Milestone Study Shows Oral Supplement Setria® Glutathione Effectively Enhances Body's Most Important Protective Antioxidant

June 4, 2014
New York, NY
Long-Term Human Clinical Trial Data Now Available

A new long-term, randomized, double-blinded, placebo-controlled human clinical trial, published in the May issue of the *European Journal of Nutrition,* revealed for the first time that daily consumption of a Setria® Glutathione supplement was effective at increasing body stores of glutathione – an antioxidant generated within our bodies to help fight disease – combating long-held contrary beliefs.[1] Glutathione is a tripeptide that is naturally found in nearly all cells, tissues and organ systems in the body. It is also known as the "master antioxidant" due to its vast functions of antioxidant protection, detoxification and immune system fortification. But, for many reasons including age, prescription and OTC medication intake, health conditions, lifestyle, diet, weight and even time of day, the body's stores of glutathione may be in short supply. This six-month clinical trial – led by Dr. John P. Richie of Penn State University – evaluated the efficacy of Setria® Glutathione supplementation at enhancing body stores of glutathione, and the results show that glutathione supplementation may represent an effective intervention strategy to not only enhance body stores but also boost the body's immune function.[1]

Dr. Richie has studied glutathione for more than 25 years, and his body of research focuses primarily on fighting oxidative stress, which is a contributing factor to most fatal diseases. "It is well-known in the science community that glutathione is one of the primary protective molecules in the body; however, whether or not glutathione levels could be supplemented by oral glutathione administration has been hotly debated and clinical data has been lacking" said Dr. John P. Richie, Jr., Ph.D., Professor of Public Health Sciences and Pharmacology at Penn State University School of Medicine. "Now we have evidence to illustrate the potential benefit of glutathione supplementation on improved immune health, potentially decreased risk of cancer, and reduction of other diseases related to oxidative stress."

"Kyowa Hakko pioneered a fermentation technology that is used to manufacture amino acids, nucleic acids, vitamins and related compounds to dietary supplements," said Danielle Citrolo, PharmD, technical services manager at Kyowa Hakko USA, Inc. "We couldn't be more pleased about the publication of this study and its potential to help our customers. Even the healthiest individuals face environmental factors and toxins that can combat the positive effects of a well-rounded diet, and thus could benefit from an antioxidant supplementation, like Setria® Glutathione."

About the Study

- Trial measured effect of glutathione supplementation at 250 mg/day and 1000 mg/day on glutathione levels in different blood components and exfoliated buccal mucosal cells over a six month period.[1]
- Subjects were 54 healthy adults (41 females/13 males), 28-72 years of age (mean=46.6 years).[1]
- Results of the study showed glutathione levels in the blood increased after one, three and six months vs. baseline at both doses.[1]
- At six months, mean glutathione levels increased 30-35 percent in erythrocytes, plasma, and lymphocytes, and 260 percent in buccal cells in the high dose group ($P<0.05$).[1]
- Glutathione levels increased 17 and 29 percent in blood and erythrocytes, respectively, in the low dose group ($P<0.05$).[1]
- Natural killer cytotoxicity increased two fold in the high-dose group versus placebo at 3 months.[1]
- A reduction in oxidative stress in both glutathione dose groups was indicated by decreases in the oxidized to reduced glutathione ratio in whole blood after 6 months.[1]
- According to the study, the effects of glutathione supplementation on the levels of the glutathione precursor cysteine in plasma and the activity of the rate-limiting glutathione biosynthetic enzyme GCL in erythrocytes were examined after the six-month study period.[1] No changes were observed in cyst(e)ine concentrations or GCL activity in any of the groups.[1]

This study was supported by Kyowa Hakko USA, Inc. and Kyowa Hakko Bio. Ltd. Setria® Glutathione can be found in select supplement manufacturers. For more information visit www.setriaglutathione.com.

About Kyowa Hakko USA

Kyowa Hakko USA is the North American sales office for Kyowa Hakko Bio Co. Ltd., an international health ingredients manufacturer and world leader in the development, manufacturing and marketing of pharmaceuticals, nutraceuticals and food products. Kyowa is the maker of branded ingredients including Cognizin® Citicoline, Pantesin® Pantethine, Setria® Glutathione, as well as Sustamine® L-Alanyl-L-Glutamine. For more information, visit www.kyowa-usa.com.

References

[1] Richie JP Jr, Nichenametla S, Neidig W, Calcagnotto A, Haley JS, Schell TD, Muscat JE. Randomized controlled trial of oral glutathione supplementation on body stores of glutathione. Eur J Nutr. 2014 May 5. [Epub ahead of print] PubMed PMID: 24791752.