

Thesis Title The Effectiveness of Astaxanthin Cream Compared with Standard Cream Base to Improve Skin Moisturization and Reduction of Skin Wrinkle

Author Wanvisa Charoenwat

Degree Master of Science (Anti-Aging and Regenerative Medicine)

Advisor Lecturer Surapong Lookhanumanjao

ABSTRACT

Astaxanthin is potent antioxidant compared with vitamins and other antioxidants. Astaxanthin protects mitochondria from oxidation, anti-inflammation, reduce DNA damage and absorb UV light to prevent photo-oxidative damage that causing skin wrinkle and reduce skin moisturizer in aging population. A Prospective, Randomized, Double-blind, Experimental Clinical trial in 25 subjects, age greater than or equal 30 year olds in both male and female subjects. Apply astaxanthin cream in one side around eye and another side apply standard cream base. Then take a photo and measure skin moisturizer by Cutometer MPA 580, measure melanin pigment and skin erythema by Mexameter and measure skin wrinkle by The VISIA complexion Analysis System at week 0, 2, 4. Conclusion that Astaxanthin cream can increase skin moisturizer in 2 weeks and still increase skin moisturizer in 4 weeks ($p = 0.03$ and $p = 0.002$ respectively). Astaxanthin cream can decrease Melanin pigments in 2 weeks ($p = 0.02$) and decrease skin erythema in 4 weeks ($p = 0.01$). However Astaxanthin cream cannot decrease skin wrinkle in 2 weeks and 4 weeks ($p = 0.15$ and $p = 0.13$ respectively). The study found that Astaxanthin cream can reduce skin wrinkle but no statistically significant in 2 and 4 weeks ($p = 0.15$ and $p = 0.13$ respectively). The subjects reported satisfaction after study with statistically significant ($p = 0.0007$).

Keywords: Astaxanthin/Moisturization/Wrinkle/Cream