15% Glycolic acid chemical peeling for periorbital dark circle

Introduction: Periorbital dark circle is a common condition that involves darkening of the upper and lower eyelid skin. Dark circles are caused by multiple etiologic factors that include dermal postinflammatory hyperpigmentation, dermal melanin deposition, superficial location of vasculature, periorbital edema, and shadowing due to skin laxity. It is often refractory to treatment. Multiple treatment modalities have been used for periorbital hyperpigmentation with unsatisfactory result.

Case: A 28 years-old Javanese female came with chief complaint of dark circles around her eyes. She had a personal history of atopy. Dermatological examination revealed bilateral periorbital hyperpigmented patch with thickening and fine lines involving her upper and lower eyelids. Pre-peel treatment with 8% glycolic acid once daily and sunblock SPF33 were given since 2 weeks before peeling treatment. 15% glycolic acid chemical peeling was performed. After two series 3-weekly interval chemical peeling, there was improvement in hyperpigmentation of 25-50% Physician Global Assessment and scored 3 in patient's Visual Analog Scale. No side effect was noted.

Discussion: Periorbital dark circle due to atopic dermatitis are believed to be caused by accumulation of fluid due to facial allergy, rubbing and scratching the skin around the eyes. Glycolic acid may contribute through various ways, as anti-inflammatory, keratolytic, and antioxidant effects. Glycolic acid accelerates collagen synthesis, decreasing Ca ion and modulates matrix degradation.

Biography

Sinta Murlistyarini has concluded her Medical studies in 2006, and has specialized in Dermatovenereology in 2011 from School of Medicine of Universitas Diponegoro Semarang Indonesia. Since 2012, she opened her own outpatient private clinic for Dermatovenereology in Malang, Indonesia. She became a Lecturer at Dermatovenereology Department, School of Medicine Universitas Brawijaya and Dr. Saiful Anwar General Hospital, Malang, Indonesia since 2012. She now is the Head of Cosmetic Dermatology Department at Dermatovenereology Department School of Medicine, Universitas Brawijaya Malang.

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