

Biopton Phototherapy in Surgical patients

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Citation

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Abstract

Biopton phototherapy has been used to treat many skin conditions successfully. We tried this modality in some of our surgical patients in different surgical specialties to treat wounds to promote quick healing. We found this phototherapy to be quite effective in enhancing the healing, reducing the time taken for healing and reducing the length of stay in the hospital as compared to the patients who did not receive this modality of treatment.

The outcome 26 surgical patients successfully treated with Biopton light therapy is presented.

INTRODUCTION

In 1981, the Hungarian biophysicist Dr. Marta Fenyo discovered that polarized light stimulated natural defense mechanisms. Her invention of the "Method and equipment for the stimulation of biologic process" won the main award in 1985 at the World Exhibition of Young Inventors in Pvlodiv and a gold medal at Brussels Eureka in 1996. This lead to the creation of the Biopton, a device used for skin disorders and wound healing.

MATERIALS AND METHODS

Twenty-six patients were included in the study; 22 from General Surgery and 4 from Plastic Surgery units. The details of the surgical conditions which were treated with Biopton were as follows:

Figure 1

Surgical Conditions	No of Patients
Diabetic foot	5
Bedsore	7
Post appendectomy wound infection	4
Related to GB surgery	2
PNS disease	1
Abdominal wall abscess post I&D	1
Hemorrhoidectomy	1
Thyroid surgery	1
Breast surgery	1
Carbuncle (nape of neck)	1
Umbilical fistula	1
Inguinal hernia repair	1

All patients received treatment for 5 minutes to 10 minutes for 7 to 30 days. In patients with pressure sores, longer duration of treatment was necessary to get optimum results.

RESULTS

There were no complications related to treatment itself. All patients showed varying degrees of enhanced wound healing.

The best results were in the young patients who required only 7 days to get perfect wound healing. The severity of wound infection was one factor which prolonged the duration of treatment in them.

The maximum duration of treatment was necessary for patients with deep pressure sores. This can be attributed to the poor general condition of the soft tissue itself related to deficient circulation.

DISCUSSION

Biopton is a polarized, polychromatic light but the spectrum does not contain UV radiation. Unlike laser, biopton light is incoherent or out-of-phase light which means that the light waves are not synchronized.

Biopton light therapy can act in a natural way by supporting the regenerative and rebalancing capacities of the body and thus help the body release its own healing potential. Once delivered to the tissues, the light energy promotes the process of biostimulation. Its main uses are in skin rejuvenation, leg ulcers, burns, wounds after operations and wounds after injuries.

The duration of therapy varies according to the underlying problem and the general condition of the patients. The younger the age of the patient, the better are the results of treatment and the lesser is its duration. Severe wound infections may require prolonged treatment to achieve

satisfactory outcome.

CONCLUSION

Bioptron light therapy can be used safely to treat surgical patients with different skin conditions. We recommend its use in infected surgical wounds to achieve good healing.

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