



DERMOSCOPY AND SKIN IMAGING

UTILIZATION OF CAPILLARY DENSITY AND DIAMETER MEASUREMENTS BY VIDEOCAPILLAROSCOPY AS AN EARLY INDICATOR FOR THERAPEUTIC RESPONSE TO ADALIMUMAB IN PLAQUE PSORIASIS

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Background: It has been reported that early indication of therapeutic response (TR) is desirable for the management of psoriasis.

Objective: The aim of this study is to determine if early changes in lesional vasculature by videocapillaroscopy (VC) correlate with TR (PASI 75) to adalimumab (ADA) therapy in psoriasis.

Materials and Methods: This was a single-center, prospective, pilot study. Adults, either sex, with 2 active psoriatic plaques as target lesions, and about to initiate subcutaneous ADA (80mg at baseline and then 40mg every other week) were enrolled. At Week 0, 2, 4, 6, 8, 12, 16 and 24, PASI, DLQI and PGA scores were determined along with standardized target lesion photos and VC images. Capillary density and diameter were measured from VC images and correlated to PASI, PGA and DLQI scores.

Results: Twelve subjects (mean age= 50.2 yrs; 9 males) completed the study. As early as week 6, percentage change in mean capillary density correlated with PASI and PGA scores at week 24 (Spearman's correlation= 0.75 and 0.65, p=0.007 and p=0.02, respectively), but not with DLQI.

Conclusions: VC changes in lesional vasculature as early as week 6 positively correlated with TR at week 24 for PASI and PGA, thus supporting VC as an objective non-invasive, early-indicator method for TR. Future exploration is warranted to further inform dermatologists on the utility of VC in monitoring TR to biologic agents in the management of psoriasis.

