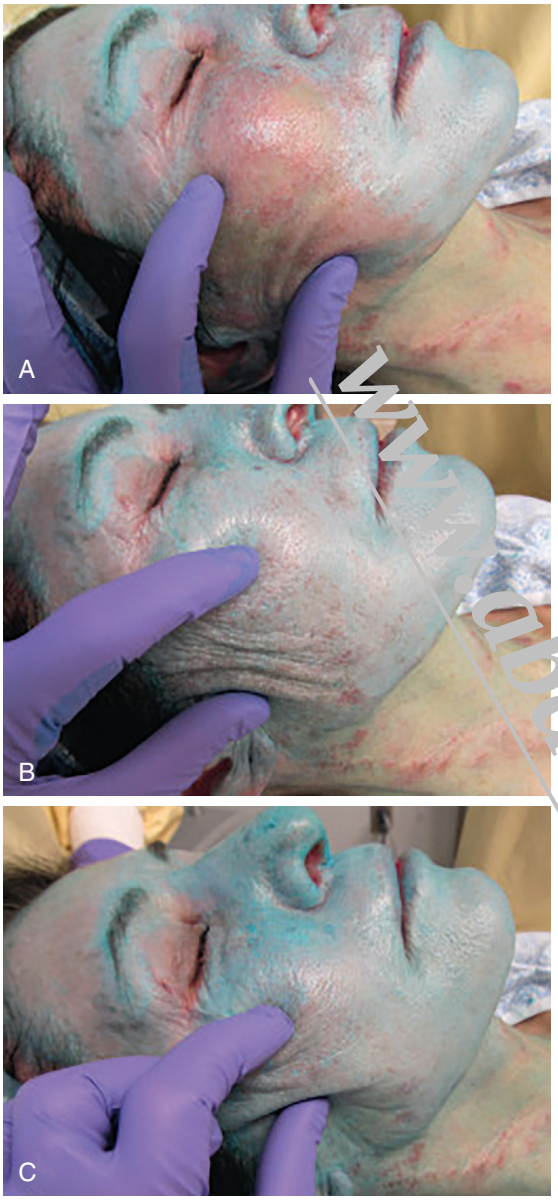

Fig. 2.5 Peel progression signs: (A) Minimal frost, no edema, no epidermal sliding sign. (B) Level 2 frost, minimal edema, almost solid frost, with pink background and epidermal sliding. (C) Level 3 frost, deeper, frost more solid, edema present, epidermal sliding gone.

dermis is involved with the peel and the upper reticular dermis has been reached but not yet involved. This is the endpoint for most peels. Beyond this level, the solid frost begins to take on a gray color, and this correlates with an increased incidence of scarring and hypopigmentation.

JESSNER–TRICHLOROACETIC ACID PEELS

After the skin is cleansed, acetone is used to degrease the face further. With either 2 × 2 gauze or cotton-tipped applicators, the Jessner's solution is applied evenly until a very light frost develops. A small amount of 35% TCA is then applied to the skin with either cotton-tipped applicators or gauze in even strokes. Two minutes are allowed to pass before further application so that the depth of TCA penetration can be assessed. Areas of inadequate frosting can be carefully re-treated. Sharp demarcation lines should be avoided by feathering out the solution to the hairline, ears, and jawline.

GLYCOLIC ACID–TRICHLOROACETIC ACID PEELS

The skin is first cleansed with soap and water only. Seventy percent unbuffered aqueous glycolic acid is rapidly applied to the skin and left on for 2 min. It is then washed off with water. Next, a small amount of 35% TCA is applied in even strokes to the face with gauze or cotton swabs. After allowing 2 to 3 min for the acid to neutralize, areas of poor frosting can be carefully re-treated.

TRICHLOROACETIC ACID–BLUE PEELS

The skin is gently cleansed with alcohol. The Blue Peel mixture is then prepared by mixing the Blue Peel base with 2 mL, 4 mL, or 6 mL of 30% TCA to create a mixture of 15%, 20%, or 22%, respectively. This mixture is applied evenly to one quadrant of the face if the patient is awake or can be done on the entire face if the patient is sedated. After a 2 to 3 min waiting period, a subsequent coat is applied. The amount needed for thinner skin will be less than that needed for thicker skin. An even blue color, even frost, and a pink background indicate that the papillary dermis has been reached. Additional coats will result in loss of the pink background, thus indicating penetration beyond the papillary dermis and into the superficial reticular dermis. This is the maximum recommended depth of a facial TCA–Blue Peel.

PHENOL PEELS

Hetter VL Peels

The modified, lighter phenol peels, like the Hetter VL solution, can be used to treat a single cosmetic unit without the need for cardiac monitoring or IV hydration.

However, if a larger area is to be treated, or a stronger solution of phenol is used, the patient must have appropriate cardiac clearance, good hepatic and renal function, and receive appropriate IV hydration and cardiac monitoring.

The skin is degreased with alcohol. The phenol mixture must be swirled before each application as the oil and water components of the solution have a tendency to separate. The solution is applied to the skin with a cotton-tipped applicator. Care must be taken not to let the solution drip or run down the face. Once the solution is applied, the skin will frost quickly. The endpoint is an even white frost (Fig. 2.6). The frost dissipates quickly, so one must pay close attention to make sure that one does not apply more solution and peel the skin too deeply.

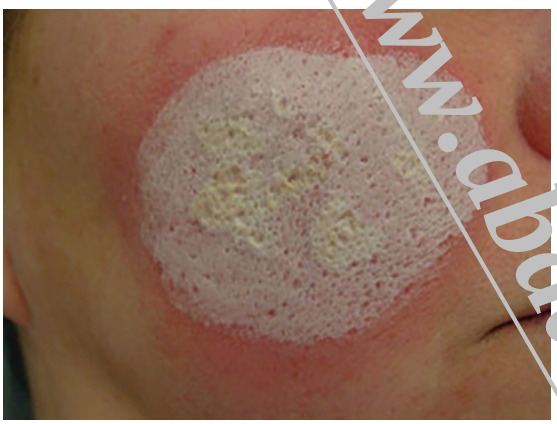

Fig. 2.6 Phenol peel frost—more solid frost on deeper scars, less solid frost at periphery.

COMBINATION PROCEDURES

Chemical peels can be successfully combined with laser resurfacing and surgery, with certain precautions. When performing chemical peels with laser procedures, the following guidance should be adhered to: (1) nonablative or minimally ablative lasers (vascular or pigment lasers) or electrodessication is performed first; (2) the medium-depth peel is performed next; (3) if a phenol peel is to be used in certain cosmetic units, this is then performed; (4) the skin is cleansed to remove all residual acids; and (5) the laser resurfacing of certain areas can then be performed (Fig. 2.7). If peels are done in combination with a facelift, care is taken to avoid peeling beyond the superficial papillary dermis over the undermined skin flap.

POSTPROCEDURAL CONSIDERATIONS

Postoperative Care

Light Peels

Patients will experience minimal erythema and a variable amount of desquamation. They are instructed to avoid sun exposure during the healing phase. Patients should gently wash their face twice a day and apply a

Fig. 2.7 Combination resurfacing: (A) Trichloroacetic acid (TCA)–Blue Peel performed first, (B) periorbital Hetter VL phenol peel is performed next, the skin is then cleansed, and (C) fractionated laser resurfacing to the perioral and forehead region is performed last.

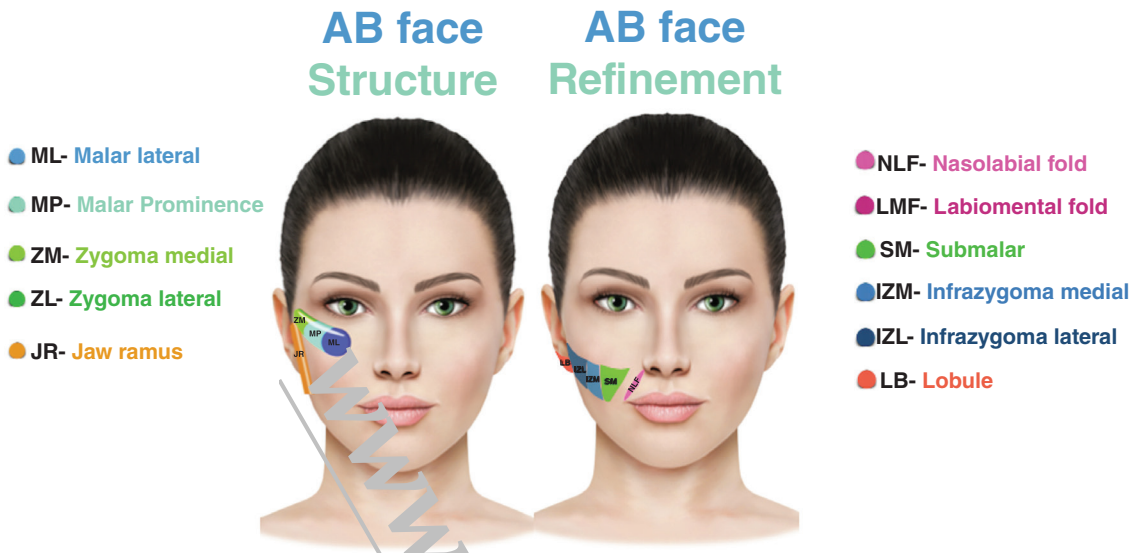

Fig. 4.2 Midface anatomical facial areas that can be treated with fillers. (From Procedures in Cosmetic Dermatology: Soft Tissue Augmentation. Trindade de Almeida, Ada Regina; de Abreu, Luciana; Braz, André Vieira. Published December 31, 2023. © 2024.)

8. Nasolabial folds
9. Brow
10. Superorbital hollows (A-frame deformity)
11. Temples
12. Earlobe rejuvenation
13. Nose
14. Neck and chest
15. Superficial skin wrinkling
16. Periorbital

BODY

1. Buttocks
2. Breasts
3. Hands

Rhytid Correction

Many patients seek dermal fillers to correct skin rhytids. Rhytids are folds/lines within the skin itself, related to generalized skin aging—called *static wrinkles*—or connected to movement in the area that creates a stereotypical pattern of wrinkling—called *dynamic wrinkles*. As a person ages, the dynamic wrinkling of the face corresponds to what eventually develops as the "relaxed skin tension lines" (RSTLs), which are stereotypical patterns of wrinkling that corresponds to natural facial movement patterns.

Dermal fillers can be used to correct rhytids—however, rhytid correction with filler is fraught with complexity and risk and should be cautiously approached. In particular, dynamic wrinkling can create challenges, as the area inherently moves, and filler—being a static gel—can look unnatural. In addition, true rhytids exist in the skin organ itself. Volumizing these lines can pose a challenge, as it requires the placement of filler into an inherently dense dermis. In the author's experience, even the term "dermal filler" is a misnomer, as fillers are best utilized to volumize when placed in sub-dermal locations.

Disease- or Trauma-Related Revolumization

Some of the first FDA-approvals for dermal fillers were in treating volume loss related to disease. The most well known of these examples is PLLA (Sculptra), which was first FDA-approved for use in patients who suffered facial lipodystrophy (or loss of subdermal fat) usually as a consequence of HIV or AIDS.

Patients that have suffered from longstanding unilateral facial paralysis or paresis are another group that can benefit from the application of filler. In these patients, dramatic differences in movement from one side to the other of the face lead to differences in aging between the two sides, with the unaffected side having a greater amount of gravitational and volumetric aging changes than the affected side. In addition, total denervation of certain larger facial muscles—like the

additional example showing the degree of correction necessary is shown in Fig. 7.4. The considerable pleating and bunching of facial and neck tissue immediately following suture placement is normal and resolved at 1 week. In the mid- and lower face, divots at the entry site may be apparent, and pleating or rippling may appear at the entry and exit sites or along the length of the suture. It is completely acceptable if one of the inferior or superior knots or cones is pulled through the exit points by redraping or elevation. The knot and associated cone can

Fig. 7.4 A 59-year-old female patient immediately post-procedure (A–E)

Fig. 7.4, cont'd. and 1 week postprocedure (F–J). Note the considerable pleating and bunching of facial and neck tissue immediately following suture placement and resolution of these effects at 1 week.