

CASE REPORT

Case study of Repigmentation of Vitiligo patches with phototherapy at Clinical Lab

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Manuscript Details	ABSTRACT
<p>Received : 13.05.2015 Revised : 09.06.2015 Re- Revised: 15.06.2015 Accepted: 19.06.2015 Published: 30.06.2015</p>	<p>Vitiligo is a common skin disorder disease that causes white patches on the skin due to destruction of melanocytes. It leads to a great degree of psychological distress. Including India vitiligo exists in many parts of the world. In its classical forms it is easily recognised and diagnosed. This case study discusses the methods for the treatment of vitiligo patches which are based on evidence. Phototherapy is being used for the treatment of vitiligo. The white patches', growing in size with time is referred as non segmental type vitiligo. It is difficult to repigment the white patch without long treatment course. We have treated 5 patients aged 17-50 years having no family history of vitiligo. The patient were having 5% to 42% spread of <i>vitiligo vulgaris</i> patches on their body. The phototherapy was carried out in consultation with the skin specialist and it was decided that the initial intensity of dose used should be about 8mW/cm². Irradiation time of first treatment was 3 minute, corresponding to energy dose of 1.6 J/cm² (Energy dose = Time X Intensity). The pulse repetition rate was 5 Hz and pulse width was 10 nano second. The treatment schedule was twice a week. The irradiation was gradually increased after time interval of one month. The results were found quite satisfactory, 30% to 70% pigmentation was obtained over a period of six months.</p> <p>Keywords:Phototherapy, Vitiligo treatment, UVB, Re-pigmentation</p>
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<p>Cite this article as: Lad AB and Kathale UR. Initiating repigmentation in Vitiligo patches using Phototherapy. <i>Int. Res. J. of Science & Engineering</i>, 2015; Vol. 3 (3):131-133.</p>	<p>INTRODUCTION</p> <p>Pigmentation is stimulated by UV lamps at many clinics (James and Jyotendra, 2002; Manchini and Tsourelis, 2003). How are melanocytes disappearing in vitiliginous skin and what can be</p>
<p>Acknowledgement : Dr. Sandip S. Arsad, MD, Darpan Skin Care Clinic has permitted the free use of UVB unit for the case study. Daavlin company for narrow band UVB phototherapy for graph, documenting the therapeutic effectiveness and safety benefits of narrow band UVB treatment.</p>	
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done to fix the problem? The debate, as reflected by reviews published recently is fuelled by a multitude of facts and arguments (Brazzelli et al., 2007), but definitive answers need more work. The main objective in the treatment of vitiligo is to stimulate the adjacent melanocytes presumably those persisting within the underlying hair follicles, to migrate and repopulate the vitiliginous areas (James, 2011; Nicolaidu et al., 2009; Asawanonda et al., 2008; Chanisada, 2007; Anbar et al., 2006; Ongenae et al., 2005;). This treatment may require few months and final results may not be always 100% satisfactory. In the treatment of vitiligo narrow band UVB photo therapy has been found to be more effective. The Authors have tried to carry out the study of treatment of vitiligo using UV Lamps 311 nm wavelength at clinical lab.

METHOD

The patient was given only NB UVB therapy twice a week for nearly six months. The visits were fixed and photographs of affected area were taken at regular intervals. Graphically the repigmentation rate was calculated. No drugs were given during the treatment. The exposure time and dose were decided in consultation with physician.



Fig. 1: Daavlin Phototherapy Unit

RESULT

Phototherapy with selective wavelength 311nm allows longer exposure and accordingly dose intensity can be increased. In the case study the exposure to patient was twice a week with increasing exposure time no complain from the patient was registered. The patient got benefit of faster repigmentation with safety. The treatment took shorter period than expected to achieve the repigmentation which assured the effectiveness of NB UVB therapy. The patient need not spent any amount for medicine of any kind. The treated area did not show any sign of re appearance of white patch in nearby region of the skin. Narrow Band UVB therapy is emerging out as an effective tool and a strong alternative to traditional treatment modalities in practice for the treatment of vitiligo. The units available in different shapes and sizes with varying power.



Fig.2 Patient under Treatment

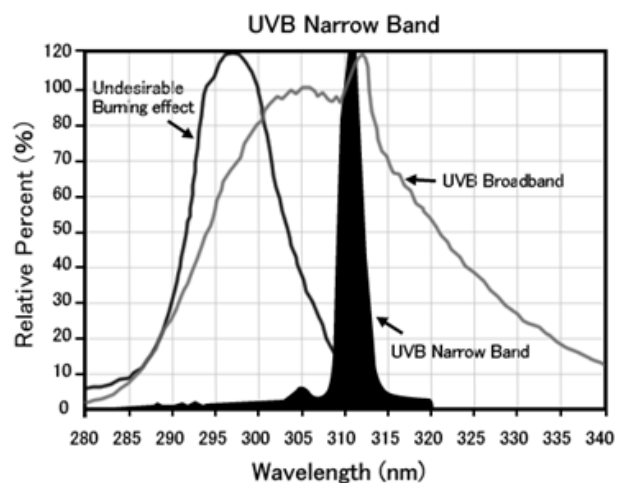


Fig. 3: Relative percent of Re-pigmentation

It was found that the rate of repigmentation is rapid from the boundary of vitiligenous patch. At few patches hairs become brown black first and then help repigmentation at the roots spreading the melanocytes to the nearby white patches. Depigmented portion of the back and dorsa of fingers i.e. non hairy portion were least responsible. These repigmented patches smaller in size coalesced into large pigmented patch. After few exposures uniformly repigmented patches were seen these later merged into neighboring skin.

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