The Decline of PUVA Therapy in Vietnam: Effective Treatment of Narrow Band UVB in Vietnamese Vitiligo Patients

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Abstract

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The present study aims to examine the efficacy and safety of Narrowband ultraviolet B (NB-UVB) in Vietnamese vitiligo patients. The starting dose for adults from 15 year old and children less than 15 years old was 200 mJ/cm² and 150 mJ/cm², respectively, with 50 mJ/cm² and 20 mJ/cm² dose increments at each subsequent visit, respectively, until mild erythema lasting less than 24 hrs reported by patient, given for a period of 6 months. Response to therapy was assessed based on VASI score changes. Results: Based upon our results, 38.7% (12/31) of patients achieved a very good response of more than 50% VASI changes, 41.9% (13/31) obtained a good response (VASI changed from 25 to 50%). Total good and very good response to therapy significantly increased with prolonged treatment, increasing from 19.4% to 64.5% and 41.9% to 59.3% respectively, with 50 mJ/cm² and 20 mJ/cm² dose increments at each subsequent visit, respectively, until mild erythema lasting less than 24 hrs reported by patient, given for a period of 6 months. Response to therapy was assessed based on VASI score changes. CONCLUSION: NB-UVB therapy is an effective and safe tool in the management of Vietnamese vitiligo patients.

Methods

A total of 31 vitiligo patients (14 males, 17 females; 28 with Fitzpatrick skin’s type IV and only 3 patients with Fitzpatrick skin’s type III), mean age 30 years. The majority of patients (29/31) had NSV, and only 2 patients had SV.

Local NB-UVB 311 nm irradiation was indicated for vitiligo patients with 2% and less than 2% body surface involved (12 patients). Whole body NB-
UVB 311 nm irradiation was indicated for those with more than 2% body surface involved (19 patients). Patients were treated with thrice-weekly exposures on non-consecutive days. The starting dose for adults from 15 years old and children less than 15 years old was 200 mJ/cm² and 150 mJ/cm², respectively, with 50 mJ/cm² and 20 mJ/cm² dose increments at each subsequent visit, respectively, until mild erythema lasting less than 24 hrs reported by patient, given for a period of 6 months. The response to NB-UVB therapy was examined based on changes of vitiligo area severity index (VASI) after treatment, which took into account of both percentage of re-pigmentation and the reduction of lesion’s area [6].

Results

After 6-month treatment, 38.7% obtained a very good response, 41.9% patients achieved a good response, the proportion of poor, very poor and no response was equally and accounted for only 6.5% as shown in Figure 1.

FIGURE 1: A case of 10 years old male with very good response to therapy: (a) before treatment, (b) after 2 months - VASI decreased 16.4%, (c) after 4 months - VASI decreased 58%, (c) after 6 months VASI decreased 95%

Association between response to therapy and the duration of the treatment was shown in Figure 2.

FIGURE 2: Association between response to therapy and the duration of the treatment

Among 31 patients, total good and very good response to therapy were significantly associated with prolonged treatment, increasing from 19.4% to 64.5% and 80.6% after 2, 4 and 6-month treatment, respectively. Association between response to therapy and localised or generalised NSV was shown in Figure 3.

FIGURE 3: Association between response to therapy and localised or generalised NSV

Total good and very good response to therapy was observed in localised NSV significantly more frequently than in generalised NSV patients (55.6% versus 18.2%). This difference is statistically different.

In our study, good and very good response to therapy significantly increased with prolonged treatment and was observed in localised NSV significantly more frequently than in generalised NSV patients, which are consistent with previous studies [7], [8], [9], [10]. The actual good and very good response rate to therapy will properly be higher if the evaluation time is longer than 6 months. Adverse effects in our study were minimal which is similar to that reported in the literature.

In conclusion, our study proves that NB-UVB therapy is an effective and safe tool in the management of Vietnamese vitiligo patients. Further study is recommended to prolong the treatment duration and follow up the stability of re-pigmentation.

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