



DERMOSCOPY AND SKIN IMAGING

DERMOSCOPY OF PATCH TEST REACTIONS.

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Background: correct interpretation of patch test reactions, especially differentiating weak positive and/or doubtful allergic reactions from irritant reactions, may be rather hard.

Objective: to describe the main dermoscopic features of patch test reactions and to assess the suitability of dermoscopy in differentiating allergic from irritant reactions in clinical setting.

Materials and Methods: all consecutive adult outpatients patch tested at our Allergy Unit during a 6-month period who developed any skin reaction were eligible for this cross-sectional study. Patch test reading was performed by an experienced dermatologist, in accordance with the European Society of Contact Dermatitis guidelines. At the 72-hour reading, allergic and irritant patch test reactions were captured with both a digital camera and a digital dermoscopic system. For each reaction, clinical and dermoscopic variables were separately assessed and scored (each dermoscopic variable was arbitrarily graded according to a 4-point scale) and then compared.

Results: in 94 allergic reactions dermoscopy showed i) intense erythema (100%), ii) dense polymorphic vessels (97.9%), iii) whitish soap bubble-like vesicles varying in size, number and arrangement (95.7%), iv) orange-yellowish patchy areas and crusts (35%). Scores of erythema and vessels were significantly higher in allergic than in the 33 irritant reactions, in which vesicles and orange-yellowish patches were a sporadic finding. "Poral pattern" was observed in 85.7% of irritant reactions to cobalt.

Conclusions: the dermoscopic patterns of allergic and irritant patch test reactions significantly differ. For this reason, dermoscopy could be useful in differentiating these two types of conditions by allowing the identification of sensitive and/or specific markers for each of these reactions, especially for allergic forms.

