

Microfractional RF Needling Technology with Mitate C3 Mask as an Effective Treatment for Periorbital and Perioral Wrinkles in Filipino skin

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Introduction

Skin wrinkling is the hall mark sign of aging. Wrinkles also known as rhytides are the lines and creases that form in your skin.

Facial wrinkles develop as people age. Sun exposure, stress, pollution, smoking, and facial muscle contractions often contribute to the formation of wrinkles.

Several treatments are available in the Philippine market and these are the following: dermabrasion, botox, laser resurfacing and chemical peels. The treatments available are either invasive or short term.

Microfractional Radiofrequency promotes resurfacing, ablation, coagulation and subnecrotic heating. This treatment helps improve facial wrinkles, acne scars, pigmentation, stretch marks and hyperhidrosis.

This paper aimed to evaluate the efficacy of micro fractional needling with radiofrequency in treating periorbital and perioral wrinkles.

Materials and Methods

Subject

One participant is enrolled in the study. The subject is aged forty nine (49) with Fitzpatrick Skin Type IV. During initial assessment, the following skin characteristics were noticed: mild pigment changes, visible wrinkles and indentation around the eyes, parallel smile lines around the mouth (*Figure 1*). The baseline assessment was conducted last May 2013.



Fig 1. Before the Treatment. At age forty nine, visible wrinkles are seen in the periorbital and perioral areas.

For image analysis, digital photographs were taken using a Digital Single Lens Reflex camera: Nikon D3200.

Treatment Protocol

The subject received three sessions of iFrax treatment that are spaced every four weeks.

After washing the face with soap and water, anesthesia (Lidocaine 9.6%) was applied topically (*Figure 2*). Thirty minutes after anesthesia application, microneedling with RF (iFrax) treatment commenced. The same standard protocol was used for the three treatments and these are the following: White Zone (5% Interval, 20% Energy, 1.5 mm Needle Depth) (*Figure 3*) and Pink Zone (5% Interval, 30% Energy, 2.5 mm Needle Depth) (*Figure 5*). Single pass with 10% overlap was done in the entire face. Double pass was done in the areas around the eyes and the mouth (*Figure 4, 6*). The iFrax treatment lasted for 20 minutes.



Fig 2. Topical anesthesia (9.6% Lidocaine) was applied.



Fig 3. Treatment Protocol for the White Zone



Fig 6. During the Treatment of the chin area (Pink Zone)



Fig 4. During the Treatment of the forehead (White Zone)



Fig 7. Immediately after the treatment, prior to the application of the Mitate C3 Mask.



Fig 5. Treatment Protocol for the Pink Zone

After the iFrax treatment, the face was coated fully with Mitate C3 Mask (*Figure 8*). To increase the absorption of the semi solid mask, Sonophoresis was used. Sonophoresis of the Skin Karma machine was utilized for another ten minutes.



Fig 8. Application of Mitate C3 Mask



Fig 9. Thirty (30) minutes after the removal of Mitate C3 mask.

The subject was given packs of Mitate C3 mask to be used at home for the next weeks and months.

Close up images of the face, eyes and mouth was documented when the subject was at rest and when the subject closed her eyes tightly. Subsequently, frontal images of the subject's mouth were taken when the subject was resting and smiling. The subject washed her face with a commercial skin cleanser prior to imaging. The same SLR camera was used in the entire study.

Strict confidentiality was observed all throughout the study.

Results and Discussion

During the Treatment

Redness and pinpoint bleeding was observed during and immediately after the treatment (*Figure 7*). These are all expected signs for an effective outcome.

The subject states that the pain is tolerable. Pain scale is six out of ten. Subject felt the heat and a stinging feeling, but all in all, the client tolerated well the procedure. She reported an itchy feeling four hours post treatment (*Figure 4, 6, 9*).

First Treatment

24 Hours After the First Treatment

Visible redness can still be observed on the forehead area (*Figure 10*). The client complains of an itchy feeling. Researchers explained well that it is normal and part of the healing process. No skin infection was observed after the treatment.



Fig 10. 24 Hours After Treatment

48 Hours After the First Treatment

The remaining redness disappeared two days after the treatment (*Figure 11*). The client reported no pain and itchiness. She noticed that her skin turns pinkish after removing the Mitate C3 Mask. The client also stated that it is very easy to apply the mask at home.



Fig 11. 48 Hours After Treatment

72 Hours After the First Treatment

The client reported some itchiness on selected areas on the face. Few, small pimples appeared. The treated area was fully healed (*Figure 12*).



Fig 12. 72 Hours After Treatment

One Week After the First Treatment

Itchiness and redness totally disappeared (*Figure 13*). There is noticeable skin lightening, fine lines are still visible but the client felt that her skin tightens. The client states that some of her friends notice that her skin is glowing.



Fig 13. One Week After the Treatment

Two Weeks After the First Treatment

Skin tightening is felt around the eyes and the cheeks (*Figure 14*). The client is fully satisfied with the procedure results. She states that she would like to have another treatment.



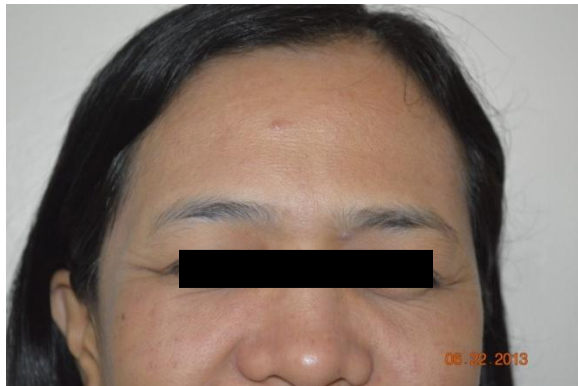
Fig 14. Two Weeks After the Treatment

Second Treatment

24 Hours After the Second Treatment

Coffee ground scabs were evident after 24 hours. Facial edema was also observed (*Figure 15*). Client states that her face is itchy.





Coffee ground scabs were still evident all over the treated area (*Figure 16*).



Fig 15. 24 Hours After the Second Treatment

48 Hours After the Second Treatment

The client states that the second treatment is much painful than the first one. She feels itchy all over the face especially on her forehead.



Fig 16. 48 Hours After the Second Treatment

72 Hours After the Second Treatment

The client states that the face is still itchy. Redness and swelling subsides on the third day (Figure 17).



Fig 17. 72 Hours After the Second Treatment

One Week After the Second Treatment

Coffee ground scabs fell off completely. The subjects' skin is fairer than before (Figure 18).

“My skin is softer and I can feel that my skin is tightened” as verbalized by the subject.



Fig 18. One Week After the Second Treatment

Two Weeks After the Second Treatment

The face demonstrates a further decrease in wrinkles around the eyes and mouth. Skin complexion is lighter (*Figure 19*). The subject is pleased with the results.





Fig 19. Two Weeks After the Second Treatment

24 Hours After the Third Treatment

Skin is less edematous as compared to the first and second treatment. Redness was observed

all over the face (*Figure 20*). The client states that the third treatment is less painful than the previous one.





Fig 20. 24 Hours After the Third Treatment

48 Hours After the Third Treatment

Redness all over the face was noticed. Skin has more volume (*Figure 21*).



Fig 21. 48 Hours After the Third Treatment

72 Hours After the Third Treatment

Client states that her skin is tightened and more firm (*Figure 22*).



Fig 22. 72 Hours After the Third Treatment



One Week After the Third Treatment

Wrinkle reduction improved around the eyes and mouth. The client is very much satisfied with the results (*Figure 23*).





Fig 23. One Week After the Third Treatment

Two Weeks After the Third Treatment

There is a further decrease in wrinkles in the perioral and periorbital area (*Figure 24*). Sun damaged skin improved and has a pinkish glow.





Fig 24. Two Weeks After the Third Treatment

Conclusions

Although various treatments for wrinkle reduction have been proven effective, the iFrax Microfractional System greatly helps in reducing periorbital and perioral wrinkles. Skin tightening was felt around the eyes and the cheeks. The subject is satisfied with the results.

Long term follow up is needed to check for recurrence of wrinkles.