HYPERTHERMIA WITH CLINICAL PHARMACOLOGY, PHYSICAL THERAPY, BEHAVIORAL THERAPY TO REDUCE THE TOXIC DAMAGE FROM CHEMOTHERAPEUTIC DRUGS AND IMPROVE THE QUALITY OF LIFE: ANTHROPOLOGICAL CONSIDERATIONS ON THE IMPORTANCE OF THE QUALITY OF LIFE IN ONCOLOGICAL PATIENTS.

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Every pill we take represents a delicate compromise between the promise of healing, the risk of side effects, an increasingly daunting price that all together increase the risks and damage in the social, occupational and economic development of every Nation.(1). One of the most difficult aspects of dealing with cancer is coping with the side effects of every treatment alone or combined. There are two principal types of cancer treatment in conventional use today: chemotherapy and radiation therapy. Each one poses unique challenges and adaptation pharmacological clinical problems for the associations between them, with respect to prevent dangerous side effects. The medications used in chemotherapy are very powerful and can greatly help some people. However, the use of chemotherapy requires a careful consideration of whether its potential effects on the disease outweigh its potential disruption to health. Chemotherapy must be given at precisely the right time in the course of a disease to maximize benefits and minimize side effects. Only a well-organized ward of Clinical Pharmacology of the Hospital, can monitor the pharmacokinetics of each chemotherapy alone or united to others drugs or together with other physical therapies and/or behavioral therapies, with the aim of reducing organ damage and side effects of every treatment. Today where and how chemotherapy is given varies, depending on which medications are used, and /or on the individual's condition. The treatment can be performed in a hospital, in an outpatient clinic, into a doctor's office, or even at home. The medications may be given in a single dose each day, continuously over several days, once a week, or once a month. A course of treatment can last from several weeks to several years, and may be repeated if necessary. All these conditions may increase the risk of drug toxicity or physical treatment toxicity, and require continuous monitoring of toxic and side effects of drugs used alone or in combination with others, in relation to their blood concentrations. Radiation therapy is part of conventional medicine's standard arsenal against cancer. It kills cells by promoting the formation of toxic free radicals, by- products of the use of oxygen in the body. The effects of radiation therapy are most pronounced in cells that are rapidly reproducing, such as cancer cells. The idea behind using this treatment is that more cancer cells than healthy cells are killed by the radiation. Radiation can help eradicate cancers of the oral and nasal cavities, tongue, and lips; small-cell lung cancer; some kinds of melanoma; early Hodgkin's disease;

and some early forms of non-Hodgkin's lymphoma. It is not usually helpful in treating bladder cancer, breast cancer, endometrial cancer, prostate cancer, lung cancer (other than small-cell lung cancer), or connective tissue sarcomas. Radiation therapy inevitably causes a number of side effects, including fatigue, nausea, headaches, loss of appetite, diarrhea, hair loss, and dry mouth or eyes. Different people experience different effects, depending on what part of the body is involved and how much radiation they receive. The side effects of radiation therapy may or may not be permanent, depending on the dose and the part of the body involved (2). Hyperthermia per se is probably only useful in palliative situations and has no role to play in the curative treatment of human tumors (3), unless extremely high thermal ablation temperatures can be achieved (4), there is definitive evidence that when hyperthermia is combined with other chemical or physical treatments significant improvements in clinical outcome are possible. This is especially true for the combination of heat and radiation (5), and in fact hyperthermia is probably one of the most effective radiation sensitizers known. For the National Cancer Institute, Hyperthermia (also called thermal therapy or thermotherapy) is a type of cancer treatment in which body tissue is exposed to high temperatures (up to 113°F). Research has shown that high temperatures can damage and kill cancer cells, usually with minimal injury to normal tissues (6), by damaging proteins and structures within cells (7). Hyperthermia alone and in combination with rational Clinical Pharmacology, appropriate Psychotherapy, and Physical therapy may shrink tumors (8-9-10-11-12), improve the quality and quantity of life, reduce health costs and, as a consequence of that, the overall economic expenditure. We think it is important to point out some anthropological considerations on the importance of the quality of life in cancer patients. According to Medical Anthropology, as to the quality and quantity of life, it is worth considering the sense of pain and sufferings so that the clinical and pharmacological discourse could be brought back to the man, understood as an indivisible reality of meanings. Bringing back the suffering being –the subject, neutral event, who takes on a specific expression of sense, namely the sufferance - to daily life, means creating a reassuring familiarity, a space that can stem the unusual, the odd, the unlimited produced by the disease, as far as is possible for someone who is steeped in contingency. In other words, it is necessary to turn the extraordinary into ordinary, since the disease is not a loss of sense, nor a total aphasia as opposed to the logo-sphere represented by daily-life, but it is rather production of a sense different from the usual one. This different sense, in people suffering from cancer, takes root in a different perception of one's own body - "Disease makes men more physical, it leaves them nothing but body", to quote Thomas Mann in his Magic Mountain - , a body which ill people on the one hand want to keep aloof from because it is the symbol of the precariousness of life, and on the other hand want desperately to get hold of (more than they ever did when they were healthy) because the anguishing feeling of being deprived of it, not only by the nearly carnal possibility of dying but also by its medical visibility, makes them deeply aware of their vulnerability. This latter refers to the anguish of the reification (from Latin res, thing) of the medical look, that is the perverse possibility that the doctor takes into account only the body-thing, the damage to be repaired, the single diseased organ instead of the whole suffering person (13-14-15-16-17-18-19-20-21-22-23-24-25-26).

Hyperthermia is under study in clinical trials and is not widely available. Studies of the Roman Hyperthermic School of Tor Vergata University - Italy, always attentive to scientific evolution to optimize

overall therapeutic and behavioral procedure, have shown significant positive clinical results in 15 years of Hyper-thermic treatments of different types of inoperable tumors.

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