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Editorial

Not all wise choices are modern nor all nonsense is ancient

About technological advances, guides and algorithms in medicine

Sergio Trevethan Cravioto [a]

The development of science in the last three decades, and particularly in the domain of medicine, has been surprising and overwhelming. The result is there for all to see: life expectancy has increased at an unusual level for the first time in the history of humanity. Nobody can deny the enormous benefit that the technological advance has offered in the field of health. Nowadays, a machine can continuously measure the amount of glucose that a patient has in his/her blood, and be programmed to send the necessary amount of insulin to the patient's bloodstream to counteract its effect. Today, a heart valve may be replaced by catheterization, without surgery; a pacemaker has more functions than the patient's conduction system, the one provided by nature. These days, a tomography can measure the amount of calcium in a cardiac valve in Agatston units, to calculate its narrowness. These examples are enough to get an idea of what I am talking about. Nevertheless, as Doctor Ignacio Chávez (He was a prominent Mexican cardiologist, who was rector of the National Autonomous University of Mexico from March 1965 to April 1966) envisaged back in the '40s, there are risks attached to the super specialization of medicine: the progress made in-depth is lost in length; doctors are no longer internists and become highly qualified experts in a very limited field. Naturally, this is not ideal; people are not reduced to 1 or 2 centimeters of their body; they are thinking beings who need to be heard. In this respect, I state that one can be an expert in a limited field, provided that the human being is considered as a whole, without forgetting internal medicine. Apart from a few rare exceptions, medical practitioners have abandoned their clinical practice to surrender to the overwhelming technological progress; they have stopped thinking and realizing the thorough analysis required for each specific case, to undergo adequate studies that transcend inquiry and physical examination; instead, the practitioner asks the machine how is the patient, as if it was capable of thinking, and even worse, the practitioner does not even read the study or is incapable of interpreting it; or trusts in someone else's interpretation and makes a decision based on inadequate information that could lead to a not required surgery. It is terrifying to see how some intensive care physicians just check the screens of their machines and obtain all the data needed for their patient's care without even greeting them or asking them how they feel, whether they slept well or if they eat better. Nowadays, medical practitioners do not even know how their machines work, why or from where they get their answers; they only know that, by pressing a button, a software measures what they need, use mathematical formulas and obtain parameters, all this without really knowing which formula the software uses. But what is worse is that the physician does not see the scanned images, does not analyze curves or outlines; he/she mainly bases his/her diagnosis on a report written by another physician, supposedly an expert in the procedure, who does not know the patient, does not master the technique, and does not even know that a chest teleradiography is not independent of an echocardiography, hemodynamic, a tomography, a magnetic resonance imaging, electrophysiology, and even electrocardiography are all related. The same study conducted on a patient by different operators provides diverse information; moreover, the same operator may change the information from one day to the next. It is, therefore, necessary that the physician does not forget the medical history and physical examination, which is still nowadays the best tool available and provides scientific value that allows the physician to approach the person who has lost his/her utmost value: health. Some great teachers of Mexican cardiology regret the loss of the ability of exploration.

Guides have practically become dogmas to live by, to such a degree that if a medical practitioner has to give a conference or lecture and does not use a tracking guide, it gives a bad impression or is considered out-of-date. However, nothing could be further from the truth; guides are exactly that: guides and they should only be consulted when the physician doubts about specific or difficult cases. Thus, its use would be limited only to situations such as class B, since they already know what is in class A or what lacks in class C. Guides provide advice given by experts; they do not dictate rules. In medicine, rules are not advisable. Regarding the algorithms about how to follow a diagnosis or establish a treatment, they practically show that people who use them do not know about medicine or do

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[a] *Corresponding author: Deputy Director, Teaching Coordination. Instituto Nacional de Cardiología "Ignacio Chávez" (National Cardiology Institute).* Ciudad de México. México. Email: trevethan@prodigy.net.mx

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not have the knowledge about the study or medication that is required in each specific case. Relying on those algorithms implies rejecting the old and accurate aphorism: “there are ill people, but no illnesses”, to declare that there are illnesses and not ill people.

As you can see not all wise choices are modern no all nonsense is ancient.

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