

LETTER TO THE EDITOR

Behavioural breathlessness

Professor JBL Howell's paper on behavioural breathlessness (April 1990;55:287-9) merits commendation to all physicians, not only because the syndrome is underdiagnosed but also because he has validated the point by ingenious investigations linking the physiological and clinical aspects. Having discarded the draft of my paper on the same subject as a result, I should appreciate the opportunity to make some additional comments.

Some years ago, after omitting cases of florid hyperventilation with no respiratory disease, I found "behavioural breathlessness," which I termed "psychogenic dyspnoea," in nearly 10% of private patients, 15% of hospital patients, and 30% of medicolegal cases (usually related to occupation or motor car accidents). In obstructive syndromes failure to recognise the superimposed psychogenic dyspnoea leads to excessive use of, and dependence on, bronchodilator aerosols—indeed, a diagnostic feature is the urgent need to use a puffer without obvious reason during the interview.

In the medicolegal cases the gain motive is only rarely dominant. Rather, the syndrome is a heightened awareness of breathing, enhanced by being in a position of ill understood and inadequately explained conflict, all too evident to the subject of multiple enforced medical consultations, with no resolutions of his or her problems over months or even years. Anxiety is aggravated when the added symptoms are not identified or explained, and the vicious circle is complete.

Part of the diagnostic difficulty is perceptive and semantic. "Short of breath" are the only words the patient has to describe the symptom, even though the sensation is different from the dyspnoea of asthma or of exercise; patients are often confused when asked if there is a difference. The problem can be better resolved by asking them to sit back, relax, shut their eyes, not talk (which they always want to do), and imitate the breathing during an episode. The pattern is often diagnostic—a sigh or two, or a few breaths nearer and nearer to total lung capacity, so that a satisfyingly deep breath becomes impossible, or a wildly bizarre pattern of frequency and depth. One grossly depressed patient simply stopped breathing for what seemed an eternity.

The clues lie in the history, which Professor Howell does not discuss in detail. Breathlessness while the patient is talking on the telephone, watching television, or walking downhill are quite common. That patients may hyperventilate during exercise, as Professor Howell shows, seems not to be understood by most doctors. I ask a series of questions requiring a yes/no answer, starting, "When you are short of breath, do you notice dizziness or not?"—the last two words to minimise a directed response. This is repeated in relation to pins and needles in face and hands, hot flushes, palpitations, and chest pains (tetany is very rare).

Professor Howell rightly refers to a disproportion between dyspnoea and ventilatory state, though this is not inevitable. This is best shown by a psychometric line method,

with "I cannot breathe at all" at one end and "My breathing is perfectly normal" at the other: "Where are you now—at your best/at your worst?" Comparison with spirometric results is informative and particularly valuable as being "objective" (understandable to judge or jury) in medicolegal cases.

For the examination I use the same technique except that I find really deep breaths unnecessary: "a little bigger than usual" is generally sufficient to reproduce symptoms, and therefore a little more sensitive as a test. Exaggerated reactions are often obvious and are frequently reproduced during spirometry without continued hyperventilation. It is important also to demonstrate, without warning, the tender spots in the typical sites recorded in anxiety or "nervous tension" states, so that reassurance can demonstrably be given that these almost invariable pains are musculoskeletal and not in the lungs or heart.

I differ from Professor Howell on management. When symptoms are reproduced during examination I ask if the symptoms are the same as the patient complains of when short of breath. The answer is in the affirmative (if the diagnosis is correct). As humbly as possible, I point out that I knew this would happen and that obviously they were long rather than short of breath. Any doubts are resolved by repetition of the experiment. I emphasise that the same symptoms occur in anyone who overbreathes, and that the reaction is not "abnormal"; the only "compensation" for a feeling of shortness of breath is in fact to overbreathe—and so on. Patients who describe only an inability to take a deep breath, without hyperventilation symptoms, are surprisingly understanding of a diagram indicating the rise in functional residual capacity towards total lung capacity with tension; they are advised to relax and breathe out fully (avoid the word "expire"!) and then take a deep breath. I refrain from making a further appointment because this tends to negate reassurance; I prefer to leave this question with the patient's general practitioner after appropriate discussion. In severe cases relaxation therapy and a graduated exercise training programme may be helpful, but at all costs no "breathing exercises"!

In summary, I believe that "behavioural breathlessness" should be extended to include cases of psychogenic dyspnoea without necessarily the symptoms of true hyperventilation; inability to take a deep breath, the need to sigh, and even disproportionate dyspnoea on bending over or carrying a light weight (doubtless physiologically different) are equally alarming to these patients, who genuinely fear early dissolution. I also believe, apparently contrary to Professor Howell, that behavioural breathlessness may occur in perfectly normal but anxious people, inappropriately but understandably more aware of their breathing than those of us who are free of respiratory problems. I know several physicians who suffer from "shortness of breath" before a lecture.

BRYAN GANDEVIA

*Formerly chairman,
Department of Respiratory Medicine,
Prince of Wales and Prince Henry Hospitals,
University of New South Wales,
Sydney, Australia*

AUTHOR'S REPLY I thank Dr Gandevia for his generous comments.

I chose the title "Behavioural breathlessness" rather than "Hyperventilation syndrome" because I hoped to arouse first

curiosity and then interest, which I feared the well known term hyperventilation syndrome might not evoke. Hyperventilation syndrome is probably a more appropriate name because it does not imply that breathlessness is necessarily a presenting symptom; any sensation induced by overbreathing may occur.

Dr Gandevia emphasises the prevalence of hyperventilation syndrome in his groups of patients, remarkably similar to that of our clinic referrals, presumably diagnosed on the same basis of reproduction of symptoms by voluntary overbreathing. I agree also that gross disorganisation of the pattern of breathing may occur, and Bruce Burns and I gave a striking example of this in our paper in 1969.

I did not discuss in detail clues that may raise suspicion of hyperventilation syndrome, other than those contained in the way in which the patients describe their breathlessness—for example, occurring at rest while they are relaxed, harder to breathe in, etc. Breathlessness on walking downhill is presumably another example of breathlessness disproportionate to the level of exertion. But although such clues are important I now believe that, regardless of the nature of the symptoms, any patient in whom there is uncertainty of the diagnosis should be asked to take 20 deep breaths.

I am not clear in what way Dr Gandevia thinks that we differ over management other than that I offer the patient a review appointment in six weeks' time. I consider this review important for several reasons. The first is to check whether, when any hyperventilation syndrome symptoms have been removed, residual organic disease symptoms have been revealed. One such patient who conveniently hyperventilated spontaneously during my physical examination, thereby demonstrating at least one of the mechanisms in an otherwise confusing picture, returned as requested six weeks later much improved but still with attacks. Further questioning disclosed that these were now characteristic of a pheochromocytoma whereas previously they had been "buried" in the accompanying functional disorder. A second reason for a review appointment is that failure to improve usually means that depression has been overlooked or inadequately treated; it might even mean an incorrect initial diagnosis. But Dr Gandevia's point is a good one if it is intended to reinforce the confidence with which this diagnosis is made. Explanation and demonstration of the mechanism of the symptoms in the context of the personality and experiences of the patient (identified by the patient, not the doctor) is the essence of management. I was pleased to note that Dr Gandevia shares my rejection of breathing exercises in the management of such patients.

In his final paragraph, with which I entirely agree, Dr Gandevia has also misunderstood my view. I make a point of telling patients that hyperventilation syndrome is not a disease (with apologies to Moran Campbell and Guy Scadding) but merely a reaction which normal people may get if they happen to be perfectionists and when certain events have occurred in their lives—bereavement or loss, resentment, and illness (or more likely uncertainty about whether or not they have serious illness).

It is encouraging for the "hypothesis" that such similar views have been generated independently on opposite sides of our globe.

JACK HOWELL
*Faculty of Medicine,
Southampton General Hospital,
Southampton SO9 4XY*