

Novel resources and directions of preventive medicine

As novas armas e rumos da medicina preventiva

*Osmar de Cassio Saito**

In a globalized world increasingly equipped with new technologies, we watch an accelerated increase in the incidence of metabolic diseases related to bad daily life habits, such as obesity and diabetes, particularly in the population of large cities. This phenomenon has mostly affected developed countries, but emerging countries have been affected by this public health problem as well. Brazil currently presents alarming rates of cardiovascular and metabolic disorders which in the past were distant from our reality, but nowadays these are disturbing factors in our daily lives. Factors such as incorrect diets, stress and lack of physical activities have more and more contributed to the development of disorders associated to fat accumulation in the organism of individuals in all social classes⁽¹⁾.

Even before the obesity onset, fat starts accumulating in subcutaneous tissues, visceral organs and in the retroperitoneum. Some people relate it to aesthetics, as this fat accumulation initially occurs in specific parts of the body, such as the abdomen, thighs and lumbar region⁽²⁾.

It is worth reminding the high socioeconomic cost of metabolic diseases such as type II diabetes and cardiovascular disorders, both as far as quality of life is affected and on how they impact investments in the health sector. The greatest contribution of the technology for a better health has been observed in the area of preventive measures that directly benefit society as a whole, which is easy to recognize in actions such as mass vaccinations against infectious diseases. But what could one say about cardiovascular and metabolic disorders?

For many years, computed tomography has been utilized in the evaluation of excess fat deposits in the abdomen⁽³⁾.

In this globalized world, recently afflicted by a huge economic crisis, we see the re-enactment of simple practices such as the planning of expenditures and savings. The study presented by Diniz et al.⁽⁴⁾, in this issue of **Radiologia Brasileira**, reminds us of the relevant role played by effective and low-cost methods, such as ultrasonography, in the simple and direct evaluation of the terrible and dangerous excessive fat accumulation.

Simple methods such as the measurement of fat pads in the subcutaneous tissue, visceral fat and perirenal fat allow a simple and reliable estimation of the risks associated with this lethal fat accumulation. However, it is necessary to take into consideration that there must be a strict coherence between the performance of the examination

* MD, Technical Supervisor at Division of Ultrasonography – Instituto de Radiologia do Hospital das Clínicas da Faculdade de Medicina da Universidade de São Paulo (InRad/HC-FMUSP, São Paulo, SP, Brazil).
E-mail: ocsaito@yahoo.com.br

and the results interpretation. Thus, previous training for the performance of the ultrasonography scans with this particular objective is of paramount importance⁽⁵⁾.

The study developed by Diniz et al.⁽⁴⁾ irrefutably demonstrates the interobserver agreement, and therefore the high degree of reliability of ultrasonography for evaluating excessive fat deposits and consequential risks.

Based on data reported by other mentioned studies and by the one developed by Diniz et al.⁽⁴⁾, it can be concluded that the high reliability of ultrasonography, and high reproducibility of the different types of sonographic equipment corroborate the relevant role of this method among the currently available alternatives, besides its low cost, easy and rapid performance, and high degree of tolerance by patients.

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