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RESEARCH -

INFLUENCE OF BIOBEAM DEVICE ON PATIENTS WITH ACNE VULGARIS

Thirty patients were examined

Ages: 14-36

Female: 21 Male: 9

Acne Vulgaris

Location: Face: 30 patients.

All patients had comedones and pustules

Feeling of inflamation (pus)

Patients were examined at zero hour, after two, four, and six weeks.

BioBeam devices of types: placebo, I.R., Red were distributed.

Neither the patients nor the staff knew about the device and it's type.

The key was in the hands of the research department of Amcor (the inventor of the device), and it was decoded upon receipt of the results.

Each patient received treatment once a day with the device, at a distance of 5-6 cm. from the point of infection, with a CW - Pulse device for approximately 4-6 minutes on each area. Average treatment lasted 15-20 minutes per day, depending upon the Areas of treatment were: chin, cheeks, forehead, and the tests were carried out according to the number of infections classified by stages. All patients, excluding two, completed the treatment and were present at the time established for follow-up.

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Results

The placebo group consisted of ten patients, one of which had his treatment interrupted after one week, and nine who completed the treatment.

The I.R group consisted of ten patients, one of which had his treatment interrupted, and nine who completed the treatment.

The Red group consisted of ten patients, all of which completed the treatment.

In the placebo group, 6 out of 9 patients experienced a slight improvement (from 1-10) in the comedones and in the number of infected nodules.

One patient experienced considerable improvement and two did not experience any improvement at all.

In the I.R. group, 7 patients experienced, slight to medium improvement (10-20) in the number of comedones and of nodules. In 3 cases there was considerable improvement, and in 2 cases there was in improvement at all.

In the Red group:

6 patients experienced significant improvement in the number of comedones (20-30 and an even more significant improvement in the number of nodules, with 5 patients experiencing almost complete recovery. Two patients underwent complete recovery and the number of comedones decreased to 0, while with 1 patient minor improvement was observed, if at all.

Statistically speaking we may say that, the improvement with the I.R. treatment as compared to the placebo group is not significant.

On the other hand, the group treated with the Red device showed significant improvement ($P=.05$) in the treatment of comedones, and extremely significant ($P=.02$) results in the cure of nodules.

Conclusions:

In our opinion, the Red BioBeam device, used in a randomized double blind study, proved to be efficient in the treatment of Deep Acne, especially if nodular or cystic.
There is room for widening the group of patients and extending the duration of treatment in order to establish medical indications for the device.

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RESULTS OF DOUBLE BLIND STUDY

6 WEEKS TREATMENT

BB-660 GROUP

20% - COMPLETE RECOVERY
50% - ALMOST COMPLETE RECOVERY
20% - CONSIDERABLE IMPROVEMENT
10% - NO IMPROVEMENT

NODULES CURE - VERY SIGNIFICANT (P=.02)
COMODONS CURE - SIGNIFICANT (P=.05)

CONTROL GROUP

67% - SLIGHT IMPROVEMENT
11% - CONSIDERABLE IMPROVEMENT
11% - NO IMPROVEMENT

LOW LEVEL NARROW BAND LIGHT TREATMENT OF ACNE VULGARIS

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Introduction

Phototherapy treatment using low level intensity visible red light (soft laser) for wound healing is well-documented. However, its worldwide use is prohibitively expensive and requires a clinical setting. Using a handy, safe and low-cost red (660 nm) and infra-red (940 nm) light system (Bio-Beam narrow band light treatment system), we performed a clinical trial to evaluate the therapeutic effect of low level narrow band light treatment on pustular Acne Vulgaris.

Design

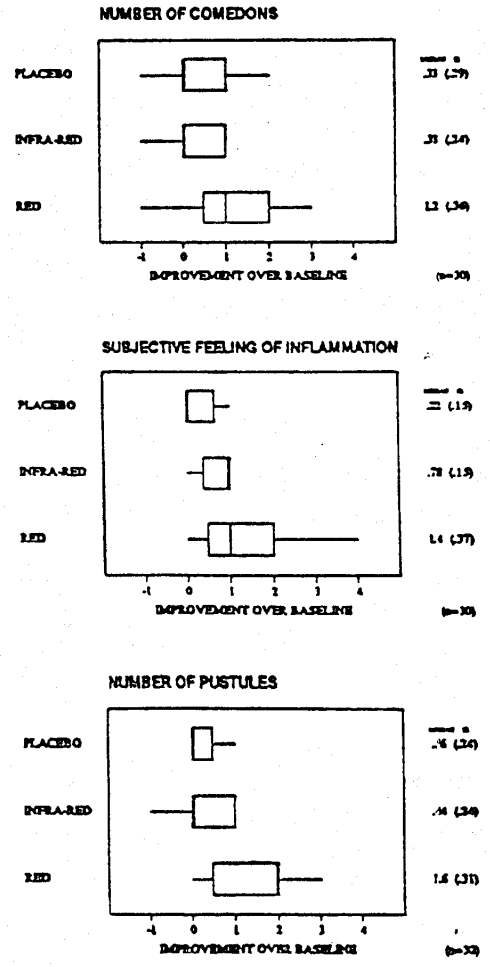
Double-blind randomized clinical trial comparing red (660 nm), infrared (940 nm) and placebo light emitters.

Patients

Thirty patients with pustular Acne Vulgaris randomly assigned to the three treatment groups.

Intervention

Self-applied treatment for 5 minutes on each infected area twice a day for 6 weeks.



Main outcome measures

Patients were evaluated at zero hour and after two, four and six weeks of treatment. Comedons, pustules and subjective feeling of inflammation were measured and coded on a scale of 1 to 5, separately, for each criterion. Changes on this scale from baseline were recorded for each subject and evaluated at the end of the study.

Results

The group treated by infra-red light did show some improvement in all three aspects, but the differences were slight and statistically insignificant compared to the placebo group results.
However, the group treated by red light did exhibit an improvement greater by about one scale unit than that of the placebo group. The results were statistically insignificant in the comedon formation criteria ($p=0.9$) while for the pustule reduction and subjective feeling of inflammation the results were statistically significant (p values of.0 2 and.0 3).

Conclusions

Low level narrow band light treatment proved to be effective in reducing the inflammatory process in Acne Vulgaris. However, there is room to extend this study to a larger and more heterogeneous group of patients.