Review of: "The role of pH in cancer biology and its impact on cellular repair, tumor markers, tumor stages, isoenzymes, and therapeutics"

Bubnovskaya Larissa

Potential competing interests: No potential competing interests to declare.

I am very grateful to the authors for raising the question of possible pH-dependent targeted therapy. This idea arose back in the 70-80s of the last century. At its origins stood the very famous German physicist Manfred von Ardenne. At that time, we were developing schemes for the use of hyperglycemia in combination with hyperthermia in oncology.

The authors took upon themselves the overwhelming task of covering in one review all the positions indicated in the title.: “The influence of pH on cellular repair, tumor markers, tumor development stages, and isoenzymes highlights the multifaceted nature of pH dynamics in cancer”.

The topic remains open-ended, and the review is presented as a superficial statement of known facts, accompanied by speculations of the authors, many of which are unprovable: possibly, may exist.., may become.., it may be possible.., … can be affected by pH, ..may activate the P53 enzyme.. pH gradient promises to inhibit cancer growth….

Therefore, a lot of questions arise.

The text contains vocabulary that is not accepted in medical literature: the body's cells… ..Larger organisms… to the outer ring… but errors in an alkaline environment, …this outer ring, an expanding alkaline intracellular ring may exist; intracellular outer ring rather….

It seems that the authors are not oncologists.

It is completely unacceptable to include “documented…case, including the first reported case of complete healing from metastatic triple-negative breast cancer in the bones in less than a month. [37]

“Glucosodiene”, which is at the very first stage of investigation, is not a drug and is not approved by the relevant authorities for clinical use. For a substance that has antitumor properties, it is necessary to create a medicinal form which then must pass through all the stages of testing that necessary for testing pharmacological drugs. Then there are several phases of clinical trials and only with positive results it may be recommended for use in the clinic. Therefore, it is not possible to use the substance on a patient from ethical reasons.

I couldn’t pass by reference (37), where it says,”…this property has been leveraged to develop glucosodiene molecules that induce tumor hyperthermia”.

It is not correct, you can not use this term. You have not provided the hyperthermia as such in your study. Hyperthermia may be conducted only in experiments in vivo or in clinic.

The authors should be wished not to abandon this very important topic. To divide the text into several reviews, using a much more extensive literature, analyze all the material and to present for the reader a complete picture of the state of affairs in the chosen issue.