

# **KEYWORDS**:

# **INTRODUCTION:**

The hypothesis about the effectiveness of citric acid (citrate) as a cancer treatment based on its natural effect of inhibiting glycolysis at the cellular level was published since March, 2007 in the journal Medical Hypotheses from Elsevier (1), and the scientific demonstration of this hypothesis was published after 2 years in the same journal (2), and I have already reported 13 cases of patients with cancer who have improved and literally have been cured only taking citric acid orally as part of the meta-analysis already published (3).

Based on the effect of citric acid as a glycolysis inhibitor at the mitochondrial level and its effect in cancer described since my first original work (1), I published the effectiveness of citric acid for metabolic diseases such as diabetes mellitus and neurological diseases such as multiple sclerosis (4), and I also published in a scientific article the effectiveness of citric acid in autoimmune diseases such as rheumatoid arthritis, vitiligo and ankylosing spondylitis (5).

This impressive evolutionary effect of citric acid (citrate) as part of the Krebs cycle and its regulatory action to inhibit glycolysis may explain the effect it has on weight loss, as described in the case report below.

#### CASE REPORT:

The clinical case is a 67-year-old male patient with overweight over 5 years of evolution with a weight average of 140 kg in all this time, I began to treat his wife of cancer with citric acid on October, 2016 and he decided to start taking it orally on January 25, 2017, 4 to 6 grams each day as is described for cancer treatment (6), his weight at that time was 138 kg and his laboratory studies in blood of thyroid hormones were normal and his profile of lipids including cholesterol were also normal at that time.

He continued his normal diet since January 25, 2017 and he did not change his food in any way; he began to feel weight loss from the first week of treatment with citric acid and 40 days after starting it he decreased 15 kg from his weight, with a total weight of 123 Kg, achieving a reduction of more than 10% in this period of time with only the treatment of citric acid that he received.

### **CONCLUSION:**

The report of this clinical case, although anecdotal, may open the possibility of initiating large-scale studies to demonstrate that citric acid is effective as a treatment for weight loss, particularly in overweight patients.

# DISCUSSION:

Citric acid is a food and is totally safe, which makes its therapeutic use ethical.

There are not conflicts of interest or financial disclosures.

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