Evaluation of the Cosmetic Patient

(Bologna chapters 152, 153, 158, 159)

Rebecca Vasquez, MD
Assistant Professor
UT Southwestern Medical Center
Recognizing Beauty
Personal beauty is a greater recommendation than any letter of reference – Aristotle

Beauty is power; a smile is its sword – Charles Reade

Beauty is only skin deep, but it’s a valuable asset if you’re poor or haven’t any sense. – Kin Hubbard

Beauty is worse than wine, it intoxicates both the holder and beholder – Immermann
Ideal Face

Divided into 3 equal parts

Ideal face proportions:

Symmetric, oval- or heart-shaped face with prominent cheekbones, taper jaw line, narrow nasal base and thin lips

Proportions, however, are largely based on facial features in Caucasian women

Ethnic variations may exist
Face Variations by Sex
HOW TO PICK THE BEST HAIRSTYLE FOR YOUR FACE SHAPE

To find your optimal hairstyle, it's important to consider the shape of your face. This simple guide should help you find the right cut to complement your natural good looks.

ROUND

Square styles will offset roundness, as will height or volume. Keep sides shorter. Try an off-center part.

SQUARE

Short, tight styles nicely accentuate prominent bone structure. Add a little volume up top, and avoid parting down the center.

OBLONG

Styles that have the same length on the sides and top will offset the length of your face. Short and medium styles will work best.

DIAMOND

Try layered and high-volume styles to minimize wide cheekbones. As an alternative, swept bangs also work especially well.

TRIANGULAR

Try a mid-length style with an offset part or swept bangs; this will minimize forehead width.

OVAL

Most styles work because of the ideal symmetry. Try anything except bangs.
Understanding Motivation

**Red flags**

- Unrealistic expectations ("Snapchat Dysmorphia")
- Unreasonable demands
- Cosmetic concerns out of proportion to clinical examination findings
- Overfamiliarity with the physician/surgeon
- Overly and unreasonably critical of other colleagues
- Inappropriate flattery toward the physician/surgeon
- Rudeness to clinic staff
- Lengthy list of questions often derived from the internet
- The patient has already decided on the surgical procedure(s) he or she requires
- Impatience
- Late for appointments but still expects full consultation time
- Demand for surgery without respecting a period of reflection

*The temptation to operate on or treat such a patient should be strongly resisted.*

“Snapchat Dysmorphia”

• Survey at 2017 annual American Academy of Facial Plastic and Reconstructive Surgery survey found 55% of surgeons reported seeing patients who requested surgery to improve their appearance in selfies.

• Frequent selfie viewing behavior correlated with **lower self-esteem** and **decreased life satisfaction**, which may lead to **body dysmorphic disorder**.

• These findings highlight the adverse effects of social media on self-esteem and emphasize the need to better assess how social media use influences attitudes toward cosmetic surgery.

Understanding Motivation

• Multicenter prospective observational study
• Included participants (n=511) seeking cosmetic procedures from 2 academic and 11 private dermatology practices across the US
• Typical respondents were female (440 [86.1%]), 45 years or older (286 [56.0%]), white (386 [75.5%]), and college educated (469 [91.8%]) and had previously received at least 2 cosmetic procedures (270 [52.8%]).
• Survey study about their motivation to seek cosmetic treatment prior to consultation
• Results
  • Most reported seeking procedures for an existing condition rather than preventative (most commonly citing a desire to look younger or fresher [83%])
  • More individuals stated that wanted to look better/prettier for themselves than for others (88.5%)
  • When asked whose idea it was to pursue treatment, 44% reported themselves and 23.5% the physician (only 2.3% stated idea came from spouse or partner)
• According to this study, most individuals seeking cosmetic procedures are self-motivated and desire to treat existing skin problems rather than prevent future skin conditions
• Understanding an individual’s motivation can allow a clinician to better counsel an individual and set realistic expectations for desired procedures

<table>
<thead>
<tr>
<th>Causes of Cutaneous Defects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chronologic aging</strong></td>
</tr>
<tr>
<td>• Loss of subcutaneous fat</td>
</tr>
<tr>
<td>• Gravity</td>
</tr>
<tr>
<td><strong>Photodamage</strong></td>
</tr>
<tr>
<td>• Degradation of collagen, elastin, hyaluronic acid and other components of the extracellular matrix</td>
</tr>
<tr>
<td>• Neoplastic changes</td>
</tr>
<tr>
<td><strong>Trauma</strong></td>
</tr>
<tr>
<td>• Disease</td>
</tr>
<tr>
<td>• Inflammation</td>
</tr>
<tr>
<td>• Surgery</td>
</tr>
</tbody>
</table>
Fat

A youthful look depends on having the right amount of facial fat in the right places. Redistribution, accumulation, and atrophy of fat lead to facial volume loss.\textsuperscript{1,2,4,5}

- Some areas lose fat. Examples are the forehead and cheeks.
- Other areas gain fat. Examples are the mouth and jaw.
- Modification of the fat pads leads to contour deficiencies.\textsuperscript{2-5}

In addition, the areas of fat tend to become farther apart. Instead of a smooth, almost continuous layer, the fat pads appear as separate structures.\textsuperscript{4}
Bone

There is a significant loss of facial bone with age. Aging of the craniofacial skeleton may be due to changes in the relative dynamics of bone expansion and bone resorption. Bone resorption leads to biometric volume loss.
**Zygomatic ligament**
- Or McGregor’s patch, is located posterior to origin of the zygomaticus minor muscle
- Connects the lower margin of the zygomatic arch with the skin

**Zygomatic cutaneous ligament**
- Originates from the periosteum of the zygomatic bone, proceeds along the lower margin of the orbicularis oculi muscle, and attaches to the skin on the anterior portion of the zygomatic bone
- The soft tissues in this area are maintained by this ligament, which droop with age and can result in the formation of a malar mound (or baggy lower eyelid)
Interventions for the aging face

• **Resurfacing** (chemical peels, dermabrasion, ablative & nonablative lasers)

• **Redraping** (various pulling or lifting of the skin)

• **Relaxing** (chemodenervation with paralytic agents)

• **Replacement/Recontouring** (the use of fill agents for superficial and deep soft tissue augmentation)
Replacement and Contouring

**SOFT TISSUE AUGMENTATION INDICATIONS**

- Non-dynamic rhytides – nasojugal and nasolabial folds, jowls and marionette lines
- Volume deficits – lipoatrophy (associated with antiretrovirals, senescence), sunken temples, tear trough deformity, atrophic dorsal hands
- Building up volume – malar prominence, chin, eyebrow elevation
- Distensible scar
  - Acne scar
  - Traumatic/surgical scars
- Perioral – vermilion, vertical “bar code” lines, oral commissure
- Combination therapy
  - Multiple fillers
  - Paralytic agents (botulinum A toxin)
Selecting the Appropriate Filler For Specific Facial Applications

**Elasticity ($G'$)**
- ability of a gel to resist deformation when pressure is applied
- More: Gelatin: stiffer, resists deformation
- Less: Pudding: softer, more susceptible to deformation

**Viscosity ($n^*$)**
- ability of a gel (in the fluid phase) to resist shearing forces
- More: Peanut butter: thicker, more resistant to spreading
- Less: Room-temperature butter: easily spreadable
# Elasticity & Viscosity Values

<table>
<thead>
<tr>
<th>Product</th>
<th>Elasticity*</th>
<th>Viscosity*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiesse</td>
<td>1,407</td>
<td>349,830</td>
</tr>
<tr>
<td>Radiesse (+) integral lidocaine</td>
<td>1,165</td>
<td>310,305</td>
</tr>
<tr>
<td>Restylane-L</td>
<td>565</td>
<td>131,310</td>
</tr>
<tr>
<td>Restylane-Lyft</td>
<td>549</td>
<td>127,090</td>
</tr>
<tr>
<td>Restylane</td>
<td>514</td>
<td>119,180</td>
</tr>
<tr>
<td>Juvéderm Voluma</td>
<td>274</td>
<td>92,902</td>
</tr>
<tr>
<td>Juvéderm Ultra Plus XC</td>
<td>136</td>
<td>32,152</td>
</tr>
<tr>
<td>Juvéderm Ultra XC</td>
<td>111</td>
<td>27,034</td>
</tr>
<tr>
<td>Juvéderm Ultra Plus</td>
<td>75</td>
<td>17,699</td>
</tr>
<tr>
<td>BELOTERO BALANCE</td>
<td>30</td>
<td>9,217</td>
</tr>
<tr>
<td>Juvéderm Ultra</td>
<td>28</td>
<td>7,307</td>
</tr>
</tbody>
</table>

*All measured at 0.7 Hz (physiologically relevant for stresses common to skin).

Malar prominence
Tear Troughs
Tear Troughs
Common Tear Trough Problems

• Overfilled tear troughs

• Tyndall effect

• Swelling under eyes after filler
Patients not suitable for Tear Troughs

- Patients with excess skin under the eye

- Patients with dark circles under the eyes
Lip augmentation
Lip augmentation
Lip augmentation
Injectable-naive but aesthetically oriented men aged 30 to 65 participated in online study (n=600)

Respondents indicated how concerned they were by the appearance of 15 age-related facial features

The correlation between the features of most concern and the areas of treatment priority was assessed.

Crow's feet and tear troughs, are of most concern followed by forehead lines (74%), double chin (70%), glabellar lines (60%), oral commissures (55%), and chin (51%).
Top areas of concern in male skincare...

- Hairline
- Crow’s Feet
- Jawline/Double Chin
Relaxing with Botulinum Toxin (Botox)

- **Botox** causes chemodenervation of muscles by blocking acetylcholine release.
- Injections of botulinum toxin type A (BoNT-A) that weaken or relax muscles can smooth hyperfunctional lines and change the contour of the face and neck.
- Adjunctive use with laser resurfacing or soft tissue augmentation is beneficial.
- Typically **last months** and **may increase with subsequent injections**.
“Spock” Eyebrows
Fig. 24.4 The typical sites of injection for the treatment of "frown lines."
Frontalis in patient with Brow Ptosis
Consideration for specific populations

• Skin of color
• LGBT
Skin of Color (SOC): Myths and Knowledge Gaps in the Aesthetic Treatment SOC patients

• Surgical and nonsurgical cosmetic procedures in the US increased by more than 30% between 2010 and 2016, with the percentage of procedures performed in non-Caucasians increasing from 19% to 25%

• Despite increasing interest in aesthetic procedures from individuals with SOC, only a few treatment guidelines or recommendations touch on race or ethnicity in discussions of safety and efficacy

• Dermatologists and plastic surgeons may thus be hesitant to treat patients with SOC

• Further, widespread and often unsubstantiated anecdotal information regarding treatment preferences and outcomes in people with SOC has encouraged myths about skin care and aesthetic treatment that may prevent this population from receiving the best possible care
Knowledge Gaps in the Medical Community
True or False: Darker-Skinned Patients of African Descent Do Not Seek Injectable Filler Treatment of the Lips
True of False: Melasma Is a Minor Cosmetic Concern With No Effective Treatment Options Beyond Sun Protection and Periodic Use of Hydroquinone

**FIGURE 2.** Melasma in a patient with skin of color before (A) and after (B) combination therapy (chemical peels and hydroquinone 6%). *Images published with permission from P. Grimes.*
True or False: Patients With SOC Should Not Undergo Surgical Procedures or Even Receive Nonsurgical Injectable Filler Treatment Because There Is a Risk of Developing Hyperpigmentation
True or False: Patients With SOC Have a Substantial Risk of Developing Keloids With Injectable Filler Treatment or Surgery

• No keloids were reported in patients with SOC in post-approval studies of injectable filler treatments in a long-term study comparing patients with Fitzpatrick skin phototypes I through III versus IV through VI, or in a case review of 60 patients that included 20 patients with Fitzpatrick skin phototypes IV through VI.

• Clinical experience suggests that dermal injury from 27-gauge needle puncture does not appear to be associated with significant keloid risk.
True or False: Racial and Ethnic Groups Are Relatively Homogeneous With Respect to Their Facial Characteristics and Aesthetic Concerns

• While some common observations can be made with racial/ethnic groups, it is important to recognize individual variations and the diverse spectrum of features that can be observed within the categories of race, ethnicity, and skin types.

• Addressing each patient's unique concerns and facial characteristics individually is crucial.
Myths held by patients
Myth: Individuals With Darker Skin Do Not Need to Use Sunscreen

FIGURE 4. Superficial exfoliation and erythema from a sunburn in a patient with Fitzpatrick skin type V. *Image published with permission from V. Callender.*
• Myth: As Dark Skin Protects Against Age-related Lines and Wrinkles, Dermal Fillers, and Neuromodulators Are Not Necessary or Useful for Patients With Darker Skin
• Myth: Laser Treatments Cannot Be Used on Dark Skin

• Depending on the type of procedure, risk of pigmentary alteration can be minimized by using longer wavelength lasers, lower fluences, lower treatment densities, and epidermal cooling techniques.

• For most laser procedures, test spots (to guide optimal setting selection) or conservative treatment settings are useful approaches to reducing the risk of pigmentary complications in SOC.

• Spot tests are strongly advised
• Patients should be counseled regarding the risk of pigment changes with laser treatment and about possible corrective treatments, if needed.

• For procedures involving injury to the dermis, assessing the risk of keloid formation based on degree of injury and personal or family history of keloids is paramount.
• Myth: Only a Medical Provider With SOC Can Understand the Nuances of Treating Patients With SOC
<table>
<thead>
<tr>
<th>Condition</th>
<th>Recommended Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>Maintain up-to-date understanding of issues related to treatment</td>
</tr>
<tr>
<td></td>
<td>Understand patient concerns and expectations in light of ethnic background and physical characteristics</td>
</tr>
<tr>
<td>General skin care</td>
<td>Counsel patients to use sunscreen (SPF of 30) and explain the risks associated with not using sunscreen. Recommend vitamin D supplementation in patients who use sunscreen. Encourage the use of moisturizers and washing the face and neck at least nightly, followed by a light cleanse or rinse in the morning, especially for patients with conditions that may compromise the skin barrier</td>
</tr>
<tr>
<td>Treatment of melanoma</td>
<td>Choose of effective pharmaceutical and cosmetic chemical agents, although topical hydroquinone 4% remains the standard of care. Recommend sunscreen use as a component of any treatment regimen for melanoma. Collect a thorough medical history to understand the risk of adverse reactions in individual patients. Provide the patient with an accurate understanding of the risks associated with the procedure. When performing laser treatments, consider using longer wavelength lasers, lower fluences, lower treatment densities, and epidermal cooling techniques to prevent tissue damage. Use test spots before carrying out laser treatments to determine how the skin may respond (strongly recommended for any new laser device acquired by a practice). When using dermal fillers, consider adjustments in injection technique (e.g., deeper placement of fillers in the dermis, avoiding serial edematous, or flat) that may limit the risk of PIT. Discuss post-treatment care with the patient and explain how following recommendations may reduce the risk of adverse events.</td>
</tr>
</tbody>
</table>

PIT, postinflammatory hyperpigmentation; PIT, pigmented skin cancer.
Approximately 10.1 million adults in the United States (4.1%) identified as LGBT.

Over 8 million (3.5%) adults identified as lesbian, gay or bisexual and 1.4 million (0.6%) adults identified as transgender.

Over 19 million (8.2%) adults reported ever having engaged in same-sex sexual behaviors.

Healthcare Disparities Among LGBT Persons

• LGBT individuals face substantial disparities in physical and psychosocial health conditions
• Disparities in health risk factors, barriers in healthcare access, discrimination, and minority stress may contribute to LGBT health disparities
• The minority stress model proposes that prejudice and stigma can generate chronic psychosocial stressors that mediate health disparities

Caring for Transgender Patients

- Gender dysphoria: Stress derived from an incongruence of gender identity and physical sex
- Can be related to societal attitudes about gender identity and can be treated via gender transition
- Many patients may undergo gender-affirming medical procedures and medical therapies and may seek your advice
- It is important to note that no two patients are alike
- The goal is to increase their quality of life and decrease their gender dysphoria
- Cosmetic treatments have been shown to increase quality of life in these patients.
Figure 2. Example of male-to-female lip augmentation using fillers in this 42-year-old transwoman. (A, C, E) ...
Figure 3. Example of brow lift using botulinum toxin in this 51-year-old cisgender woman. (A) Preinjection image and ...
Figure 4. Example of male-to-female masseter reduction using botulinum toxin in this 36-year old transwoman. (A, C, E, ...
Figure 8. Composite complete face modifications for transgender patients. Right: ideal male face showing injection...
Aesthetic Treatments for Transgender Patients

• Important tool because they can decrease gender dysphoria and improve quality of life.

• These aesthetic procedures are considered gender affirming, not cosmetic, and can augment the effects of hormonal therapy.
Questions?