

Modulation of the oxidative plasmatic state in gastroesophageal reflux disease with the addition of rich water molecular hydrogen: A new biological vision



Researchers wanted to answer:

Can hydrogen-rich water improve acid reflux symptoms and reduce oxidative stress in GERD? Their theory was that GERD is not only about stomach acid – it may also involve oxidative stress and inflammation, which can damage the esophagus and worsen symptoms.

How was the study done?

- 84 adults with GERD (acid reflux) Everyone received standard treatment with PPIs (proton pump inhibitors – acid-reducing medication) Participants were divided into two groups:

Control group

- PPI medication + regular tap water

Hydrogen group

- PPI medication + electrolyzed reduced water (ERW) rich in molecular hydrogen
- Treatment duration: 3 months.

What did they measure?

Researchers tracked: Heartburn symptoms. Regurgitation (acid coming back up) GERD quality-of-life questionnaire Blood markers of: oxidative stress, antioxidant status, inflammation-related cellular damage.

Including:

- d-ROMs → oxidative stress marker
- BAP (Biological Antioxidant Potential) → antioxidant capacity
- Nitric oxide
- Malondialdehyde (MDA) → marker of oxidative damage.

Main findings (simple version)

- ✓ GERD symptoms improved more. People drinking hydrogen-rich water had better improvement in heartburn and reflux symptoms compared with standard treatment alone.
- ✓ Quality of life improved. Participants reported feeling better overall with fewer reflux-related issues.
- ✓ Oxidative stress improved. Blood markers suggested a better antioxidant/oxidative balance in the hydrogen-water group.
- ✓ Symptoms and biomarkers correlated. As oxidative stress improved, reflux symptoms tended to improve too.

In plain English:

Less oxidative stress seemed to go hand-in-hand with less reflux discomfort.

This study suggests:

Hydrogen-rich water may help acid reflux symptoms when added to standard medication.



To Read The Full Study Please

