Skin aging is a complex process induced by both chronological and environmental factors. Chronological aging is mainly related to a decrease in the turnover rate of the epidermis and the collagen content. In addition to these physiological skin processes, environmental factors such as smoking and air pollution, can act on skin and promote cutaneous aging. Moreover, exposure to UV radiation (photo-aging) can lead to some evident skin changes such as solar lentigines and mottled pigmentation. Even if molecular mechanisms are still not completely understood, these aging factors seem to induce some defensive biological events in the body and the skin that result in the production of radical oxygen species (ROS) and oxidative stress status. In the last decade, several studies were carried out on antioxidant substance oral intake with the purpose of strengthening the antioxidant cutaneous tissue defenses. New ingredients also known as “beauty from within”, “beauty pills” or “oral cosmetics”, have gained increasing attention.

In the last years, clinical trials had demonstrated that red orange fruits extract (Red Orange Complex®) intake was able to counteract the body oxidative stress induced by environmental factors, that can affect physiological skin aging, such as smoking and air pollution (1). Moreover, other clinical trials showed that Red Orange Complex® can protect skin against UV-induced skin damage too (photo-aging) (2, 3). In these studies, skin of healthy volunteers was exposed to sunlamp to induce cutaneous insults such as erythema and hyperpigmentation (production of melanin in solar lentigines). In order to evaluate the UV-induced skin damages, quantification of the skin erythema and melanin contents were carried out using the reflectance spectrophotometry, a not invasive and objective instrumental technique (2,3). Results obtained in this study showed that Red Orange Complex® proved an efficient antioxidant protection against skin photo-damages (2, 3) and, in particular, it was able to induce a significantly reduction of skin erythema after oral supplementation (100 mg/die for 15 days) (2). Moreover, Red Orange Complex® intake can counteract the overproduction of melanin (tanning) induced by UV-exposure in solar spots, where a skin hyperpigmentation and an increase in melanosomes occurs (Figure 1). It was supposed that Red Orange Complex® intake was able to strengthen physiological defenses of the skin, protecting sunspots from the UV-induced stimulation of melanin production, leading to an improvement in skin appearance pigmentation.

In conclusion, scientific findings suggested that Red Orange Complex® might be considered as a natural help to maintain skin health and to improve its appearance and aspect.

References