

Non-Conventional Diagnostic Tools: Do We Really Need Them?

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Accurate and early diagnosis of disease accompanied by a good general health assessment is what every individual expects from a consultation with his/her medical doctor. The classical means of reaching the proper diagnosis is to obtain a good medical history, perform a methodical physical examination, and order relevant diagnostic tests for general and specific screening. Apart from the conventional way and the properly tested and approved methods for screening there is an undercurrent of different and less tested methods of alternative screening. Some look at the eyeball, some look at the patient's hands or feet, and others use various devices for better screening and more accurate diagnosis. In the current issue of *IMAJ*, Zimlichman and associates [1] report the success of a new device manufactured in Israel that measures electrical resistance of specific dermatomes. The measurements are then analyzed by a special software program that produces a suggested diagnosis.

However, the diagnosis is very general and very non-sensitive, making this method unlikely to be helpful, at least in the hospital setting. The application of such a device in the general practices in the community has yet to be tested using sound methodology before we can pass judgement on its applicability. A major problem with the method is the general and non-specific type of diagnosis derived from the system. I believe that a simple and straightforward medical history followed by a thorough physical examination is a far more accurate and simple method of diagnosis. However, screening tests and specific devices could be very useful if used in well-defined populations. The simplicity of a stool test makes it a good screening tool for colorectal cancer in spite of the low sensitivity, which could be improved by a solid history-taking and a rectal exam for every individual above the age of 50 [2]. The measurement of prostatic specific antigen is also not very sensitive but is very specific and serves as a follow-up tool in prostate cancer [3]. Another very useful prognostic tool in atherosclerosis is the simple measurement of systolic pressure in all four limbs and determination of the ankle to brachial index (ABI index) [4].

In my opinion, we do not need tests or devices that are

overly general, do not point to a specific diagnosis, and lack reliable prognostic value. The future of such devices – for example, the Medex test device described by Zimlichman et al. in this journal [1] – is very unclear and their role has to be tested. Nonetheless, more defined tests and devices such as those measuring arterial elasticity [5] or intima media thickness [6], vascular calcification [7] or the degree of inflammation [8] are more likely to be helpful than the use of “general internal pathology indicators” such as the one described by Zimlichman.

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