Cosmetic Concerns Among Ethnic Men

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INTRODUCTION

The demand for cosmetic procedures is on the increase in the male population of all ethnic groups. According to the latest statistics from the American Society for Aesthetic Plastic Surgery, more than 1,000,000 cosmetic procedures (both invasive and minimally invasive) were performed in men in 2015, and 25% of the individuals undergoing treatments were men of color. Although no standard classification system exists for skin of color, it is common for physicians to use the Fitzpatrick skin types categories, originally developed to describe the response to UV light in phototherapy. Using the Fitzpatrick system, olive/beige tones are classified as type IV, brown skin as type V, and black skin as type VI. In the United States, people from Africa, the Caribbean, Asia, Pacific Islands, Latin America, Native Americans, Latino, Hispanics, Indians, and those of Middle Eastern origin are considered to have ethnic skin.

There is a paucity of clinical data and studies specifically examining cosmetic concerns in ethnic men, given that this is a growing population with distinct needs regarding gender and skin physiology, it is important for dermatologists to be aware how to treat, counsel, and address the needs of this patient cohort. In fact, a survey conducted in dermatologists in Australia showed that 85% of participants were not confident in managing common cosmetic issues in skin of color, and more than 80% stated they would have liked more teaching in skin of color.1

The skin pathophysiology in ethnic individuals has biological differences when compared with fair skin that affect cosmetic treatment needs. Because of the increased melanin, patients with darker skin have inherent protection against extrinsic factors of aging such as damage from UV, and photoaging appears decades later compared with those with lighter skin tones. Photodamage is typically manifested as pigmented aberrations (lentigines, macules, melasma) rather than rhytides. Moreover, facial aging in patients of color is due to volume loss from deeper muscular layers than dermal layers. Perioral and periorbital lines may not occur as early in patients of color, but there is a tendency toward mid and lower face aging, with manifestations including the formation of nasolabial folds and sagging of the jowl.2,3 Skin of patients of color also have thicker more compact dermis and stratum corneum with more cornified layers.4

Hair structure is also different in patients of color patients. Black individuals have flat elliptical-shaped hair shafts with curved hair follicles, and

Disclosure: M. Henry has nothing to disclose.
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Dermatol Clin 36 (2018) 11–16
https://doi.org/10.1016/j.det.2017.09.002
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fewer elastic fibers anchoring hair follicles to the dermis, whereas the Asian hair shaft is round with the largest cross-sectional area.\textsuperscript{5,6} Aside from the differences in skin pathophysiology and anatomy in patients of color, there are profound cultural differences that dictate cosmetic concerns, habits, and goals. Ethnic men have historically been hesitant to pursue cosmetic treatments because of fears of being viewed as rejecting their racial identity. As techniques have advanced, and physicians have developed a nuanced and culturally/gender-sensitive approach to beauty, ethnic men can now share cosmetic goals similar to their Caucasian counterpart men. Enhancing physical appearance and combating aging is a shared goal because it is tied to personal success in life.

### ANTIAGING TREATMENTS FOR ETHNIC MEN

Restoring a youthful appearance is a common goal of ethnic men, and dermatologists can offer several treatment options either as monotherapy or in a combination approach. Energy-based devices such as those that harness energy from laser/lights and radiofrequency in combination with fillers/neurotoxins and topical cosmeceuticals can reduce the appearance of wrinkles, pore size, and laxity and replete any areas of volume loss.

#### Lasers

Nonablative fractional laser resurfacing can be considered among first-line therapy for the reduction of fine lines and wrinkling, textural abnormalities, and pore size in ethnic male patients, because it has an excellent safety profile and short downtime. Fractional photothermolysis creates microscopic columns of thermal injury that have a diameter ranging from 100 to 160 $\mu$m with a depth of penetration 300 to 700 $\mu$m. Because epidermal and follicular structures are spared and melanin is not at risk of targeted destruction, nonablative fractional laser resurfacing can be used successfully in patients with skin of color. Suitable candidates include those with mild/moderate photodamage acne scarring and striae. Caution should be taken in patients with melasma or keloid scars. An ideal treatment regimen has been shown to typically include a series of 4 to 6 treatments with low densities allowing for adequate recovery between sessions. Often pretreatment and posttreatment with hydroquinone-containing creams are useful to prevent hyperpigmentation.

In a retrospective review of 362 patients undergoing nonablative fractional laser treatments with either 1550-nm erbium or 1927-nm thulium fiber laser, postinflammatory hyperpigmentation occurred in only 1.1% of patients, whereas worsening of melasma was noted in 0.9% of cases.\textsuperscript{7} Kono and colleagues\textsuperscript{8} also demonstrated the safety and efficacy of nonablative fractional 1550 nm laser in patients of color, noting that patient satisfaction was higher when their skin is treated with high fluences than with high densities. Another study using the fractionated nonablative 1440-nm laser in 20 patients (skin types I-VI) showed that 6 treatments were generally required to achieve a significant reduction in pore size.\textsuperscript{9}

#### Radiofrequency

Radiofrequency devices that emit thermal energy to the dermal layers of the skin can stimulate wound-healing mechanisms promoting collagen production and remodeling that ultimately leads to skin rejuvenation. Radiofrequency treatments are safe for all skin types because thermal energy is chromophore independent; thus epidermal melanin is not at risk of destruction. Early generations of radiofrequency devices such as the monopolar Thermage (Solta, Hayward, CA, USA) have been shown to be effective in improving periorbital and jowl laxity in patients of darker skin types.\textsuperscript{10} More recently, new generations of technologies, such as that of fractional microneedle radiofrequency, have also been tested for skin rejuvenation in dark skinned patients. Subjects receiving 3 treatments of fractionated microneedle radiofrequency at 4-week intervals experienced clinical improvement in areas such as periorbital wrinkling and high patient satisfaction at the 6-month follow-up.\textsuperscript{11}

#### Microfocused Ultrasound

Microfocused ultrasound technologies (MFU) deliver ultrasound energy to the reticular dermis, and by producing microcoagulation zones, stimulate denaturation, collagen remodeling, and skin rejuvenation without influencing the epidermal layer. Because the energy is not selectively absorbed by chromophores, MFU is safe for darker complexions that have excess laxity. A recent clinical study demonstrated the safety and efficacy of MFU for improving laxity of the skin of the face and neck in 52 adults with Fitzpatrick skin types III to VI. No adverse events were reported, and side effects including erythema self-resolved in the weeks following treatment.\textsuperscript{12}

#### Toxins

Brow furrows, glabellar creases, and crow’s feet resulting from hyperfunctional facial muscles manifests equally in men and women of all races.
Moreover, although men seek treatments with neurotoxins to appear more relaxed and youthful, there is also a need for conservative treatments and preservation of some movement to attain a natural appearance and avoid feminization. Prominent and full male eyebrows without a significant arch enhance masculinity. Thus, regardless of race, treatment with neurotoxins should preserve a lower position of the brows and a flatter arch. Botulinum toxin-A is the most common neurotoxin used for the relaxation of glabellar frown lines and off-label for relaxation of the upper and lower hyperkinetic muscles in patients of color.\textsuperscript{13,14} Treatments with toxins should precede at least 2 weeks before treatments with fillers because injections with botulinum toxin can reduce the amount of fillers needed to correct creases and folds. A common goal specific to Asians is the desire to achieve a more open eyelid, and clinically this can be achieved by injecting 1 to 2 units of botulinum toxin-A into the mid lower lid that preserves the shape of the Asian but opens the eye slightly.\textsuperscript{15}

**Fillers**

As mentioned earlier, although people of darker skin have thicker dermis and less perioral/periorbital rhytides, they do experience age-related muscle and volume loss, thus often seek treatments for volume repletion. Because of the reduced rate of collagen degradation in ethnic skin and the collagen-stimulating properties of new generation fillers, fewer treatments are usually necessary to achieve desired volume restoration. The most common fillers used in men include calcium hydroxylapatite (Radiesse; Merz Aesthetics, Raleigh, NC, USA), poly-L-lactic acid (Galdersma, Fort Worth, TX, USA), and hyaluronic acid (Juvederm; Allergan, Parsippany-Troy Hills, NJ, USA) (Fig. 1). When injecting fillers in skin of color, one of the most important technical considerations is minimizing the use of multiple puncture techniques. In a clinical trial of 150 patients (skin types IV–VI), multiple puncture technique was associated with a 13% incidence of hyperpigmentation compared with lineal threading technique, whereby the incidence of hyperpigmentation was merely 2%. Adverse effects such as postinflammatory hyperpigmentation and ecchymosis can be reduced with slower injection rates.\textsuperscript{16,17}

**SKIN TONE AND PIGMENTATION DISORDERS**

Treating uneven skin tone and disorders of pigmentation, including postinflammatory hyperpigmentation and melasma, are particularly concerning in men of color. The prevalence of melasma in men has been estimated to approximately 20%, and it is generally recognized to be more common in individuals with Fitzpatrick skin types IV–VI.\textsuperscript{18} Treatment of melasma or pigmen tary disorders is generally similar for both genders and includes modalities such as topical medications, chemical peels, lasers, and light treatment. When treating men, however, it is important to consider there is a tendency for men to invest in simple, quick therapeutic strategies and that they are less compliant to approaches that entail incorporating multistep therapies in their daily routine. As melasma and similar pigmentary disorders are generally recognized to be caused by melanocyte overactivation, sun avoidance and rigorous application of sunscreen containing sun protection factor 30 or greater are a must. Men need to be counseled and understand that photoprotection underscores all treatment modalities for disorders of pigmentation, and without photoprotection, minimal benefit will be seen with any other therapeutic option.

Topical agents that have been successfully used for melasma and hyperpigmentary disorders include hydroquinone, azelaic acid, topical corticosteroid, kojic acid, arbutin, licorice extract, ascorbic acid, soy, and chemical peeling (glycolic acid, salicylic acid, trichloroacetic acid, retinoic acid).\textsuperscript{19} Cosmeceutical formulations can be beneficial in darker skin for issues of uneven color and hyperpigmentation, such as Lytera (SkinMedica) and Phloretin (SkinCeuticals), a topical vitamin C product that is particularly well suited for deeper skin tones. Positive results have also been noted with the nutraceutical *Polypodium Leucotomos*, an oral antioxidant that has been shown to inhibit melanogenesis and can be safety consumed by patients of all skin types as monotherapy or for synergy with topical/energy-based treatments. Tranexamic acid has also been proven efficacious in reducing pigmentary conditions like melasma.
Energy-based devices such as lasers and radio-frequency can also be beneficial for pigmentation disorders, but caution needs to be exercised when choosing the settings to prevent hypopigmentation, postinflammatory hyperpigmentation. Lasers with longer wavelengths such as the neodymium-doped yttrium aluminum garnet (Nd:YAG) 1064 nm laser can penetrate and target deep dermal melanin while sparing the epidermal normal melanin.20,21 Picosecond lasers are also emerging as a new class of lasers that can be safe for dark skin because they destroy melanocytes via high-pressure photoacoustic effect, thus decreasing the thermal damage on surrounding structures22 (Fig. 2).

Fractionated microneedle radiofrequency has also been recently reported to be effective in treating pigment issues in skin of color, either as a monotherapy or as a means of transdermal delivery of topicals. By creating zones of microablation in the deep dermis, these devices can improve texture, tone, and color in all skin types. Because melanin is not a target of the device, there is little to no risk of hyperpigmentation unless multiple pass treatments are used, thus inducing too high levels of ablation. A prospective randomized study comparing tranexamic acid microinjections to microneedling followed by topical tranexamic acid application in 60 patients (Fitzpatrick skin type IV–V) with moderate to severe melasma showed that the combination of microneedling with tranexamic acid was superior in improving the Melasma Area Severity Index score with no adverse effects reported.23

ACNE AND OTHER SCARRING

One of the most frequent dermatologic disorders observed in ethnic patients is acne, and in black patients, this condition is often accompanied by postinflammatory hyperpigmentation and scarring.24,25 Moreover, likely because of increased fibroblast in the dermis, ethnic skin is more prone to hypertrophic scarring following injury, and keloid scar formation is reported to be 5 to 15 times higher in African Americans compared with the white population.26,27 Treatment modalities for acne scars are similar for both men and women of darker skin types and include chemical peels, microneedling, energy-based devices, and fillers. A study in 50 patients (skin types III–VI) showed that after 3 monthly microneedling sessions there was a statistically significant improvement of acne scars with no adverse effects reported.28 Nonablative fractional lasers such as the 1440-nm Nd:YAG, 1550-nm Er:YAG laser, and 1927-nm thulium fiber laser can treat acne scars and rejuvenate the skin, but the results have been proven moderate for ethnic skin because of the conservative settings used to prevent pigmentation-related adverse effects.29 According to the investigators’ experience, one of the most successful strategies to reduce the appearance of scarring is the combination of fractionated microneedle radiofrequency with a permanent filler such as Bellafill (Suneva, Santa Barbara, CA, USA)30,31 (Fig. 3). Microneedle radiofrequency can treat acne scarring through stimulating dermal remodeling and production of dermal components with minimal risk of dyspigmentation in patients with skin of color, whereas the US Food and Drug Administration–approved for acne scar filler Bellafill can seal areas of excess grooving and ridging.

HAIR DISORDERS

The differences in some ethnic men’s hair structure paired with grooming habits have implications on the development of hair disorders, including pseudofolliculitis barbae and acne keloidalis nuchae. This is more commonly seen in men of African descent.

Pseudofolliculitis Barbae

This condition is a chronic noninfectious inflammatory condition prevalent in ethnic men. Clinical features include follicular and/or perifollicular

Fig. 2. A 44-year old man (skin type IV) before (left) and 12 months after (right) 2 treatment with 1064-nm picosecond laser. (Courtesy of Cutera Medical, Brisbane, CA.)

Fig. 3. A 30-year old (skin type IV) before (A left) and 6 months after (B right) 4 Tx with fractional microneedle radiofrequency. (Courtesy of Sadick Dermatology, New York.)
papules in the neck, chin, and sometimes the cheek area. Symptoms of pseudofolliculitis barbae include pain during or after shaving, itching, stinging, and diffuse pain on the skin. Although this condition was attributed to shaving habits, it is increasingly recognized to have a genetic basis. Simple changes in shaving routine have proven to decrease flaring of the condition, including use of a single blade razor, premoisturizing of shaving area, and hydration after shaving. In more severe cases where therapeutic intervention is necessary, various strategies have been successfully used, such as laser hair removal. The safest lasers for treating ethnic skin with pseudofolliculitis barbae is the long-pulse 1064-nm Nd:YAG laser, used with conservative settings (lower fluences and longer pulse durations) (Fig. 4). A study in 22 men (skin types IV–VI) with pseudofolliculitis barbae refractory to conservative therapy receiving 5 weekly treatments using 1064-nm Nd:YAG laser (12 J/cm², 20 ms, 10-mm spot size) demonstrated that 83% of patients had global improvement in the markers evaluated (dyspigmentation, papule count, cobblestoning) with no adverse effects.32

**Acne Keloidalis Nuchae**

This chronic condition is characterized by papules, pustules, and sometimes tumorous masses in the posterior region of the scalp.

Treatment strategies include topical steroids, systemic agents (antibiotics, retinoids), surgery, and recently, laser/light devices. Treatment with 1064-nm Nd:YAG and the 810-nm diode lasers have been found useful in reducing lesion count and size in patients with this condition by destroying the hair follicles within the lesions and reducing the inflammation.33 Aside from treatment, change in hair care practices such as the use of electric clippers to groom the hair short, often seen in men of African ancestry, might play a role in reducing flare-ups. Mechanical factors, such as the friction from electric clippers, can exacerbate the condition; thus physicians should advise to decrease the use of anything that would create friction and aggravate papules on the back of the scalp.

Fig. 4. 36-year old man (skin type VI) before (left) and 12 months after (right) 4 Tx with long pulsed 1064-nm Nd:YAG. (Courtesy of Cutera Medical, Brisbane, CA.)

**SUMMARY**

Ethnic men are an emerging patient cohort that seeks and invests in treatments to improve various aspects of their appearance, including but not limited to skin tone, texture, signs of aging, and hair disorders. Although these patients present inherent nuances and require that the treating physician is sensitized to their specific needs. There is now a plethora of treatment options available for these patients that are both effective and safe for their skin tone. Nevertheless, as the focus thus far when it comes to aesthetics has been dominated by the female gender, it is important that more clinical studies are tailored to evaluate specific technical protocols and regimes for ethnic men to provide better clinical care and meet to their needs more thoroughly.

**REFERENCES**


