Condensed version and key points from the study:

Effects of drinking hydrogen-rich water on the quality of life of patients treated with radiotherapy for liver tumors

Study Overview

- A randomized, placebo-controlled study examining the effects of hydrogen-rich water on 49 patients receiving radiotherapy for malignant liver tumors. nih

Background / Rationale

- Cancer patients receiving radiotherapy often experience fatigue and impaired quality of life (QOL), with many side effects linked to increased oxidative stress and inflammation caused by reactive oxygen species generated during treatment.

- Hydrogen gas has known antioxidant and anti-inflammatory properties, making it a candidate for reducing these side effects.

How the Intervention Worked

- Hydrogen-rich water was produced by placing a metallic magnesium stick into drinking water, achieving a final hydrogen concentration of 0.55–0.65 mM. nih
- The Korean version of the EORTC QLQ-C30 instrument was used to evaluate global health status and QOL, while blood markers for reactive oxidative metabolites and biological antioxidant power were also assessed.

Key Results

- After 6 weeks, patients who consumed hydrogen-rich water showed reduced reactive oxygen metabolites in the blood and maintained blood oxidation potential.

- QOL scores during radiotherapy were significantly improved in the hydrogen-water group compared to the placebo group.
- Crucially, there was no difference in tumor response to radiotherapy between the two groups — meaning the hydrogen water did not interfere with cancer treatment effectiveness.

Condensed version and key points from the study:

Effects of drinking hydrogen-rich water on the quality of life of patients treated with radiotherapy for liver tumors

Conclusions

- Daily consumption of hydrogen-rich water is a potentially novel therapeutic strategy for improving quality of life after radiation exposure, reducing the biological reaction to radiation-induced oxidative stress without compromising anti-tumor effects.

Limitations to Keep in Mind

- The sample size was relatively small (49 patients).
- The study was published in 2011 and further research would be needed to confirm and expand these findings.
- It was conducted specifically on liver tumor patients, so results may not generalize to other cancer types.

PubMed

To Read The Full Study Please

CLICK HERE