PHOTOTHERAPY, PHOTODYNAMIC THERAPY

TARGETED PHOTOTHERAPY: AN 8 YEAR EXPERIENCE IN A TERTIARY DERMATOLOGICAL CENTRE

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Introduction: Targeted phototherapy is the localized delivery of ultraviolet (UV) light to affected areas of skin and it is commonly indicated for psoriasis, vitiligo, and atopic dermatitis. Little has been published about targeted phototherapy in Asian patients, especially in large numbers.

Objective: To review our experience with targeted phototherapy in a predominantly Asian population. Patient demographics, efficacy and side effects from targeted phototherapy were captured.

Materials and Methods: All patients who had undergone targeted phototherapy at our centre over 8 years from 2008-2015 were included. Descriptive statistics as well as multivariate logistic regression analysis was conducted using STATA Version 15.

Results: 401 patients were identified, with a mean age of 51 years. 38.1% were female, 61.9% were male. Majority were Chinese (69.3%), followed by Malay (11%) and Indian (9%). 31.9% of patients had psoriasis, 41.4% had atopic dermatitis, 13.2% had vitiligo and 15% had other skin conditions including mycosis fungoides and alopecia areata. 14.7% of patients reported significant side effects from phototherapy. The main side effect reported was erythema (9%), followed by blistering and hyperpigmentation (2.2% each). None developed skin malignancies after phototherapy was commenced. Significant improvement was seen for sites involving the upper and lower limbs, anterior trunk and back ($p<0.05$). There was no association of improvement with phototherapy in sites involving the scalp, face and buttocks. Concurrent topical therapy including emollients, topical steroids alone and with combination of Vitamin-D analogues were shown to be associated with improvement in psoriasis patients ($p<0.05$).

Conclusions: Asian patients can tolerate targeted phototherapy with minimal side effects and low skin cancer risk. Development of lesions over the limbs and trunk portends a favourable response to phototherapy. Concurrent treatment with emollients, topical steroids

and vitamin-D analogues increases treatment response in patients with psoriasis.