological issues to the consultation. For some any psychological approach is unacceptable, no matter how sensitively handled. Such patients may nevertheless agree that it is very difficult to avoid the large number of offending substances and symptom suppressive treatment is more practical.

### Psychiatric referral

On occasions the doctor may feel he or she does not have the skills (or more often the time) to explore psychosocial issues. Sometimes the patient has a specific psychiatric disorder such as severe depression, psychosis or a disabling phobia which need psychiatric treatment.

Referral to a liaison psychiatrist with an interest in patients who present with somatic symptoms would then be appropriate, although it must be admitted that many general psychiatrists are little better equipped to assist severely ill patients with firm illness beliefs.

The way the referral is made is crucial to the future treatment of the patient as patients may be extremely reluctant to see a psychiatrist. Blunt or insensitive referral may be counter productive — all too often referral letters from physicians state 'please see this patient who has nothing wrong with them'. It is not surprising that such unobtrusive referrals with the implication, usually conveyed to the patient, that

psychiatrists deal with patients who have nothing wrong with them, are unlikely to be successful. Indeed, some clinical ecologists claim that suggestions of possible psychosocial aetiology can itself then cause the psychological disorders found in many patients [86]. There is no evidence to support this, but badly managed psychiatric referral will add to a patient's distress and loss of confidence with conventional medicine.

A joint outpatient appointment where the patient is seen by the physician and the psychiatrist together may be one way of engaging the patient, especially if this is done as part of the initial assessment. If this is not feasible, close liaison between the two specialties is important to facilitate communication between the doctors and the patient. It is important to be honest that the referral is to a psychiatrist otherwise the patient will feel angry and duped when they receive a subsequent appointment.

If the patient admits to feeling depressed or anxious the referrer can point out that the psychiatrist will be able to treat these problems, even if their other symptoms are not perceived as being related to psychological problems. The referral can be acceptable to the patient if it has been discussed how psychological problems can contribute to the symptoms. In other patients it may be easier to explain that the psychiatrist has expertise in rehabilitation and coping with chronic symptoms [87]. The doctor should never say 'there is nothing wrong', although it might be appropriate to state that 'your symptoms are not explained by allergy'.

In an ideal world, what might psychiatrists have to offer? Although we do not yet fully understand how patients develop these new allergy diseases, research into related syndromes have suggested various possible treatment options worth exploring. These include reattribution [88], psychotherapy [89] and cognitive behavioural therapy [90]. Avoidance of the normal environment is reduced by gradual exposure to the substances concerned, usually by an organized behavioural programme [91], with the aim of enabling patients to return to active life rather than allowing social withdrawal and disability to be reinforced.

## Conclusion

Patients presenting with multiple unexplained symptoms attributed to allergy can present a management challenge to their physicians. Effective engagement with the distressed patient is essential and overinvestigation should be avoided. Liaison between the physician and the liaison psychiatrist is necessary so that patient acceptance of psychiatric referrals can be facilitated. Treatment for specific psychiatric disorders may be necessary. Most importantly a progressive return to

active life should be encouraged rather than reinforcing further disability.

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