

**CASE STUDY**

# Use of Occlusive, Collagen Gel Masks as an Adjunctive to Aesthetic Medical Skin Treatments: a Split-face Case Study

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## Abstract

**Background:** Preparatory protocols and post treatment topical treatment regimes are commonly employed in combination with various aesthetic skin treatments, including ablative and non-ablative light based treatments, photodynamic therapy, chemical peels and microneedling. The need for simplifying, standardizing and improving such treatment protocols exists. Collagen Veil® aims to achieve this goal with a three step program of soft, pliable, plant collagen gel masks infused and immersed in different medically formulated ingredients specifically designed for their respective purpose.

**Methods:** Facial Photodynamic therapy was performed on one subject, followed by split face application of soft gel mask with post treatment formulation twice daily along with photographic monitoring bilaterally and patient reported questionnaires for 5 days.

**Results:** Immediate soothing was experienced by the subject to the treated side that lasted for hours after each application. The treated side appeared smoother, experienced less flaking and apparent faster healing time compared to the untreated side.

**Conclusion:** The collagen gel mask was effective in providing soothing with lasting comfort, improved skin appearance and faster healing compared with the untreated side and is a good option for use after skin treatments that lead to inflammation, discomfort, peeling and flaking. Additional studies are warranted.

## Introduction

The use of topical agents on injured, irritated or inflamed skin dates back for millennia in view of providing relief, preventing infection, to aid in the healing process and reduce scar formation. Prior to performing any skin treatment that causes pain due to micro injuries, such as fractional laser or micro-needle treatments, the application of topical anaesthetic preparations is widely adopted in cosmetic dermatological practices<sup>1</sup>. Occlusion of topical products provides a moist environment that prevents water evaporation and allows for continued absorption of ingredients and in the case of topical anaesthetics, better analgesia<sup>2</sup>. Post procedure, an inflammatory response due to micro injury results in the release of many inflammatory mediators producing vasodilatation, erythema, edema and pain. Appropriately chosen topical substances can subdue the symptoms associated with inflammation and provide temporary relief as well as support the wound healing process<sup>3,4</sup>.

Utilizing a soft, pliable, plant collagen based gel mask and immersed in a water-based formula, an evenly occlusive environment suitable to skin absorption of ingredients is created upon application. The formula for post treatment use contains natural anti-inflammatory agents as well as nutrients and agents supportive to wound healing and collagen remodelling such as Aloe Vera, witch hazel, allantoin, copper tri-peptide, tea tree oil, vitamin E (tocopherol), honey and liquorice root.

The purpose of this study was to evaluate the patient reported reduction in discomfort obtained with the post treatment application, as well as study the objective skin changes over five days following an inflammation inducing skin treatment in a split face manner.

**Figure 1:** Notably reduced inflammation and flaking is apparent on the right side of the face being treated with post treatment formula collagen gel mask compared to the untreated side during the first five days following Photo Dynamic Therapy



Day 2 – Mask



Day 2 – No Mask



Day 3 – Mask



Day 3 – No Mask



Day 4 – Mask



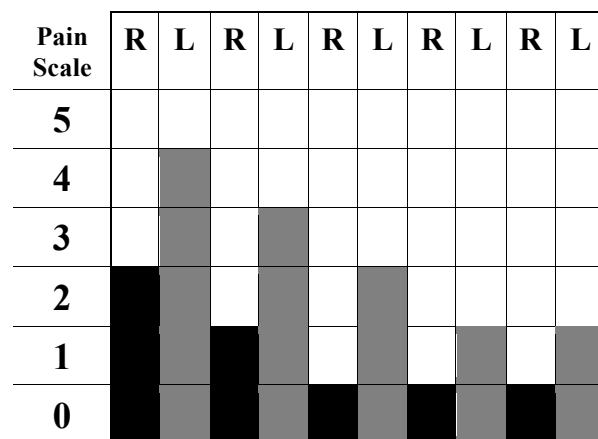
Day 4 – No Mask



Day 5 – Mask



Day 5 – No Mask



**Figure 3:** Collagen Gel Mask



**Figure 4:** Split Face Application of Collagen Gel Mask



## Discussion

In this case study, the subject experienced noticeable soothing and reduction in discomfort in the acute phase post PDT treatment. The skin felt softer and smoother on the treatment side compared to more tightness and dryness on the untreated side. The skin appeared smoother, more reflective and less erythematous on the collagen gel mask treatment side compared to the other.

The collagen gel mask is pliable, adheres to the skin well and is tightly occlusive. The water-based formula allows for evaporation on the outer side of the mask, resulting in cooling

and added soothing effect in addition to the soothing properties of the ingredients. The mask is easy to apply, sits lightly on the face and can be manipulated to suit various facial shapes and sizes. The mask can be applied as often as desired, but for this purpose was used only on the right side and twice daily to assess potential subjective and objective improvements in view of patient comfort and skin appearance.

## Conclusion

Post treatment collagen gel mask with this particular formulation provides a simple to use, quick and effective discomfort relief option to patients in office as well as for continued use at home over days following office based dermatological procedures.

Additional studies are warranted to evaluate the safety and efficacy of the collagen gel mask as an adjunct to a variety of procedures in order to optimize patient outcomes, standardize treatment regimens and achieve statistically significant result.

## References

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