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EDITORIAL

Physical Therapy in Oncology and its impact on reducing mortality: the example of breast cancer

Fisioterapia em Oncologia e seu impacto na redução da mortalidade: o exemplo do câncer de mama

La Fisioterapia en Oncología y su impacto en la reducción de la mortalidad: el ejemplo del cáncer de mama

Due to the increase in its incidence and the morbidity and mortality associated with its diagnosis, treatment, and evolution, cancer is one of the major public health problems worldwide. In Brazil, according to data from the National Cancer Institute (INCA)[1], 704,000 new cancer cases are estimated for each year of the next three years (2023–2025), with breast cancer being the most frequent among the female population, representing 15% of cases.

However, mainly due to population aging and exposure to risk factors, the incidence of cancer is expected to increase substantially in the coming years. According to data from the Global Cancer Observatory[2], in the Brazilian population— in both sexes and in any age group— it is estimated, for 2040, an 68% increase of the predicted cases in relation to 2020. By 2040, 130,498 new breast cancer cases are estimated in Brazil, representing a 47% increase.

Cancer-related mortality depends on tumor biology, population's access to early detection and treatment strategies, preexisting clinical conditions, and treatment complications. In Brazil, cancer is still diagnosed, mostly, at advanced stages, which makes the treatment more aggressive and reduces the chances of cure.

When analyzing breast cancer cases treated in the Brazilian public health system from 2000 to 2009, it can be observed that, among 59,317 women, 53% were diagnosed at an advanced stage of the disease (≥IIB)[3]. Another factor that draws attention is that, when diagnosed with breast cancer, many women already have comorbidities that can impact their prognosis. In a study conducted at INCA, when analyzing 953 women at the time of breast cancer diagnosis, 84.1% had some comorbidity, in 10.8% of the cases affecting the cardiovascular system, and in 48.2% the vascular system[4].

It is interesting to note that both the diagnosis of breast cancer at an advanced stage and comorbidity at this time are associated with worse health-related quality of life (HRQoL). When evaluating 302 patients treated at INCA, we observed that 59% of them were diagnosed at an advanced stage and that they presented worse quality of life in the domains of global function, pain, and symptoms of breast cancer[5]. Regarding comorbidities, women with cardiovascular diseases presented worse HRQoL in relation to physical and sexual function and sexual satisfaction, future perspectives and symptom scales (pain, dyspnea and symptoms of breast cancer)[4].

HRQoL is an important mortality predictor. In our population, when following women with breast cancer, we found that those with better quality of life four years after cancer diagnosis had a lower risk of death in the two subsequent years[6].

Therefore, Physical Therapy can contribute to reducing mortality and increasing survival by alleviating treatment complications, favoring adherence and completeness of the proposed therapy against the tumor and improving quality of life in all function and symptom domains. These factors can benefit and optimize tumor response and the control of systemic and locoregional disease.

However, to achieve these objectives and reduce mortality, it is important to ensure the population's access to such practice immediately after the cancer diagnosis, and during all stages of treatment, follow-up, and palliative care. The conducts to be use should consider the cost-effectiveness of each intervention and be based on the best available scientific evidence and clinical experience, always considering each patient's environment, culture, expectations and experiences.

The current ideal model of physiotherapeutic assistance in Oncology begins in *pre-habilitation*,

the period between the diagnosis and the beginning of the treatment. The proposal of this phase is carrying out interventions aimed at improving the patient's health, with the purpose of reducing the incidence and severity deficiencies and the eventual complications related to cancer diagnosis and treatment.

The physiotherapeutic *habilitation* phase occurs throughout the oncological treatment, either in pre- and post-operative periods, or in chemotherapy, radiotherapy, hormone therapy or immunotherapy. During this period, physical therapy interventions seek to carry out the prevention, early detection and timely treatment of possible acute and chronic adverse effects of anticancer therapies.

Physiotherapeutic rehabilitation may be necessary at any stage after the cancer diagnosis, from the installation of chronic outcomes. The goal at this stage is to improve the patient's health conditions, reduce symptoms, and improve functionality. Therefore, rehabilitation should not be the main focus of Physical Therapy, as rehabilitating means that the previous stages of prevention and early treatment were not effective.

Palliative oncological care should be instituted to prevent and relieve the suffering of patients and their families by identifying and treating early physical, social, psychological, and spiritual symptoms, thus promoting a better quality of life for this population.

We still have a long way to incorporate the ideal model of physiotherapeutic care and to evaluate the impact of this assistance in reducing cancer patients' mortality rates.

The Brazilian Association of Physical Therapy in Oncology (ABFO) was founded in 2008, and in 2009 Oncology was recognized as a physiotherapeutic specialty by the Federal Council of Physical Therapy and Occupational Therapy (Coffito). Throughout these almost 15 years of expertise, several advances have been made, but challenges are still significant. We need strategies that involve the inclusion of Physical Therapy teaching in undergraduate and graduate Oncology courses, both specialization courses and master's and doctoral degrees. Resources are needed for the implementation of research protocols aimed at evaluating the safety, efficacy, effectiveness and efficiency of physical therapy resources, so that we can guarantee quality care to our population. The insertion of experienced physical therapists in Oncology is urgent at all complexity levels and in all environments of physiotherapeutic practice.

Although the road is long and often difficult, we have already come a long way. With the currently available scientific knowledge, it is possible to propose the insertion of physical therapists in all phases starting from the diagnosis of cancer, to improve the prognosis of cancer patients.

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