

Editorials

In recent years the number of articles submitted to *Thorax* has steadily increased; indeed, in the past year the figure has risen by 30%. The quality of the papers has been maintained at a high level, and the proportion meriting publication has not fallen. As a result the waiting time between final acceptance of a paper and publication has risen from 5-6 months to 8-9 months. We consider that this is an unreasonable delay for an author to accept before his publication sees the light of day. We have attempted to minimise the waiting period by increasing the number of pages in each issue of *Thorax*, by reducing the size of tables and illustrations, and using a smaller typeface in some cases, but these experiments have now reached their limit.

The Thoracic Society has therefore decided that from January 1980 the journal will be published monthly. It should then be possible for all articles which have been accepted to be published within five months. Monthly publication will of course necessitate a relatively small adjustment to the subscription rate.

Our editorial at the beginning of 1978 indicating fields that were not adequately covered by the contributions in *Thorax* met with a satisfactory response, and we feel that the whole spectrum of cardiothoracic medicine and surgery is now well represented. Moreover, the international nature of *Thorax* is emphasised by the fact that last year articles were submitted to the journal from 34 different countries. We are still disturbed that British thoracic surgery is under-represented in a publica-

tion that emanates from the United Kingdom. In 1977 only 12 articles from British thoracic surgeons were published, and in 1978 only 22. We are sure that the skill and originality of British thoracic surgeons matches that of their colleagues around the world. We hope to receive more contributions from them in the future.

From January 1980 references in the journal will follow the principles laid down in the Vancouver Declaration (*British Medical Journal*, 1979). References should be numbered consecutively in the order in which they are first mentioned in the text. Arabic numerals above the line will be used to identify references in the text, tables, and legends. The form of reference should be that used in the *Index Medicus*. This is as follows:

Authors. Title. Abbreviated name of journal year; volume number: first and last page.

The names of journals should be abbreviated according to the style used by *Index Medicus*.

The instructions to authors on the inside front cover have been amended and henceforth manuscripts submitted should adhere to them.

BENJAMIN B MILSTEIN
ANTHONY SEATON

Reference

International Steering Committee of Medical Editors (1979). Uniform requirements for manuscripts submitted to biomedical journals. *British Medical Journal*, 1, 532-535.

Clinical diagnosis of byssinosis

Standard textbooks describe the early symptoms of byssinosis as chest tightness occurring on the first day at work after a break—generally on a Monday in Western countries and on a Saturday in Arab countries (Parkes, 1974; Crofton and Douglas, 1975; Morgan and Seaton, 1975). The meagre information on symptoms contained in these accounts (simply chest tightness) has led to

undue emphasis on timing (return to work) in the diagnosis.

The earlier descriptions of the disease give a much fuller account of the symptoms. In 1831 Kay, a Manchester physician, pointed out that the chest disease of cotton spinners differed from ordinary chronic bronchitis, adding:

"[the patient] experiences a diffused and ob-

scure sensation of uneasiness beneath the sternum. On sudden exertion, a pectoral oppression ensues, arising, as it were from an inability to dilate the chest fully in the ordinary inspiration."

Two points are worth noting: firstly, the careful description of the symptom with no mention of *tightness*; secondly, the symptom was not related to any part of the week.

Some 30 years later, during the cotton famine, large quantities of low quality Indian cotton were imported, and respiratory disease among cotton operatives increased. A more graphic, if less precise, account was given by a factory surgeon (Leach, 1863):

"Cardroom operatives suffer from spasmodic cough, sore throat, expectoration of blood, pneumonia and confirmed asthma, with oppression of the chest."

Again, *tightness* of the chest was not mentioned, neither were the symptoms related to any particular day. The use of "asthma" will be discussed shortly.

At the start of this century there was a good description by a medical inspector of factories, who was a careful and accurate observer (Collis, 1909). He added the timing of the symptom to the description:

"As soon as the individual begins to suffer, he finds his breathing affected on a Monday morning, or after any interval away from the dust; on resuming work he has difficulty in getting his breath. This difficulty is worse the day he comes back. Once Monday is over he is all right for the week. I cannot explain this fact, but it is very generally reported. The man gradually gets 'tight' or 'fast' on the chest and he finds difficulty in filling his lungs; to use his own expression 'the chest gets puffed up'."

Although the word *tight* has now been introduced, the symptom is described more fully than simply "tightness of the chest."

Subsequent descriptions are more complicated because "asthma" is used with changing meanings. Originally from the Greek it meant simply panting (Roberts, 1954) and, coming into our language through Middle English, was applied to almost any form of difficulty in breathing. During the nineteenth century it had this meaning in popular use, although in medicine its use was becoming restricted to difficulty in breathing which occurred in episodes and was not necessarily related to exertion.

This change in meaning was clearly recognised by Collis (1915) in his Milroy lectures. He distinguished the shortness of breath on exertion

occurring in patients with pneumoconiosis (he called it "air hunger") from "true asthma" (that is, episodic) occurring among cotton strippers. His description of that condition is instructive. He wrote that, after five to 20 years, the patient:

"finds his chest becoming affected; at first the only symptom is difficulty in breathing on Monday morning, or after any interval away from the dust, and after the first day is over he may remain unaffected for the rest of the week."

Again, it is interesting that the description is of difficulty in breathing, rather than of a sensation of chest *tightness*.

Dearden (1927), in his Milroy lectures, used asthma in the sense of episodic difficulty in breathing to describe the chest disease of cotton strippers:

"There is pronounced dyspnoea which is distinctly asthmatic in character and of a thoracic type; there is a dry irritative cough, and the expectoration, very little in amount, is very sticky and difficult to get rid of."

Neither of these descriptions is as meticulous as the first by Kay, but, in both, the emphasis is on intermittent difficulty in breathing without mention of the subject complaining of tightness of the chest.

In 1932 a committee, set up to investigate dust in cardrooms, reported several medical observations, many of which, unfortunately, did not clearly separate the early symptoms of the condition from those of respiratory disability, which sometimes developed later (Report of Departmental Committee, 1932). Some operatives appeared before the committee, and their accounts were carefully recorded. They all stated that, at first, the dust affected them on Mondays after the weekend "causing a constricted feeling in the chest with difficulty in breathing, which gradually wore off in a day or two"; several added that they were unable to walk home after work because of the shortness of breath.

At this stage in the development of the description of the disease, the multiplicity of descriptions, centring around difficulty in getting the breath and a constricted feeling in the chest that sometimes limited exercise, strongly suggest that the patients were trying to describe a sensation that was very real to them but difficult to put into words, unlike pain or cold.

With the advent of epidemiological studies came the need to standardise questions to increase the repeatability of response and to reduce observer error. To achieve this the patients' answers have been reduced to Yes or No and the descrip-

tion of symptoms transferred to the interviewer (Roach and Schilling, 1960). Presumably (and understandably) at this stage questions about an obscure sensation of unease beneath the sternum or pectoral oppression were rejected in favour of the simpler, if incomplete, "tightness" of the chest.

As we have seen in the opening of this paper, the baby has been thrown out with the bath water, for the standard clinical textbooks have adopted the epidemiologists' shortened description of a more complex symptom. With the description of the symptom reduced to chest tightness, emphasis has shifted to its timing, and attention is now concentrated on whether or not chest tightness comes on a few hours after starting work on the first day after a break. The lesson is not new. If the patient with byssinosis is allowed to describe his symptoms, he will frequently not use the expression "tightness" but will search for words, as patients and physicians have done for more than a century, to describe a sensation of oppression in the chest felt somewhere behind the sternum. He will associate it with an ill defined "difficulty in breathing" which may lead to shortness of breath on exertion. Occasionally he may also complain of cough. The symptoms when described fully will have many of the features of Kay's careful account of 150 years ago (Kay, 1831).

The diagnosis is generally confirmed by the timing of the symptom, usually starting after the person has been at work for a few hours—it does not begin at the start of the shift. It may last some hours and even persist for some time after work. To begin with this generally occurs on the first day at work after a break, such as a weekend or holiday. Sometimes, however, the "break" is provided by the pattern of working. In waste cotton mills exposure may be intermittent, depending on the particular material being processed, and if a batch of material containing raw cotton is introduced in midweek the characteristic symptom will be noticed then. The progression of this syndrome to other working days is well known.

The clinical diagnosis of byssinosis, like that of other occupational diseases, depends on full and careful occupational and medical histories. "... the essential role of the doctor remains . . . to hear what the *patient* has to say . . ." (Platt, 1972; my italics). In the later stages of the disease the patient may not always recall clearly the precise timing of his symptoms in the early stage of the disease, but he can often describe an unusual, and in some ways characteristic, sensation.

W R LEE

Department of Occupational Health,
University of Manchester,
Manchester, UK.

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