



Hybrid laser in the Vitiligo Treatment

Aristides Arellano-Huacuja , Dafne Arellano Montalvo, Anja Arellano Montalvo

Clinica Dermatologica Y Cirugia Estetica De Puebla, Puebla, Pue., Mexico

Correspondence

Dr. Aristides Arellano-Huacuja FICS
Clinica Dermatologica Y Cirugia Estetica De Puebla, Puebla, Pue., Mexico
E-mail: aristidesarella@yahoo.com.mx

- Received Date: 15 May 2023
- Accepted Date: 22 May 2023
- Publication Date: 28 May 2023

Copyright

© 2022 Authors. This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International license.

Vitiligo is a chronic (long-lasting) disorder that causes some areas of the skin to lose their natural color. No one knows exactly what causes vitiligo, but it may be an autoimmune disease in which the immune system attacks and destroys the cells that produce the pigmentation.

Vitiligo occurs when the cells that produce pigment (melanocytes) die or stop producing melanin, the pigment that gives skin, hair, and eyes color. Patches of affected skin become lighter or whiter.

Although there is no cure for vitiligo, many patients manage to repigment the white spots caused by the disease with the right treatment. Especially in areas as visible as the face. There is no known cure for vitiligo.

There are various treatments that control the disease but nevertheless the result and the constancy that is required to see the improvement makes patients desist from them.

Radiotherapy and Ultraviolet Rays deal with the treatment of chronic dermatoses. A dermatosis is any skin abnormality or appearance of skin lesions.

Phototherapy has a 50-year history of safe use. In all this time there has been no increased risk or worsening of symptoms. It is safely prescribed for adults, children, people who are immunosuppressed, and pregnant or lactating women. It is safe and effective.

UV phototherapy units can provide UVA, UVB, or narrow-band UVB lights. This phototherapy treatment called PUVA therapy or Photo therapy provide great success.

One of the advantages of phototherapy booths is that they allow the treatment to be uniform both on the body and on the face, having privacy, with no untreated cold areas. On the other hand, it can be performed once a week without pain and without risk to the patient.

In the case of biological treatments with Raptivall, Enbrell or Amevivell, only 21% of patients reach the PASI score of 75%. On average, only 29% of treated patients achieve a PASI score of 75% within 12 weeks of treatment. Compared to PUVA therapy, usually 20 to 25 treatments are needed to achieve 90-95% improvement in patients.

We must remember that with immunosuppressive treatments there are side effects that are sometimes not easy to overcome, IM or IV injections are required for each cycle of treatment and to date their long-term safety has not been proven. On the other hand, with phototherapy, the side effects are minimal, the treatment is performed standing in front of a light for 5 to 10 minutes and it has been in use for decades, so the safety of the procedure is more than proven.

Currently we are using the Hybrid laser from the Alma laser company for the stimulation of melanocytes in the production of melanin. The heat that produces the CO2 laser in skin tones 3 to 5 increase the pigmentation risk which is the result that we are looking for to produce a recovery from the natural skin tone. The sessions are carried out every 3 weeks for the melanin to be produced by the melanocytes. In just 5 sessions the changes obtained are very good and lasting.

Conclusion

It is important to clarify that PUVA therapy cabins are not the same as tanning cabins, the difference consists in the intensity of the light and the type of ray they emit, so the patient must be sure that it is medical equipment and not cosmetic.

So far, the results have been very good, but the study of more patients will give us the result of the benefits produced by the Alma Hybrid treatment. In the same way we must demonstrate if the results in body hypochromia give the same results as in the face.

Citation: Arellano-Huacuja A, Montalvo DA, Montalvo AA. Hybrid Laser in The Vitiligo Treatment. Updates Dermatol Res. 2023;1(1):1-2.



Before and after pictures after the laser treatment procedure.

References

1. Nino M, Calabro G, Santoanni P. Topical delivery of active principles: The field of dermatological research. *Dermatol Online J.* 2010;16(1):4.
2. Ibrahim O, Wenande E, Hogan S, Arndt KA, Haedersdal M, Dover JS. Challenges to laser-assisted drug delivery: Applying theory to clinical practice. *Lasers Surg Med.* 2018;50:20-7.
3. Sandberg C, Halldin CB, Ericson MB, Larko O, Krogstad AL Wennberg AM. Bioavailability of aminolevulinic acid and methylaminolaevulinate in basal cell carcinomas: A perfusion study using microdialysis in vivo. *Br J Dermatol* 2008;159(5):1170-1176.
4. Soler AM, Warloe T, Berner A, Giercksky KE. A follow-up study of recurrence and cosmesis in completely responding superficial and nodular basal cell carcinomas treated with methyl 5-aminolaevulinate-based photodynamic therapy alone and with prior curettage. *Br J Dermatol* 2001;145(3):467-471.
5. Skalar LR, Burnett CT, Waibel JS, Moy RL, Ozog DM. Laser Assisted Drug Delivery: A review of an Evolving Technology. *Lasers Surg Med.* 2014;46:249-262.
6. Ortiz AE, Goldman MP, Fitzpatrick RE. Ablative CO2 lasers for skin tightening: traditional versus fractional. *Dermatol Surg.* 2014;40 Suppl 12:S147-S151.