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OUTTING-EDGE RESEAROH IN NATURAL HEALTH

How to use diagnostic technologies wisely and for the benefit of your health

In this review article, we focused on the potential health risks due to the steep rise of radiation exposure because of indiscriminate use of diagnostic methods such as X-rays, CT scans, mammograms and so on. In particular, children, young adults, and women have the highest risk of developing radiation-induced cancer in their lifetime.

The use of CT scans in the US has skyrocketed over the past three decades. Although radiation is harmful to all body organs, the breast, thyroid, bone marrow, digestive and reproductive organs are more radiosensitive due to continuous cellular growth activity. Repeated X rays, CT scans or mammograms do not necessarily add additional value to the patients' medical care, but these procedures certainly put them on a trajectory for cancer, heart disease, and genetic mutations to their future generations. Radiation exposure through a mammogram can sometimes be equal to 75 chest X-rays. Moreover, according to a recent 25-year study on 900,000 women, 22% of breast cancers in the mammography group were unnecessarily diagnosed and over treated, and otherwise might not have become dangerous in the woman's lifetime.

A comparative study in breast cancer detection between the US and UK found although the cancer detection rates were similar in both countries, false positive mammogram results and subsequent treatment rates were twice as high in the US. Considering the risk-benefit ratio, the recommendation of yearly mammograms for every woman over 40 should be evaluated on an individual basis. It would save thousands of women a lot of psychological pain and financial burden. While mammograms have helped in the detection of breast cancer, it is important that the results of mammograms should be evaluated by an experienced physician.

Since it is impossible to avoid radiation exposure all together, this review also addresses ways to protect the body by using appropriate micronutrients regularly. Micronutrients such as:

- Vitamins C and E in synergy with vitamin A, and NAC prevent the chromosomal damage and induce cell death in damaged cells, and therefore may be useful even when taken immediately after excessive radiation exposure.
- Green tea extract protects rapidly dividing cells of the digestive tract and protects the bone marrow cells.
- Quercetin and Curcumin (active ingredients in the spice, turmeric) protects mitochondrial DNA, and normal cells from radiation damage.

There are no clear guidelines about the frequency and requirements of regular CT scans, and mammograms to diagnose cancers and other diseases. An open discussion with the physician is the key for minimizing the health risks of these diagnostic tests. Additionally, intake of optimum micronutrients will give extra protection.