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# Exfoliative Skin-peeling, Benefits from This Procedure and Our Experience

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## ABSTRACT

The peeling procedure is a valuable method for the aged skin, photo aging, acne scars and melasma. It should be performed by dermatologist. Pre peeling preparation of the skin is very important to prepare the skin for this procedure. It can be archived by applying the mask with acids twice a week. The caring of the skin after procedure is also very important for the success of the treatment. Same cases may have complication but managing them is also a challenge for dermatologist.

**Key words:** exfoliative skin-peeling.

## 1. INTRODUCTION

Chemical peeling is a quite frequent procedure that is used for the treatment of photo aging skin, deep wrinkles and fine lines, acne scars and to improve the skin vitality, tonus and texture. Chemical peeling is the most frequent derma-esthetic procedure in the world (1). During this procedure there are used different acidic solutions (salicylic acid, lactic acid, glycolic acid) on the skin in order to stimulate the skin exfoliation, depigmentation and revitalization through promotion of the glucosaminoglicans, fibroblasts and remodeling of the elastin and collagen fibers. This treatment is widely used today as an alternative of lasers or derma abrasions procedures.

Of course, the maximum efficiency would be if you organize a treatment plan and make the combination treatments with other procedures such are fractional laser or derma abrasion. There are three different levels of implementation the peeling procedures. Depth of peeling and the concentration of the substance used are based on the level of damage or photo damage and what is expected by the patient. There are three levels of chemical peeling: superficial, medium, and deep.

**Superficial peeling** eliminate the superficial cells of the epidermis by causing the necrosis of the epider-

mis from granulose to basal layer. These peeling stimulate a rapid regeneration of epidermis, eliminate the spots, eliminate the fine lines and improve the wrinkles through the promotions of fibroblasts and regeneration of fibers of elastin and collagen.

### Peeling procedures

**Peeling with 20-40% glycolic acid**, a peeling procedure often referred to as the lunch time procedure<sup>(2)</sup>: a) this procedure is just 1-3 minutes and eliminates several layers of epidermis; b) it smoothness the layers of the skin effectively and rapidly; c) A procedure efficient in acne prone skin and improves the tonus and texture of the skin; d) Effective in treating the acne scars; e) - Increases absorption of local creams and serums

**The AHA, BHA (alpha hydroxyl acid and beta hydroxyl acid)** is organic acids which realize exfoliation and improve the cell circle-turn over. There are two main results of the application of these acids in the skin: acceleration of cell cycles (which is slow with aging) and improves the stratum corneum smoothness (1, 4, 5, 11). This peeling reactivates circulation in the skin: a) stimulation of fibroblasts; b) increase and stimulate the glucosamins; c) increases dermal turgor and d) eliminates easy corneal layer of epidermis.

**Peeling with salicylic acid** which is a simple peeling, very easy to apply and is less time consuming. This is a very effective procedure in treating acne and acne prone skin (6, 7).



Figures 1-8. Patients before and after exfoliative skin-peeling treatment

**Peeling with 10% trichloroacetic acid (TCA)** that can be increased in concentration in order to have more benefits from the procedure performed (8, 9).

During this peeling it helps cleans deeply clogged pores, control and treat effectively severe acne. It also eliminates or make less visible signs of early aging; b) Improves significantly the skin texture and skin discolorations giving an excellent view; c) Smooth and revitalize skin and D) Eliminates the signs of photo aging as dark and white colors.

**Medium peeling:** For the skin that is more damaged by radiation is recommended the application of medium peeling procedures in order to penetrate deeper the product and the improvement to be seen in the middle layers of the skin. These can cause the procedure to be discomfort (skin redness and desquamation) depending on large areas treated and to the fact that repair of the skin is seen 5-7 days after application of substance that carry peeling.

**Acid trichloroacetic (TCA) 10-40%** is a peeling that improves the fine wrinkles, discolorations and makes the skin smoother and more youthful in appearance. But in the 10-15% concentration peeling does

not acts on deep wrinkles or scars. Applying in higher concentration 35-40% it realizes epidermal necrosis without serious systemic toxicity. TCA solution 35-40% is standard for medium peeling of face and hands. In these concentrations should be used by qualified doctors and special care should be carried because it can cause hyper pigmentations and scars.

**Glycolic acid 50-70% is also used for the same purposes and same application procedure like TCA peel.**

**Side effects and special care after application of medium peeling:** patients should be prepared that after the peeling procedure they will look bad. During the first two days the skin will look red. On the third or fourth day the skin darkens and on the fifth day it starts the desquamation. Redness persists until day 10-14. Absolute contraindications for applying medium peeling are patients with dark skin because the risk for hyper-pigmentations and those who have used retinoid or local sun radiation because the skin regenerated capabilities are reduce (10, 12). Contraindications for applying peeling are patients that have herpes simplex and to these patients it is recommended to treat in ad-

vance herpes virus with antiviral. Many doctors apply first superficial peeling and then increase the concentration of the product or move on to medium peeling and thus realize a high efficiency through the combination of procedure (9).

**Deep peeling procedure:** this procedure is implemented to eliminate deep wrinkles, acne scars and signs of actinic keratosis. It is very aggressive procedure and should be performed by doctors specialized in these procedures. Today the application of lasers and dermabrasion procedure are most frequent and eliminates in this way side effects of this deep peeling. Since the deep peeling can cause hypo pigmentation or skin whitening and skin changes it is recommended to use combinations of deep and medium peeling.

**Post peeling** procedures is very important especially for medium or deep peeling. Superficial peeling eliminates partly the epidermis and the patient may notice the improvements from peeling and redness after a 48-72 hour period. It's important to note that the patient during the process of improving after peeling have to keep the skin hydrated by applying the moisturizer creams and protect from the UV radiation through the use of creams with SPF protection factor 50. Certainly the improvement of wrinkles are seen in two months since we all know that the process of remodeling the elastin and collagen fibres need this period of time.

## 2. METHODOLOGY OF OUR EXPERIENCE AND APPLICATION OF PEELING PROCEDURES

### 2.1. First visit and the selection of patients for peeling procedure is very important, It starts by:

- Taking a detailed history of the patient
- Make the correct diagnosis and treatment options
- Perform photo document
- Discuss the frequency of the sessions and the patient expectation.

### 2.2. Contraindication for using the peeling:

- The presence of Herpes Simplex infection
- The laser treatment procedures carried out recently such as laser depilation, derma abrasion and other procedures that could compromise the structure of the skin.
- Family history to develop keloids or hypertrophic scars.
- Pregnancy
- Allergies and predisposition to post-inflammatory hyper pigmentations.
- Isotretionin treatment.
- Radiation

### 2.3. Important care

It needs for the photo types of the skin IV and V; as they tend to develop hyper-pigmentation so it needs a very carefully procedure and implement a strict regimens of post-peeling. Usually the patients often have erythema.

### 2.4. Preparation for chemical peeling

- Preparation of the skin starts at least 15 days before the first session.
- Masks used with AHA, BHA or lotions with salicylic acid or lactic acid in lower concentration are recommended.
- Moisturize and protect of the skin, use a hydration cream with at least SPF 50

## 3. WHAT IS A GOOD TECHNIQUE PEELING?

- Do not rub hard peeling products, apply them gently.
- Apply the solution with a brush or cotton applicator.

- Do not hurry; be quiet during the application of the solution.
- Abort procedure when you are convinced that the solution is applied uniformly.
- Respect the anatomic construction of the skin during the application.
- Neutralizes the best solution and covers the area treated with Post Peel cream.

## 4. AFTER PEELING CARE;

- Avoid skin friction, masks or hard scrubs
- Prevent Herpes simplex with antiviral.
- Use moisturizing lotions or creams to smooth the skin crusted.
- Check improvement in order to prevent any possible complications and treat it as early as possible.
- Use sun protection creams, minimum SPF 50.

## 5. CONCLUSION

The peeling procedure is a valuable method for the aged skin, photo aging, acne scars and melasma. It should be performed by dermatologist. Pre peeling preparation of the skin is very important to prepare the skin for this procedure. It can be archived by applying the mask with acids twice a week. The caring of the skin after procedure is also very important for the success of the treatment. Same cases may have complication but managing them is also a challenge for dermatologist.

CONFLICT OF INTEREST: NONE DECLARED.

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