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A is for aphorism

Is it true that 'a careful history will lead to the diagnosis 80% of the time'?

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aphorisms and proverbs as topic; medical history taking

Medicine is an uncertain pursuit. As medical students and junior doctors, we often try to manage this by collecting golden rules as we progress through our education. And there are many occasions when a 'third voice' joins us during a consultation – the voice of a professor, clinical tutor or colleague, that enters our head spouting a pearl of wisdom, such as, 'a woman of childbearing age is pregnant until proven otherwise' or 'when you hear hoof beats, think horses not zebras'.

Several prominent doctors have published collections of their aphorisms. The collection of Hippocrates and Sir William Osler are two famous examples. More recent examples include collections by Clifton Meador[1] and Oscar London.[2] While doctors base many clinical decisions on these golden rules, I wonder whether we have spent enough time reflecting on their accuracy.

This article is the first in a series examining common medical aphorisms. Where did these phrases come from? Is there any truth in them? Isn't there an exception to every rule? Should we base our decisions on a few witty words?

Early in our clinical education, we learn that history taking is the foundation of our profession. I recall clearly the lecture where I was told, 'A careful history will lead to the diagnosis 80% of the time'. Many versions of this saying exist. The same sentiment is implied when consultants ask junior doctors, 'Have you taken a full history?' Yet clinical teachers bemoan that medical schools do not prioritise teaching history-taking skills.[3]

The aphorism, 'A careful history will lead to the diagnosis 80% of the time' appears to originate from a 1975 paper by Hampton,[4] which examined a consecutive sample of new patients seen in a weekly medical clinic over a 4 month period. Each patient had been referred by their general practitioner. After reading the GP referral letter, clinicians were asked to give up to three differential diagnoses, rating their confidence in each possible diagnosis. This process was repeated after taking the patient's history, and again after the physical examination. Two months after this initial visit, the patient's chart was reviewed to record the final diagnosis. At the end of the study, the history provided enough information to make the diagnosis in 66 out of 80 patients (83%). Interestingly, 37 patients (46%) had a diagnosis that was the same as the referring practitioner's. Perhaps the aphorism that developed from this paper could equally have been 'half the diagnosis is in the referral letter'. Similar results have been found in subsequent studies.[5,6]

The statement 'a careful history will lead to the diagnosis 80% of the time' obviously depends on context. Clinicians in Hampton's study had the advantage of both another practitioner screening and working-up the case, and more time since the initial presentation for clinical features to develop. Furthermore, doctors will differ in confidence on a diagnosis when presented with exactly the same information. Experience and personality clearly play a role. Physical signs and investigations will be of higher importance when assessing an unconscious patient, while a history suggestive of depression may be all that is required for a GP or psychiatrist to make a diagnosis. Some specialties, such as dermatology, will rely more heavily on examination and pattern recognition by looking at the rash or skin lesion. In genetics, the precise gene mutation can only be confirmed with a laboratory test.

However, the saying, 'a careful history will lead to the diagnosis 80% of the time' does remind us that carefully and attentively listening to our patients is both prudent and fruitful.

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