

# The Effect of Zamzam Water on The Renal Carcinogenic Tissues of The Mammals

### Fatima Abdurrahman Alhomaid

Qassim University -Faculty of science-Biology department

#### Abstract

Zamzam water is authenticated as a great medicinal, curing many sicknesses. In this research, the effects of Zamzam water on renal carcinogenic tissues of mammals were investigated. Thirty-five male mice were divided into three main groups: The first group (control group) consisted of five mice. The second group (carcinogenic group with diethyl nitrosamine 1 ml of body weight) of normal food and plain water was served. The third group (carcinogenic group with diethyl nitrosamine 1 ml of body weight) of normal food and Zamzam water instead of plain water was served. The experiment took eight weeks to measure the effect of zamzam water in the renal tissues against plain water. All mice were placed in a well-ventilated place at a suitable temperature. Zamzam water has a protective role against the carcinogenic effect of diethyl nitrosamine in the third group.

Keywords: Zamzam water: renal, carcinogenic, diethyl nitrosamine, kidney markers.

#### Introduction

Water is essential in the performance of nearly all physiological functions in the human body.[1].2.8% of the world's capacity of water is considered fresh water. Although the percentage might be small, it keeps depleting. Zamzam water is a holy water well that provided water for billions of Muslims for thousands of years. Zamzam water was found to have distinctive features, such as its PH, unlike ordinary water, it was alkaline, had no signs of biological growth, and was rich in minerals, which gave it the advantage of being antioxidant. Besides this, Zamzam water was found to have less toxic material content than any other natural water source; it is lower in cadmium, arsenic, and lead.

The use of zamzam water to treat kidney cancer [5] has become one of the most serious concerns of public health committees [6], with nearly 14,770 deaths (9,820 men and 4,950 women) from this disease occurring only in the United States, so this research focus area was to find the effect of a nearly free source of treatment in such a great worldwide concern [7]. Diethyl nitrosamine (DEN), like many nitrosamines, is an extremely potent liver carcinogen in rats. A variety of DNA adducts have been identified, which are mutagenic to varying degrees [8,9].

# Methods:

The experiment was based on the randomized control trial method, with a single blind spot (the 15 rats with plain water content "placebo" ) done in 8 weeks as follows:

Thirty-five mice were collected and divided into three groups. The first group is the control group, which contained fine mice. The other thirty mice were divided into two groups, each of which had fifteen mice. Both of them were injected with carcinogenic material, which is diethyl nitrosamine, 1

mL of body weight. One of the two groups (named 2) just served plain water and normal food. The other group (named 3) served normal food but with Zamzam water instead of plain water. They waited for eight weeks to see the results of Zamzam water on the carcinoid kidney tissues, compared to the placebo group.

### Results and discussion:

After 8 months of uptake of the diethyl nitrosamine, the mice's kidney showed Chromophobe renal cell carcinoma is a distinct renal malignancy that comprises about 5% of all renal neoplasms in adults [10].

Grossly, the tumor is solitary, well circumscribed, pale yellow to brown and composed of medium sized to large cells arranged in nests, trabeculae, and solid sheets. Generally, no hemorrhage or necrosis is seen.

Chromophobe RCC can be mistaken for renal oncocytoma and clear cell RCC with eosinophilic cytoplasm. Because of differences in biologic behavior and prognosis, correct identification of this tumor is paramount (Fig. 1).

Degenerative changes in the renal tubule, including the proximal convoluted tubule (PCT), loop of Henle, and distal convoluted tubule (DCT), are observed during the first week of taking zamam water (Fig. 2).

There is congestion in the glomerulus and in the blood vessels in between the tubules (Fig. 3), then the congestion starts to be relieved during the second week in the form of severe congestion of the glomerulus and the peritubular vessels. Most of the nuclei disappeared, and the cortical tubules were affected (Fig. 4).

The relieving took place more in the renal medulla. The photo showed normal medullary tubules. They are lined by cuboidal cells with mostly spherical nuclei, and noticed the congested inter-tubular capillaries (Fig.5).

The result keeps getting brighter after one month of taking Zamzam water when the extravasated blood, congestion, and clear signs of degeneration in both the renal corpuscle and the cortical tubules are added to the severe congestion of the glomerulus and the peritubular vessels. Most of the nuclei disappeared and the cortical tubules were affected (Fig.6,7). Turned to clear kidney with just congested peritubular capillaries (Fig.8.).

After 6 weeks of taking Zamzam water, the photo showed great clearance, showing normal medullary tubules. Notice the congested peri-tubular capillaries in Fig. 9

Then, after 8 weeks of taking Zamzam water regularly, the result showed a normal structure of the renal cortex (Fig. 10). 8 weeks as shown The carcinoid kidney tissues reversed to normal, giving a bright result of giving up taking Zamzam water as a treatment for kidney cancer.

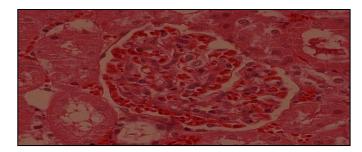


Figure:(1): Light photomicrograph of a section in the renal cortex showing severe degeneration of most of the cortical tubules as a sign of end stage renal cancer. X 40, H&E stain.

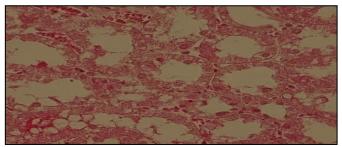


Figure (2): showing degenerative changes in the PCT and DCT . notice the congestion of the blood vessels in between the tubules. X 40 , H&E stain.

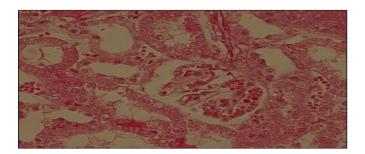


Figure (3): showing degenerative changes in the PCT and DCT . There is congestion of the glomerulus and in the blood vessels in between the tubules. X 40 , H&E stain.

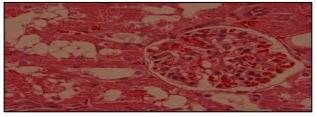


Figure (4) - show severe congestion of the glomerulus and the peritubular vessels. Most of the nuclei disappeared and the cortical tubules are affected. X 25, H&E stain

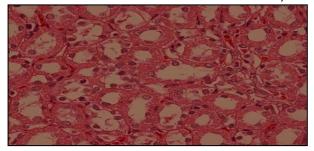


Figure (5) showing normal medullary tubules. They are lined by cuboidal cells with mostly spherical nuclei. Notice the congested inter-tubular capillaries. X 40, H&E stain

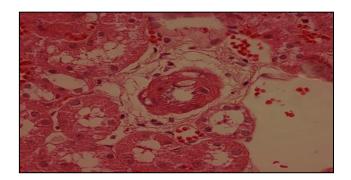


Figure (6) - showing extravasated blood, congestion and clear signs of degeneration in both the renal corpuscle and the cortical tubules. X 40 , H&E stain .

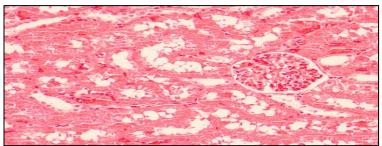


Figure (7):showing severe congestion of the glomerulus and the peritubular vessels. Most of the nuclei disappeared and the cortical tubules are affected. X 25, H&E stain

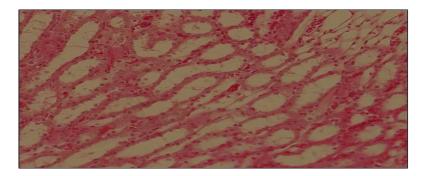


Figure (8): show congestion of the peritubular capillaries

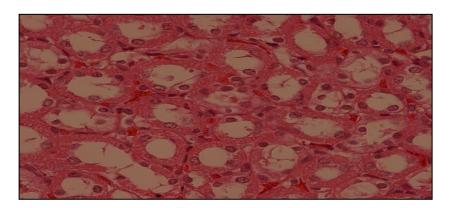


Figure (9): showing normal medullary tubules. Notice the congested peri-tubular capillaries

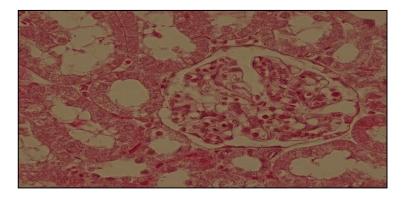


Figure (10): Light photomicrograph of a section showing normal structure of the renal cortex. X 40, H&E stain.

## **Conclusions and Recommendations:**

After 8 weeks of taking Zamzam water by the mice who had got kidney cancer, the result was bright and promising as the tissues kept improving from the dark point of end-stage renal cancer to an active, fully functional, and well-formed kidney.

As recommendations, we suggest having more collaboration between histopathologists in order to have a clear plat form of the active substances that have a major role in healing kidney cancer. After performing it on higher species, we suggest it as a cost-effective drung to this enigma of medical history

# References:

- 1- B. Cazier, V. GekasWater activity and its prediction: a review
- Int. J. Food Prop., 4 (2001), pp. 35-43
- 2- N. Khalid, A. Ahmad, S. Khalid, A. Ahmed, M. IrfanMineral composition and health functionality of zamzam water: a review
- Int. J. Food Prop., 17 (3) (2014), pp. 661-677
- 3- Zamzam water: Concentration of trace elements and other characteristics -Basem Shomar-https://www.researchgate.net/publication/51850529.
- 4- Vitamin and mineral requirements in human nutrition-World Health Organization and Food and Agriculture Organization of the United Nations 2004-ISBN 92 4 154612 3
- 5- In Vitro Cytotoxic and Anticancer Effects of Zamzam Water in Human Lung Cancer (A594) Cell Line Ulfat M. Omar, Huda A. Al Doghaither, Sawsan A. Rahimulddin, Shiekhah M. Al Zahrani, and Ayat B. Al-Ghafari- Published online 2017 Jun 30. doi: 10.21315/mjms2017.24.3.3
- 6-. https://www.ncbi.nlm.nih.gov/ Women's Health Research: Progress, Pitfalls, and Promise
- 7- Fifty Years of Progress in Chronic Disease Epidemiology and Control

Supplements Patrick L. Remington, Ross C. Brownson, - CDC October 7, 2011 / 60(04);70-77

- 8- Diethylnitrosamine- S.M. Cohen, in Comprehensive Toxicology, 2010- science direct
- 9- N-Nitrosodiethylamine mechanistic data and risk assessment: Bioactivation, DNA-adduct format ion, mutagenicity, and tumor initiation

Author links open overlay panelLynneVernaJohnWhysnerGary M.Williams - Pharmacology & Therapeutics

Volume 71, Issues 1–2, 1996, Pages 57-81

10- Chromophobe renal cell carcinoma of the kidney with neuroendocrine differentiation: A case report with review of literature Ghadeer A. Mokhtar and Reem Al-Zahrani- Urol Ann. 2015 Jul-Sep; 7(3): 383–386