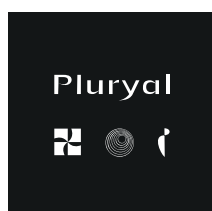


COMBINING ILLUSTRIOUS & MESOLINE® SHINE PRODUCTS IN TREATING HYPERPIGMENTATION



Marina Lekomtseva, MD

Case study

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Marina Lekomtseva, MD (Russia)
Dermatologist, Cosmetologist
Trainer for the NickOI Training Center
International Certified Pluryal Trainer

Pluryal Academy Member

TABLE OF CONTENTS

04	Introduction
05	The Illustrious product line
05	Mesoline® Shine
06	Clinical results

INTRODUCTION

Customers most often visit cosmetologists to treat pigmentation, caused by the UV rays. It is known that the UVA and UVB rays affect human skin. The latter cause redness (erythema) and are responsible for the formation of suntan; they penetrate into the tissue in small amounts (no more than 10%), and are mostly reflected by the stratum corneum of the epidermis.

UVA rays have the increasing rates of absorption by the skin (30%) and thus have a pronounced damaging effect, which is referred to as photo aging. Energy absorbed by the skin damages the proteins and nucleic acids exchange, contributes to the formation of reactive oxygen, and triggers lipid peroxidation, which leads to the protective hydro-lipidic mantle of the epidermis and cell membranes' damage. As a result, an inflammatory reaction in the skin is created supported by the inflammatory cytokines, secreted by the cells of the stratum corneum in response to UV radiation.

As a result the epidermis in general, and the stratum corneum in particular begin to thicken, which often happens unevenly, violating the processes of cell differentiation. However, not only does the epidermis suffer, but also the dermis, in which the metalloproteinases (MMP) are activated, causing destruction of the intercellular substance. An inflammatory reaction occurs, forming solar elastosis, which changes the structure of the elastic fibers and reduces their number. The detrimental effect of the sun affects the vascular system of the skin as well, resulting in damage to the capillaries.

Thus, exposure of the epidermis and dermis to solar energy results in the inflammation that ultimately leads to the development of photo aging and hyperpigmentation. The same process is at the heart of post-inflammatory pigmentation, emerging as a result of aggressive cosmetic procedures (peeling, injections and use of cosmetic equipment): melanocytes respond to the inflammation by producing melanin. Interestingly, not only the final product of this synthesis – the melanin polymer – has protective abilities, but also the reaction of the synthesis itself, as melanin precursors have a very powerful antioxidant effect that neutralizes manifestations of oxidative stress accompanying inflammation.

The combination of mesotherapy and care procedures for the correction of hyperpigmentation allows the specialist to work on several levels, ensuring rapid and pronounced effect.

Besides, the main problems to be solved are the elimination of provoking photo aging factors; affecting the melanocytes and keratinocytes; correcting the oxidative stress with antioxidants; normalizing of the development and transfer of melanin; protecting the skin from sun exposure by using sunscreen agents.

Experts of the NickOI Center developed a combined program that includes the use of the **Illustrious** product line by Christina Cosmetics to brighten and rejuvenate the skin and the **Mesoline® Shine** meso-cocktail by Pluryal from MD Skin Solutions (Luxembourg).

THE ILLUSTRIOUS PRODUCT LINE

Have the threefold effect on the skin:

Correcting the signs of aging due to the active form of vitamin C to stimulate collagen synthesis and fibroblast activity;

Preventing the appearance of hyperpigmentation by normalizing the melanin synthesis process;

Caring for the skin, restoring its tone and improving its appearance.

Indications for the treatment and the supporting home care using Illustrious include hyperpigmentation, uneven skin tone, sun damage, thickening of the epidermis due to the chrono- and photo-aging, "smoker's skin", "tired" skin, post-acne, rosacea. In the course of the procedure the products exfoliate dead cells, deeply cleanse pores, lighten skin, saturate it with oxygen, moisturize and tone. In addition, long-term results of the procedure include the improvement of the skin immunity and the increase in its protective function, the acceleration of basal cell mitosis, antioxidant effects, the sebaceous glands secretory activity regulation and strengthening the capillary walls.

MESOLINE® SHINE

It is intended for the correction of all types of pigment spots (melasma, freckles, post-acne, and age-related pigmentation, etc.), balancing the skin tone and enhancing its radiance. It may be injected into the skin of the face, neck and other areas damaged by the UV-rays or other aggressive influences.

Mesoline® Shine contains five ingredients needed for correcting hyperpigmentation and skin regeneration (after exposure to adverse environmental factors, sun exposure, smoking): vitamin C and four clarifying components – kojic, phytic and pyruvic acids, and the white mulberry extract (*Morus alba*).

Ascorbic acid has clarifying and antioxidative activity, disrupts melanization processes by interacting with copper ions in the activity zone of tyrosinase and decreasing the dopahion hydrobromide and 5, 6-dihydroxyindole-2-carboxylic acid (DHICA) oxidation. Due to the known instability of ascorbic acid is particularly effective when administered by injection. Ascorbic acid also stimulates collagen synthesis, making it one of the primary anti-aging ingredients.

Kojic acid is a safe and effective lightening active. As the fungi metabolism product, kojic acid inhibits the activity of tyrosinase – an essential enzyme, limiting the speed of the melanin pigment biosynthesis. Studies have shown that melanocytes treated with kojic acid reduced the number of dendrites and lowered their melanin content. Is effective for correction of hyperpigmentation, especially melasma.



Phytic acid is an antioxidant with lightening and anti-inflammatory properties. It slows down responsible for skin pigmentation processes involving tyrosinase and has anti-inflammatory and antioxidant properties as well, which are important for maintaining healthy skin.

Pyruvic acid is an alpha-keto-acid, which has anti-microbial, lightening, sebostatic and keratolytic properties. It stimulates the production of collagen and the elastin fiber formation. These properties make this acid an important element in acne, clogged pores and surface hyperpigmentation correction. Numerous studies have confirmed its effectiveness in treating photo-damaged skin and skin with melasma.

The white mulberry extract (Morus alba) exhibits antioxidant and lightning activity, as confirmed by the in vitro studies. It inhibits the tyrosinase activity, which converts the transition of dihydroxyphenylalanine (DOPA) in dopachrome into the melanin biosynthesis. It promotes the recycling of superoxide radicals involved in protecting the skin from autoxidation.

Mesoline® Shine normalizes melanin production, lightens hyperpigmentation; stimulates fibroblasts, increases collagen and elastin synthesis; improves the immunity of the skin and its protective functions; accelerates basal cell mitosis; has antioxidant effects; strengthens capillary walls. Possible areas of applications include face, neck, décolleté, and dorsum of the hands. It is recommended to use 5 ml (1 vial) per procedure. Injection technique: surface nappage. Procedure frequency – 1 session every 7-10 days, the course includes 4-8 procedures.

CLINICAL RESULTS

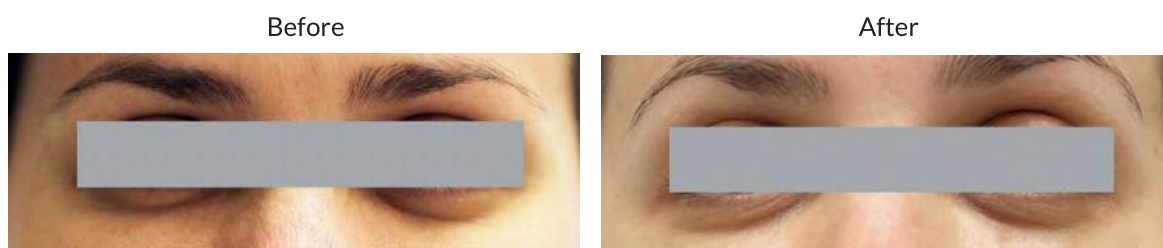
1. Patient O., 32 years old, with a complication after a chemical peel - periorbital hyperpigmentation (December 2014):

Three Illustrious procedures were performed (24.04., 08.05., 18.05), immediately followed by the Mesoline® Shine injections.

At home care:

Illustrious products: Eye cream with SPF 15, Day cream with SPF 50, Night cream.

The combined treatment resulted in: improved complexion and skin tone, increased hydration and elasticity, a significant decrease in the intensity of periorbital pigmentation, reducing the severity of small periorbital wrinkles, strengthened blood vessels.



2. Patient E., 52 years old, complained about the appearance of age spots formed after a trip to Egypt in January 2015.

Procedures performed:

27.04. Mesoline® Shine;

30.04. Wish (the program for correcting aging skin problems);

5.05. Illustrious, Mesoline® Shine;

12.05. Mesoline® Shine;

18.05. Wish, Mesoline® Shine.

At home care:

Illustrious products: Eye cream with SPF 15, Day cream with SPF 50.

Wish products: Night cream, Rejuvenating Serum.

Improved complexion; lightening of the age spots, improved hydration and elasticity; strengthened blood vessels and evening out the stratum corneum.



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MD Skin Solutions

9AB Boulevard du Prince Henri

L-1724 Luxembourg

T: +352 26 20 04 06

pluryal.com