PHOTOTHERAPY, PHOTODYNAMIC THERAPY

DOES PHOTOTHERAPY CHANGE LONG TERM CLINICAL OUTCOMES IN VITILIGO? A TEN-YEAR FOLLOW UP STUDY.

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Introduction: Vitiligo is an autoimmune condition resulting in melanocyte destruction and depigmentation. Almost 50% of those affected are below 20-years of age and impart significant psychosocial impact. Treatment is challenging and phototherapy has emerged as the gold standard. Significant repigmentation is frequently observed after phototherapy. However, long-term clinical responses of vitiligo following phototherapy has not been evaluated.

Objective: To examine long-term clinical outcomes of vitiligo 10-years after phototherapy treatment.

Materials & Methods: A randomised double-blind trial of oral psoralen-UV-A (PUVA) vs narrowband-UV-B (NB-UVB) was conducted in 2002-2004. The trial involved 50 non-segmental vitiligo patients and demonstrated NB-UVB was superior to oral PUVA. Ten years later, we invited original trial participants to return. Body surface area with vitiligo (BSA-V) of the face, body, hands and overall was assessed and compared with photography from the trial. BSA-V was translated to a 0-5 severity scale (<1%=0; 1%-<10%=1; 10%-<25%=2; 25%-<50%=3; 50%-<75%=4; ≥75%=5). Using Wilcoxon signed-rank test, median BSA-V of each area and overall was compared between i) pre-phototherapy vs post-phototherapy; ii) pre-phototherapy vs 10-year follow-up.

Results: Twenty-three patients returned for review, of which 16 had received PUVA and 7 had received NB-UVB in the original trial. Phototherapy administered in the original trial produced a significant improvement in overall (p=0.0007), face (p=0.002), and body (p=0.005) BSA-V whilst hand BSA-V remained unchanged. At 10-year follow-up, overall (p=0.003) and hand (p=0.001) BSA-V was significantly worse than prior phototherapy, whilst face BSA-V trended worse. No cutaneous malignancies were detected at follow-up.

Conclusions: Findings reaffirm phototherapy to be both safe and effective with significant improvement immediately post treatment in all regions except acral areas. However, this is the first audit to evaluate long-term clinical outcomes of vitiligo following phototherapy and

results highlight sustained improvement was absent and overall severity in fact progressed at 10-year follow up.