

PHOTO DYNAMIC *Therapy*

Photo Dynamic Therapy (or PDT as it is commonly called) is the latest “flavour of the month” treatment available to practitioners who have an interest in treating severely sun damaged skin. Yet not all skin specialists offer this treatment as it requires training, supportive staff and equipment.

DR MARIANNE DUVENAGE reports



WHAT IS PDT?

A PDT is a medical skin treatment that utilizes

a light sensitizing cream and a light source to treat a variety of skin conditions, such as aged, lax and sun damaged skin, fine lines and wrinkles, blotchy pigmentation and pre-cancerous sun spots (solar keratoses or SK`s for short). Improvement of enlarged oil glands on the face, enlarged pores and dramatic improvement in active acne is also seen.



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The PDT Process

PDT essentially has three steps:

1 A light-sensitizing cream is first applied to the area of skin that needs to be treated

2 This is then followed by a waiting period for an appropriate time in order for the cream to be drawn into the skin

3 Finally, a light source of a specific wavelength to the skin is applied.

The application of the light activates the cream, and this activated cream then destroys the tissue. The light is not a laser or infrared, but simply a very strong visible red light (635nm). Charged oxygen and other free radicals destroy all the cells that have absorbed the cream, so it destroys only abnormal cells. The reaction is limited to the target tissue, which is not destroyed indiscriminately.

The sacred Indian book, Atharva Veda, dating back to 1400 BC, de-

scribes the use of light therapy. So this is not a new treatment!

The Early Years

Initially, light sensitizers were swallowed. This was problematic as the patients often remained light sensitive on the whole skin for a long period afterwards.

This prompted researchers to start looking for products that could be applied to limited areas of the skin.

In 1999, the FDA cleared the use of 5-aminolevulinic acid (5-ALA) for the treatment of numerous sun spots (SK`s). Then in 2001, met-ALA was approved for the use in basal cell carcinoma, a particular form of skin cancer and for AK`s.