

Radical treatment of cancer and its metastases with innocuous therapy at the cellular level.

MD René Faustino Espinosa Álvarez

Master in Diseases Infectious, Auxiliary Professor of The University of Medical Sciences of Havana.
Auxiliary Researcher

PhD José de la Luz Montero García.

Doctor in Chemical Sciences. Specialist in Scientific Technical Information.
Institute of Scientific and Technological Information (IDICT) of Havana.

Summary

A therapeutic modality was applied to 15 patients with malignant tumors, already with metastases, who gave informed consent. The procedure consisted of reducing sodium intake and potassium administration, with the aim of reducing the effects of the disease. In 10 of the patients, the disappearance of the malignant tumors and their metastases was achieved, one died during the course of treatment due to causes unrelated to the disease and the remaining four died due to being in a phase of evident malnutrition. In no case were there adverse reactions, no affection of the quality of life of the patients, which is a demonstration of the innocuousness of this therapeutic modality that can be generalized to other mammals.

Keywords: Cancer, Etiology, Treatment, Prevention.

Introduction.

According to Hippocrates (460-370 b.e.), rightly considered the father of Medicine, “the diseases that come to men come from two general causes, namely, air and diet.” He also ruled that, in the specific case of chronic non-communicable diseases, these enter through the mouth, a circumstance that occurs when the chemical composition of food exchanges with the chemical elements inside cells.¹ Hippocrates was also the first to use the word cancer (which comes from the Greek word Karkinos), and also the first to coin the terms carcinos and carcinoma to describe a cancerous tumor, which in its shape is similar to that of a crab.²

On the other hand, the German pathologist and politician Rudolf Virchow (1821-1902) was the first to present a cell theory, which supported the emergence of diseases primarily in individual cells, as well as explaining their effects on organs and tissues. of the body and in demonstrating that these develop specifically within the cells themselves.³

All non-communicable chronic diseases such as diabetes mellitus, arterial hypertension, ischemic heart disease, bronchial asthma, etc., have their origin in the accumulation of intracellular damage as a process and, therefore, the same occurs in cancer.

The National Cancer Institute of the United States of America has defined malnutrition as a condition that occurs when you do not get enough calories or the right amount of major nutrients, such as vitamins and minerals needed to maintain a good health. Malnutrition can occur when there is a lack of nutrients in the diet, or when the body cannot absorb nutrients from food. Cancer and its treatment can lead to malnutrition.^{4,5,6}

Guyton and Hall, who in 1996 described the invasive characteristics of cancer cells, thereby answered the question of why they have the ability to kill in a process in which cancerous tissue competes against nutrients from healthy tissue. and, given the rapidity with which the malignant cells proliferate with respect to the healthy ones, the latter are definitely malnourished. When viewed under a microscope, metastatic cancer cells generally look the same as cells from the primary cancer. Both tend to have molecular characteristics in common, such as specific changes in chromosomes.⁷

In the section dedicated to cell injury and death in the book entitled: Stanley Robbins' Structural and Functional Pathology, it is argued that when there is a cell lesion, sodium enters the cell and potassium leaves it, with the consequent production of a cellular swelling or tumor.⁸ With this, the healthy cell begins to become a diseased cell that can take several courses, one of which may be to become a malignant neoplastic cell, depending on how each individual is nourished. Therefore, neither viruses, nor radiation, nor smoking or any other damaging factor or agent causes cancer, but yes cell injury.

Any disease is a process that occurs within cells, in which chemical damage accumulates until the time comes when its clinical symptoms begin to manifest.

As is known, there are several procedures for the treatment of cancer, among which surgery, chemotherapy, radiotherapy, immunotherapy, hormonal therapy, photodynamic therapy, hyperthermia therapy, stem cell transplants stand out. The treatment to be followed depends in each case on the affected organ and the stage of the disease. In certain situations, the application of more than one therapeutic procedure combined with another or with others is required. Side effects manifest in most patients as a result of treatment that may affect their quality of life.

Israeli researchers recently managed to "starve" a deadly brain cancer in mice by suppressing the surrounding energy sources. In this case, they managed to eradicate the astrocytes around the tumor and its disappearance.⁹

Almost 98% of body potassium is located in the intracellular compartment with a concentration close to 150 meq/l, which implies that this is the main cation of intracellular water and the most abundant chemical element in healthy cells, where is fulfilled "Le Chatelier's Principle"¹⁰ or "Equilibrium Law" is fulfilled (a system in equilibrium that, when subjected to a disturbance, will react in such a way as to minimize the effects caused by the change).

When, through the mediation of any agent, an injury occurs at the cellular level, the proper balance between sodium and potassium is lost, since the latter is no longer the predominant element, while sodium becomes the factor favoring the formation of the swelling. As already noted, the accumulation of intracellular damage can lead to the development of a malignant tumor over time.

The objective of this work is to present the results obtained with the application of a therapeutic modality based on the administration of potassium and the reduction of sodium intake with which the disappearance of cancer and its metastases is achieved.

Material and methods.

Starting in 1993, a therapeutic procedure began to be put into practice with 15 subjects with malignant tumors with metastases. According to a casual or accidental sampling (non-probabilistic sample) carried out on them, six of them suffered from prostate adenocarcinoma, two from colon adenocarcinoma and one respectively from pharyngeal carcinoma, osteosarcoma in the calcaneus region of the foot, chronic lymphoblastic leukemia, Hodgkin lymphoma, breast cancer, lung cancer, and adenocarcinoma of the head of the pancreas, all with metastases.

With prior informed consent, the patients began a treatment based on a dietary regimen that operated on the basis of decreased sodium consumption in the diet and the medicated administration of potassium. Before potassium administration, blood tests were performed to rule out renal involvement. This part of the treatment began orally at the rate of one gram of potassium daily, after two weeks it was increased to two grams and, after one month, to three grams as the maximum dose.

Results

Success was achieved with four of the six patients with prostate adenocarcinoma, with the two suffering from colon adenocarcinoma and with those suffering from cancer in the calcaneus region of the foot, pharyngeal carcinoma, chronic lymphoblastic leukemia, Hodgkin's lymphoma and adenoma carcinoma of the head of the pancreas. The minimum healing time was manifested after two years from the beginning of the treatment, while the maximum recovery time was two and a half years. During this period, no patient presented adverse reactions or quality of life was affected.

It should be noted that in the patient with carcinoma of the head of the pancreas, who died of digestive bleeding eight years after the start of treatment, which had to be discontinued on several occasions, it was found at necropsy that the tumor had decreased in size without find metastases.

In two of the patients with prostate carcinoma, as well as those who suffered from breast and lung cancer, cure could not be achieved, because they were in stages that already showed signs of evident malnutrition.

All patients in whom treatment was successful underwent imaging studies (ultrasound, radiography, CT) through which it was possible to verify the disappearance of the primary tumor and metastases.

Discussion

The treatment of patients with prostate cancer depends on the stage of the disease, its histopathological and molecular characteristics, added to peculiarities of each patient ranging from radical prostatectomy with or without pelvic lymphadenectomy, radiotherapy and its variants, hormonal therapy, chemotherapy, immunotherapy, high-density focused ultrasound therapy, photodynamic therapy. All of them cause side effects and have a negative influence on quality of life.^{11,12}

Lung cancer continues to be the leading cause of mortality in both men and women. In almost all countries, surgery, radiotherapy, chemotherapy and targeted therapy are included in the treatment, depending on several factors including the type of cancer and the stage.¹³

Colon cancer is another of the main causes of mortality in both sexes. Its recurrence after the initial curative therapy is frequent, the current standard treatment in early stages consists of the initial resection of the primary tumor together with the regional nodes and the administration of adjuvant therapies.¹⁴

Treatment of oropharyngeal cancer involves a multidisciplinary approach with concomitant chemoradiation. However, no differences have been shown in terms of survival in time to treatment failure. Low-volume surgical treatment and immunotherapy treatment have been applied.¹⁵

The calcaneus is a rare place for the appearance of primary tumors, it is more frequent in children and adolescents, it represents less than 1% of all osteosarcomas. Its prognosis is poor and with a high rate of metastasis.^{16,17}

Chronic lymphoblastic leukemia remains incurable despite the different treatments that have been put into practice to deal with it, although the picture has changed considerably with the introduction of highly effective oral targeted therapies such as Bruton's tyrosine kinase inhibitors and venetoclax and next-generation anti-CD20 monoclonal antibodies (obinutuzumab).¹⁸

Despite the fact that new treatment strategies have improved the prognosis of Hodgkin lymphoma, there continue to be unmet clinical needs, treatment-related morbidity, impaired quality of life, and poor outcomes in patients older than 60 years.¹⁹

Metastatic breast cancer is the most common among women with limited treatment options. The therapies used include hormonal treatment, chemotherapy, targeted therapy, immunotherapy, and radiation therapy. Currently, there is a tendency to develop more individualized treatments, but survival is still low.²⁰

Metastatic pancreatic cancer continues to be one of the most lethal with a poor prognosis. Although various combination chemotherapies are recommended, adverse effects are frequent, affecting quality of life.²¹

General considerations

As has been demonstrated in this article, the administration of potassium as an intracellular therapeutic, combined with a decrease in sodium intake in the diet, causes cancer cells to be unable to feed themselves and, therefore, to grow and spread. to other organs, which leads to their consequent malnutrition and subsequent disappearance during the course of treatment.

Likewise, the innocuousness of this therapeutic alternative was demonstrated here, because during its practice there were no adverse reactions or the quality of life of the patients was affected.

It has also been demonstrated that the cure of any chronic disease can be achieved with the application of intracellular therapeutic modalities based on biological laws and the laws of nature, where there should be no margin for error.

By virtue of the foregoing considerations, it is therefore appropriate to affirm that the application of the described therapeutic modality can be generalized to other mammals.

Recommendations

The treatment presented here should be put into practice as soon as the diagnosis has been made.

This procedure should not be combined with other treatments hitherto used to destroy the tumor, since these cause damage to healthy cells.

As a preventive measure and an important aspect in education for the health of the population, the consumption of foods rich in potassium and with low levels of sodium should be instructed, in correspondence with the intracellular chemical composition. In this sense, it is also appropriate to suggest that adding common salt be avoided as much as possible in the preparation of any type of food.

Bibliographical references

- 1-Espinosa Álvarez RF, López Espinosa JA. Vigencia del pensamiento hipocrático. Rev Cubana Med Gen Integr;2013;29(3):342-344.
- 2-Salaverry O. La etimología del cáncer y su curioso curso histórico. Rev Peru Med Exp Salud Publica 2013;30(1): Disponible en: https://www.scielo.org.pe/scielo.php?script=sci_arttex&pid=S1726-46342013000100026
- 3-Espinosa Álvarez RF, Montero García JL, Novoa Blanco JF. Teoría celular físico-química del cáncer. Rev Cont Quim 2008;3(3):16-18

- 4-Definición de desnutrición-Diccionario de Cáncer del CNI. Disponible en; <https://www.cancer.gov/español/publicaciones/diccionarios/diccionario-cancer/def/desnutricion>.
- 5-Fernández López MT, Saenz Fernández CA, de Sas Prada MT, Alonso Urrutia S, Bardasco Alonso ML, Alves Pérez MT. Desnutrición en pacientes con cáncer; una experiencia de cuatro años. *Nutr Hosp* 2013;28(2); Disponible en: https://scielo.isciii.es/scielo.php?script=sci_arttext&pid=0212-16112013000200015
- 6-Argiles JM. Cancer-associated malnutrition. *Eur J. Oncol Nurs* 2005;9(2):539-550
- 7-Guyton AC, Hall E. Control genético de la síntesis proteica, de la función celular y de la reproducción celular. Disponible en: *Tratado de Fisiología Médica*. La Habana: Centro Nacional de Información de Ciencias Médicas 1996 T1 p. 42.
- 8-Robbins S. Patología estructural y funcional. La Habana: Editorial Pueblo y Educación 1978; p. 26-32.
- 9-Perelroizen R, Philosof B, Budick-Haemelin N, Chernobylsky T, Ron A, Katzir R. et al. Astrocyte immunometabolic regulation of the tumor microenvironment drives glioblastoma pathogenicity. *Brian*, volume 145, Issue 9, September 2022, pages 3288-3307.
- 10-Pelayo DA, Gallego R, Pulido DC. El Principio de Le Chatelier: revisión de algunos libros de texto universitarios. *Rev Plumilla Educativa* 2018,21(1):29-57.
- 11-Rebello RJ, Oring C, Knudsen KE, Loeb S, Johnson DC, Reiter RE et al. Prostate cancer. *Nature Reviews Disease Primers* 2021;2(9). Disponible en: <https://www.nature.com/articles/s41572-020-00243-0>
- 12-Shoji K, Takahiro K. Diagnosis and treatment of prostate adenocarcinoma. *Cancers* 2021;13(15):3600
- 13-Lerniabbbar-Aloqui H, Hassan O, Wei Yang Y, Buchanan P. Lung Cancer: biology and treatment options: *Biochim Biophys Acta* 2015;1856(2):189-210,
- 14-Chakrabarti S, Peterson CY, Sriram D, Mahipal A. Early stage colon cancer: current treatment standards, evolving paradigms and future directions. *World J. Gastrointest* 2020;12(8):808-832.
- 15-Swiecicki PL, Malloy KM, Worden FP. Advanced oropharyngeal squamous cell carcinoma: Pathogenesis, treatment and novel therapeutic approaches. *World J. Clin Oncol* 2016;7(1):15-26.
- 16-Bedros T, Ghada I, Raya S, Mark NJ, Nabil JK. Calcaneal osteosarcoma: a rare cause of heel pain in the pediatric population. *BMJ Case Report* 2013 Feb 4. Disponible en: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC36033626/>
- 17-Litao Y, Junwei Z, Jin C, Wendong W, Mingshu L, Xianfeng W et al. Primary tumors of the calcaneus (Review). *Oncology Letters* 2018;(April 13):8901-8914. Disponible en: <https://www.spandidos-publications.com/10.3892/ol2018.8487>.
- 18-Hampel PJ, Parikh SA. Chronic lymphocytic leukemia treatment algorithm 2022. *Blood Cancer Journal* 2022(12):161. Disponible en: <https://www.nature.com/articles/s41408-022-00756-9>
- 19-Razan M, Rémi D, Abdul HB, Malvi S, Rama AH, Ali B et al. Latest advances in the management of classical Hodgkin lymphoma: the era of novel therapies. *Blood Cancer Journal* 2021;11: Disponible en: <https://www.nature.com/articles/s41408-021-00518-z>
- 20-Ades F, Tryfonidis K, Zardavas D. The past and future of breast cancer treatment-from the papyrus to individualised treatment approaches. *Journal Artcles-ecancer* 2017. Disponible en: <https://ecancer.org/en/journal/article/746-the-past-and-future-of-breast-cancer-treatment-from-the-papyrus-to-individualised-treatment-approaches>.
- 21-Brunner M, Wu Z, Pilarsky C, Grutzmann R, Weber GF. Current Clinical Strategies of Pancreatic Cancer Treatment and Open Molecular Questions. *Int J Mol Sci* 2019;20(18):4543