

Preparation and Anti-Fatigue Effect of Health Drink with Hot Water Extracts from *Artemisia capillaris*

Sung-Hye Park^{1)†} · Jong-Hyun Han¹⁾ · Ho-Sun Hwang²⁾,
Joon-Soo Kwak³⁾ · Seung-Hwa Baek⁴⁾ · Byung-Young Ahn⁵⁾

¹⁾Department of Herbal Resources, Professional Graduate of Oriental Medicine,
Wonkwang University

²⁾Maewon Food Company, ³⁾Department of Oriental Herb Sciences, Masan College

⁴⁾Department of Food Science and Biotechnology, Chungbuk Provincial University

⁵⁾Department of Life Science, Iksan National College

Artemisia capillaris, which has been used as oriental medicine area and folks remedy, was investigated for nutritional composition and effective substance (scopoletin) analysis. Also preparation of health drink with *Artemisia capillaris* and functional assessment. Meanwhile, let us sound *Artemisia capillaris* on possibility for applications in functional foods. *Artemisia capillaris* has been mainly cited in medical literature for its medicinal effects. Although the Korea Food and Drug Administration indicated *Artemisia capillaris* as the In-Jin-Sook which was allowed as a food stuff. According to this facts, we need develop functional beverage using In-Jin-Sook. Health drink was prepared with extract leaf and stem of hot water extract after hydrolysis with glucoamylase. Also using this beverage we conducted baseball player-oriented clinical assessment for anti-fatigue effect. Superior in protein, crude fiber, amino acid and fatty acid compositions to wild greens in Korean Nutritional Composition Table. Also scopoletin, get known to smooth muscle relaxation content was 326.13 $\mu\text{g/g}$. Health drink was revealed to have reasonable level on overall acceptance, flavor through sensory evaluation. Also serum lactate level was decreased and subjects had a good sleep. These results demonstrate that *Artemisia capillaris* has pharmaceutical effects and balanced nutritional contents. In according with *Artemisia capillaris* can be used as anti-fatigue substance and functional food material.

Key words : *Artemisia capillaris*, scopoletin, functional food, anti-fatigue effect, polyunsaturated fatty acid.