

HISTORY, DIAGNOSIS AND THEN EXAMINATION

EOIN O'BRIEN

The Charitable Infirmary, Jervis Street, Dublin 1

In the course of a year's teaching to students, I make two important pronouncements (the rest of what I say has been said elsewhere with greater erudition). To the junior students, arriving fresh from three years' deprivation in the preclinical wilderness, I stress and attempt to illustrate that the patient's history is much more important in reaching a diagnosis than will be the information gleaned from physical examination. I say, quite truthfully, that if for the rest of my medical days I was to be given the choice of either taking a history or examining the patient, I would without hesitation settle for the former option. I speak, of course, for my own speciality of cardiology, but perhaps the situation is not all that different in other disciplines—but more of that later. I urge them to leave that talisman of medical approbation in the hip pocket, where a discrete showing of the ear-pieces will serve them far better in social advancement than in clinical achievement.

When I come to teach the final year students I realise that the message of three years earlier has been forgotten or suppressed in the course of later training. Having stressed once more the importance of devoting the major part of clinical assessment to the history, I advise them to pause after taking the history, to make a differential diagnosis, and then to examine the patient selectively. Some students regard this approach as a little short of fair play. Unfortunately they come to finals believing in the concept of a "complete physical", something that none of their teachers have attempted to do since qualifying.

A careful history and relevant examination will permit a diagnosis, or a few differential diagnoses (as distinct from an endless list of "problems") in almost every patient, and this being so, investigations if indicated at all, need be few. Students must learn that there is no such thing as a "routine investigation"; that all investigations must be ordered only after careful thought; that all investigations

cause the patient discomfort; and that investigations are very costly. (Hospitals should publish regularly a list of the costs of investigations for the education of doctors, nurses and students.)

Some time ago, writing in *World Medicine*¹, I earned the opprobrium of a geriatrician for decrying excessive investigation, particularly in the elderly, and I concluded that "most clinicians know the answer at the end of a thorough history and clinical examination; in fact, usually make the diagnosis at the end of the history". Maurice Pappworth, not one to mince his words, wrote in my defence that "it is usually the clinicians of poor calibre who attempt to justify the multiplicity of their investigations on the grounds of thoroughness, or fear of missing something or playing for time . . . merely because the facilities are available for a particular test is not a sensible reason for ordering it".

The sceptic might dismiss what has gone above as anecdotal conjecture were it not for an interesting and valuable article by Gerald Sandler in the *British Medical Journal*² entitled "Costs of Unnecessary Tests". The diagnoses in 630 patients referred to a medical out-patients department were carefully analysed. The accuracy of diagnosis made by the general practitioner, the junior hospital staff and the consultant was assessed, and then the influence of the history, the examination and investigations on both diagnosis and management was studied.

The history provided the diagnosis in two-thirds of patients, and it also decided management in nearly half of all patients. In patients presenting with chest pain, 90% can be diagnosed from the history alone. The examination, on the other hand, affected diagnosis and management in only 17% of cases. Examination gave the least help in gastrointestinal disease and was of most help in respiratory disease, and less so in cardiovascular disease where its main importance was in the diagnosis of hypertension and valvular heart disease.

But what of investigations? So-called "routine" blood count, erythrocyte sedimentation rate, blood urea and serum electrolyte estimations were of diagnostic help in only one per cent of patients. Urine examination, blood sugar estimation, chest x-rays and E.C.G.s were of little help in a "routine" capacity, but if these are regarded as a special investigation in patients with diabetes, respiratory and cardiovascular disease, understandably their value is greater. Of the special investigations, the most useful were barium studies and cholecystograms in deciding the diagnosis of alimentary problems. Likewise, thyroid function tests and glucose tolerance tests were helpful in endocrine disease.

The annual saving to the National Health Service in Britain if no routine tests were done would be around £3½ million and, as the author points out, "the corresponding loss of help in diagnosis and management would be negligible!"

This fiscal conclusion will, of course, be of interest to the administrators, who must by now know that bureaucratic dissipation of finance in the health services is matched only by the thoughtless extravagance of the medical profession. But Doctor Sandler has another important message—this one for teachers of medical students. He points out that conventional training is based on the concept that only after a history and examination can a diagnosis be considered. On the basis of his study he advocates that "the traditional case presentation of history and examination followed by differential diagnosis should be changed to history, diagnosis and relevant examination findings". It is time for an iconoclastic revision of our clinical teaching methods.

References

1. O'Brien E. (1978). *World Medicine*, March 8th, p. 31.
2. Sandler G. (1979). *Brit. med. J.*, 2, 21.