

# MICRODERMABRASION REPORT

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## TECHNIQUE

Microdermabrasion is a technique which permits to treat the skin with inert chemical microcrystals to provide progressive abrasion.

Microdermabrasion has a hyperemic effect more or less marked, depending on the method the machine is used with.

The depth of the abrasion produced depends on:

the force and the quality of the flux of microcrystals; these parameters can change with the practice.

The duration of the application in the same direction.

The specificity of this technique concerns essentially the progressivity of the action, which permits an exact check of the depth of the abrasion.

The technique provides a good security of utilization for the operator, particularly for what concerns the risk of engraving the basal skin in an excessive way and of stimulating the melanocytes too much; it also involves an excellent allowance from the patient.

This specification opens the way to a sensibly different therapeutic approach, compared to that of classic dermabrasion, consisting in a surfacing aggression (limited to the skin) and repeated to cause a total regeneration of the skin tissue.

By using the dermabrasion, two different operations are possible:

a deep action which can assault the dermic tissue done in a short number of sittings (from one to four); microdermabrasion, compared to classic dermabrasion, surely has a smaller number of possible inconvenients (hyperpigmentation, hypo-pigmentation) and an easy method of execution.

A progressive approach consists in doing a surfacing abrasion which doesn't have to be more than a slight bleeding and to repeat the abrasion for more applications. This second way undoubtedly represents the most important novelty of microdermabrasion and this is the one we prefer to practice; the main opportunities can be resumed in the following way:

An optimal and constant control of the risks of unaesthetic consequences, even if the problems of hyperpigmentation are not eliminated for ever.

The non traumatic aspect of the method: the absence of pain and of visible marks on the skin after the treatment.

A new way on the indication of classic dermabrasion, even if a deeper action is not advisable.

The microdermabrasion treatment is founded on the supposition that the depth of the abrasion is not the only principle of efficacy; in fact-the repeated aggression of the skin also constitutes a determinant factor of the therapy.

## PEELING - PINE WRINKLES

The dermabrasion treatment is suggested to people with slight unaestheticisms on the skin, such as dilated pores, a missing of tissue's elasticity, a pale hyperpigmentation or a hypopigmentation.

Soft and repeated pass are executed determining an **exfoliation only** of the corneous part. At the end of the treatment, the skin will result a little bit red. Prescription after the application and **during** the following days with the use of moisturizing creams is suggested: two treatments are recommended at distance of **10/11** days, one from the other, for a total of **10-12** appointments. The maintenance will be on a monthly basis.

The results obtained were **evaluated** through two factors:

--measure of skin's elasticity before and after the treatment.

- Operator and patient can appreciate visually and by touching the surface of the skin treated.

The measure of the skin's elasticity has demonstrated that a significative difference exists with an improvement of **th14,4%** compared to the **previous** situation before the treatment.

Here as follows we report the degrees of satisfaction of patients for the treatment done:

Very good results	40
Non satisfactory results	35
Unsufficient	0
Total	85

All patients were women aged from 45 to 65 years, and the highest percentage of women was between 60 and 55 years old.

Patients present a relaxed skin more present on the front part of the neck and the low-cut neckline, missing of skin's elasticity and a minor attachment of the skin on the depth, this relax was often combined with areas of irregular pigmentation and a lot of teleangectasies.

The improvement obtained can be summed as follows:

Skin more brim, presenting a better consistence.

More delimitation on the features.

Attenuation or disappearance of lateral lines under the chin.

Loss of relaxed aspect of the skin.

Level of the horizontal lines of the neck.

## DECOLLETE'

Attenuation or disappearance of the vertical skin lines which form a "V" between the breast.

Disappearance of irregular chromatisms (pigmented and hypo-pigmented areas, teleangectasies).

The unsufficient case references with other finalized technical systems for contending with relaxing skin do not permit us to appreciate the benefits.

We know about a study done with vitamin A creams which have not determined a considerable benefit of skin's elasticity.

We can only assert that the benefits of skin's elasticity will be more evident after a six months treatment and can be compared only with those obtained through a good moisturizing cream just applied but, as we know, these second ones disappear after some hours.

The main drawback using the microdermabrasion on this pathology is the long time that this treatment takes, but the same drawback is provoked by electrotherapy, which actually seems to be the only valid alternative that oversteps the surgical operation.

## POST ACNEIC SCARS

It is common knowledge that juvenile and cheloid acne often causes scars on the face.

It's easy to understand, even this is a local and not serious disorder, that this has a very big aesthetic importance with consequences on patient's psyche.

Actually to obtain a deep desquamation, chriotherapeutic treatments and treatments of glycolic acid, and the surgical treatment completes the therapeutic possibility.

The controlled microdermabrasion with inert microcrystals finds in these pathologies, like in all the unaestetisms determined by concave scars (herpes, chicken-pox) one of its best applications.

The treatment doesn't need any local anaesthesia. In fact, this methodology is effected through a gradual solicitation of the nervous termination with no pain. With sensitive patients it is sufficient the application of an anaesthetic cream.

We have tested twenty people with acneic scars on the face with an age between 18 and 45 years. Some of these patients present active acne a good cleaning face is done with alcohol free products and antiseptics; then a preliminar peeling is effected with exfoliation by removing only the corneous portion, in aspiration. and never by using the compression, with slow movements; passing twice on the zone.

On the areas with big scars it is suggested to use the compression to smooth the border's scar and to produce a controlled, slight bleeding. The depth of the abrasion is directly proportional to the scar's importance.

We recommend repeated treatment, not in depth, to guarantee a good levelling of the skin, its quickly regeneration and homogeneity of the colour, in order to avoid hyperpigmentation.

On the areas treated in depth, you will see the presence of small crusts which will fall down spontaneously within 5-7 days.

At home the patient will wash daily the skin with acid soap and for 2-3 days he will use antibiotic creams to be applied on the zone.

The following treatments will take place every 10-15 days for a total of 5-10 applications.

We remind that the number of applications is variable, in any case depending from the importance of the lesion, of the grade of skin's elasticity, of the regenerative capacity of the lesion and of the zone treated.

To all patients it was recommended to avoid hyperpigmentation, not to expose to direct sun rays for 4-6 months and the use of total screen creams.

For the above-mentioned reasons it is suggested to do the treatment during the winter time.

## RESULTS

Very good	13
Good	5
Satisfactory	2
Total	20

## SEBORRHEA

The efficacy of controlled microdermabrasion on the seborrheic skin is excellent.

This kind of problem needs from one to three applications.

In any case the term of the result is short, but can be protracted by doing further applications.

You will obtain the exfoliation of the skin with slow movements of the instruments, 2-3 cm. each pass, with vacuum only.

Every treated zone will be passed from 2 to 1 turns.

## CUTANEOUS HYPERPIGMENTATION

Two or three applications are enough to clear up the most serious cases of hyperpigmentation.

The depth of microdermabrasion is signed from the basal tissue, where the melanin is present.

It will be necessary to cause a light bleeding, achievable with a short compression.

These treatments will be weekly and limited on the time and will proceed from six months to one year.

When hyperpigmentation is coming back, it is enough to practice a further treatment.

More lasting results will be on people where the use of creams with glicolic acid and cogico acid or only cogico acid is combined. This avoids the activity of tirossinasis enzyme which produces combined melanin in the summer with the constant use of total screen creams during the sun exposure.

We treated **20** patients aging from 20 to 60 years and the results are the following:

Very good	16
Good.	3
Satisfactory	1
Total	20

## DISFIGURING SCARS ■ RESULTS BURN'S SCAR

In both cases before to operate it is necessary that almost six months pass from the resolution of the wound and from the scar's formation.

In contrary case, and for healing process if we work on a tissue still in phase of proliferation, we can have more possibilities of arise a cheloid.

Recommended, in this case, an accurate research on an individual predisposition. The number of treatments and the depth of abrasion is in respect with the importance of the scar. We will arrive in any case at the surface of derma by causing a small bleeding in all the area.

Technically we will use a compression succeeded from a vacuum of microcrystals.

A local medication with an antibiotic cream will follow to the cleaning of the treated area and if it is possible execute compressive bandage to take off after 2-3 days.

The complete resolution and the consequence "restitutio ad integrum" will be obtained after 7-10 days.

It is possible to work again and more times on the treated area if we want to improve the result obtained.

I prefer to effect more limited operations.

This has given to me the opportunity to obtain better results, both the skin's regeneration and on the homogeneity of the skin's colour. Both in the small and in the big scars it is necessary not to expose at the sun for at least 30 days from the end of treatment and to use total screen. creams.

## INACTIVE CHELOIDES

The nature of cheloides is not definite. They can frequently relapse, on skin in good condition-primitive cheloide, or as a consequence of scars or burns. - secondary cheloides.

With controlled microdermabrasion our experience is reserved to the secondary and inactive cheloides.

The number of applications and the depth of the operation is variable with the importance of the unaesthetism.

In all the treatment we arrived to an homogeneous bleeding, nevabundant, working always in compression.

Compressive bandage and medicaments with antibiotic creams taken off after 3-4 days.

The re-treatment has never been done before 15 days.

In total we treated 7 patients aging from 14 to 60 years.

In all of them we obtained a great reduction of the unaesthetism with a good levelling of the skin and a colour that only in two cases gave on a hyperpigrnentation. We recommend the abstention of sun exposure for two months at least and the use of a total screen cream.

## TATTOO

It is necessary before the beginning of the treatment the careful evaluation of:

- if the tattoo is located in points of muscular solicitation (where more frequently a cheloide may verify).
- If the tattoo has been made by a professional person or by a "amateur" (in the second case the colours will certainly be passed deeply in the skin and a deeper abrasion will be necessary).

The abrasion will arrive to the derma and we must work with compression. Usually for small tattoo a local anaesthesia is not necessary, a local anaesthetic cream will be enough.

Some operators apply on the treated area some salt and a compressive bandage that will be taken away after 3-4 days.

Personally I find this technique very painful. I prefer to clean the area with oxygenated water and to leave the microcrystals that have the property to absorb the coloured substances.

Then I will do a medication with antibiotic cream and a compressive bandage which has to be taken off after 3-4 days.

We will have "restitutio ad integrum" of the abrasion after 7-10 days.

For small tattoo a single treatment is enough.

With this technique we treated 8 people.

No one presents cheloide. The skin didn't change in colour and the limits of lesion remained perfectly at the level of the surrounding skin.

## STRETCH MARKS

My experience concerning this problem is based on a study effected on 32 women aged between 16 and 55 years.

Patients present stretch marks of different origins on one or more areas; stretch marks appear during the pubertyage.

The number of applications change from 10 to 20 for a period of about 4 months.

The treatment is always done on the surfacing with slight punctiform bleeding and resolution of small lesions within 3-4 days.

Especially in women aged between 40-50 years we have noticed a considerable increase of 30% of skin's elasticity.

This information is according to a study made from the Biophysics Labury of Pharmacy Faculty of Paris (Prof. Poelman).

We obtained a lighter reaction in women younger than 30 years old who constitute the highest number of patients.

The visible efficacy of the treatment can be appreciated by the patient and the doctor.

The results can be classified as follows:

- disappearance of stretch marks (especially the most skin-deewound);
- setting of large and deep stretch marks;
- changement of stretch marks' structure, reduction and disappearance by touching of the sensation of skin's consistence;
- setting or disappearance of the contrast of colour of stretch marks compared to the near tissue.

Only 3 of the patients treated haven't obtained appreciable improvements.

Aside from the age, stretch marks' depth has been reduced and the difference of colour is disappeared.

It seems that the disappearance of stretch marks during the treatment is depending not only from the depth but even from their location.

We saw the disappearance of large and deep stretch marks on the area of the abdomen in young pregnant women.

These case histories permit us to assert that microdermabrasion, even this is not constituting the absolute solution for stretch marks, permits a great evolution in their treatment.

I think that further studies can give more information concerning the technique to use and to define the appropriate treatment (number and frequency of sittings and abrasion's depth) depending from the kind of cases (area, origine, importance of stretch marks, kind of skin).

## PROSPECTS

The microdermabrasion seems to offer a large possibility of operations; its use in an aesthetic cabinet can be constant.

The frequency of-use, its easy application, the patient's good acceptance of the treatment, usually without having pain and trouble, offers to the operator a valid therapy support.

For instance, it doesn't exist a real efficacious treatment in the care of stretch marks and the opportunity of microdermabrasion is determinant.

For other indications the microdermabrasion consists in a more than valid alternative to all the techniques whose efficaciousness has been tried, for instance:

dermabrasion with cut, chemical peeling, electro therapy, surgical treatment.

In my opinion it will be interesting, in any case to better know the skin's reaction, for a repeated treatment, but limited at the skin. This reaction is in contradiction with the idea, sometimes present, that "to obtain a result we have to provoke bleeding".