## THE EXCESSIVE GROWTH OF COMPLEMENTARY TESTS IN GERIATRIC PRACTICE

## O crescente uso excessivo de exames complementares em geriatria

"Excessive use" is defined as the provision of medical services in which the potential for harm exceeds the potential for benefits, considering with therapeutic and diagnostic interventions in the health field.<sup>1</sup>

The proliferation of costly technology is one of the main causes for escalating health costs worldwide. According to the Organization for Economic Cooperation and Development (OECD), in the United States of America, the number of magnetic resonance imaging (MRI) performed per thousand individuals who sought for health services (outpatient clinics or hospitals) went from 89, in 2006, to 107, in 2013. Canada, on the other hand, presents half these figures.<sup>2</sup> Despite the lack of reliable statistical data in Brazil, it is known that the offer for diagnostic equipments (MRI, among others) has increased in nearly all regions of the country. According to Martins,<sup>3</sup> the MRI segment stood out due to the increase of 118.4% in the supply of the equipment in Brazil, while X-ray machines had an annual decline in the Central-West and South regions.

There are several other Technologies which have been incorporated in clinical practice, especially in relation to complementary laboratory tests. In the United Kingdom, the costs with complementary tests are up by 5%, although the growth in the number of patients attended was of only 2%.<sup>4</sup>

Within the last ten years, many societies representing medical specialties have bowed to results of populational studies which recommended caution in the follow-up of elderly patients in specific groups.<sup>5</sup> Depending on the elderly's "underlying disease" (such as dementia, for instance), "new" diagnoses might not contribute for the improvement of the quality of life of this subject. Moreover, a large study in the United Kingdom (mostly elderly) regarding the screening for type 2 diabetes in patients with increased risk did not show significant impact on the initiative of screening about mortality by all causes, by cardiovascular disease or by diabetes itself within the following ten years. In fact, the benefits of screening (blood glucose requests and others) in individuals without detectable diseases (anamnesis and physical examination) are few.<sup>6</sup> The American Society of Family Physicians has even raised the possibility of abandoning blood glucose requests as screening of diabetes for patients with reduced life expectancy.<sup>7</sup>

There are no Brazilian studies assessing the physician's lack of knowledge in requesting complementary tests. An Irish study showed that most (54%) requests for tumor markers in the country were performed to track the suspicion of tumor or to determine the source of the primary tumor. About 9% of requests were made for the screening of individuals with family history of a specific tumor.<sup>8</sup> It is known that, despite these markers' aid in diagnosis, they are more appropriate in the follow-up of patient with the disease.

Geriatricians have a central rule as a medical specialty to discipline the use of each complementary test in clinical practice. There are both advantages and disadvantages in this process. Among the first, geriatricians have the obligation (and the privilege) to carry out a rather complete anamnesis from the clinical point of view. Few are the professionals who do so nowadays, especially in private medicine practice. It is hard to imagine a doctor treating a patient with vascular dementia and does not monitor their blood pressure. Or even a doctor who would assess cognition without a simple otoscopy to rule out the possibility of deafness by earwax blockage. The literature has demonstrated that using guidelines of specialties in geriatrics is often not the best choice.<sup>6</sup> The disadvantage is that elderly often get to medical offices with multiple morbidities, usually accompanied by many specialists who are unaware of the peculiarities of aging.

Despite debates on the part of professionals about the so-called "defensive medicine", this would not be the justifications for Brazilian doctors to request so many tests. As it seems, their medical training in college is the origin of this matter. Hospital wards and generalist ambulatory care are in extinction in Brazil, replaced by specialties and, often, subspecialties. The new trends of ambulatory of "X disease" advances in academic training. And this is precisely the context students nowadays are graduating from. How will they learn to diagnose hypothyroidism (extremely common among elderly) if they deal with outpatient units where cases are more complex? They will surely know (and request) the whole "T family" – TSH, T4L, T3 etc. In this context, requests for "routine" thyroid ultrasound, with no actual clinical indication, have also been frequent. There is no substantiated scientific evidence to support the screening for thyroid diseases on a large scale.<sup>9</sup> There are no regular disciplines in most schools of medicine which teach the importance and the risks of complementary tests — and their due attention. Nowadays, with the advent of computers and printers, requesting a list of tests is easy and practical, and made automatically by doctors, who as much as replaces patients' names so that the list is ready. Gross mistakes occur in this process, only to confirm professionals' disregard for such an important step of the medical act. Requests for prostate-specific antigen (PSA) testing for women is only an example of such neglect.

Other factors that contribute to the excess of complementary tests are the so-called "financial incentives" and the perks many doctors receive from private labs, clinics and hospitals. Although obnoxious, this matter has not yet been debated to the satisfaction of regulators, who are far more concerned with penalizing supplementary assistance rather than creating more favorable conditions for the system.

The media approach of "new technologies" and the easy access to tests are influential aspects of this massive request for tests. If the elderly would have a gateway into the system through a general practitioner, more than 80% of patients would not even need to consult with specialists.

Patients are not only victims, but also co-responsible in this process. Low education, pessimistic attitude, and not understanding the disease and the risks associated with taking tests and, especially, the lack of communication between patients and doctors are factors that increase unnecessary requests for diagnostic tests.

Neither doctors nor patients know the amount paid to perform the tests, except when paid by the user. Discussions on the scope of regulation for the practice of requesting complementary tests encompases several aspects: the councils and associations of the medical class which only see the "pressure of health insurance operators"; the National Health Agency that Always works with the idea that all regulation in the sector is a "restriction" of the user's rights; and justice, whose technical foundation is insufficient and thus upholds sentences with no scientific basis.

The market of diagnostic medicine has grown substantially in Brazil in recent decades. With an estimated number of 16 thousand laboratories, the sector has been subject to aggressive acquisitions by national and foreign investors. Diagnostic of America (*Diagnósticos da América* – DASA), in the United States, can be used as an example.<sup>10</sup> Profitability has grown at enviable rates for the rest of the Brazilian economic matrix. On the other hand, significant technological advances were incorporated into the diagnostic medicine. All physicians graduated for more than 15 years remember how, at the time, it was difficult to perform a blood culture and how poorly sensitive the method was. Currently, this test has improved in the quality and timeliness. On the other hand, their costs increased. In the field of diagnostic imaging, there was a clear increase in the number of private practices in Brazil. Although the undeniable clinician's gain this tool provides, excesses have occurred.

A recent review article entitled *Evidence for overuse of medical services around the world*, published by — the respected journal — *The Lancet*, approached the theme and the data are terrifying. The United States figure as the country with the most data regarding inappropriate use of medical tests and interventions, including frequent (and misleading) electrocardiograms, CT scans, neoplasm screening tests and even vitamin D dosages.<sup>11</sup>

Geriatricians have the scientific, moral and ethical obligation to use complementary tests in a parsimonious, appropriate and respectful way. By parsimoniously, read "economically viable" so that both public and private health survive the coming decades. By appropriate, read individualized. And, finally, respectful to the citizen who pays taxes and, in many cases, the consultation itself.

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