

SKIN AND INDOOR BIOTIC POLLUTION: DERMATITIS CAUSED BY ARTHROPODS IN DOMESTIC ENVIRONMENT

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Ectoparasitosis caused by arthropods in domestic environments is a topic frequently observed during Dermatologist's daily job (1). This is an increasing health problem in industrialized countries, but systematic studies on skin diseases caused by mites and insects in indoor environments have been rarely reported and only several case reports of skin injuries induced by a large variety of arthropods were described, mainly caused by *Pyemotes ventricosus* and *Glycyphagus domesticus* (2,3,4,5) among mites and Formicidae and Bethyilidae families among insects (6,7). The presence of arthropods in indoor environments is conditioned by microclimatic factors, mainly high temperature and high relative humidity, arthropod reservoirs, such as plants, pets, molds on walls and woodworm eaten wooden structures (parquet, beams, furniture, firewood). Moreover, the reproductive cycle of arthropods is influenced by seasons, with increased risk of morbidity for humans.

The most frequent clinical picture is papular urticaria, characterized by erythematous-oedematous and papular lesions, that are frequently centered by tiny vesicles. We prefer to name this clinical picture strophulus instead of papular urticaria, which is frequently used to indicate skin diseases with different aetiologic and pathogenic mechanisms. Other clinical pictures are erythematous and escoriated papules, urticaria and scabies-like lesions, erythematous papules and pustules. Only rarely can the lesions appear such as varicella-like and erythema-multiform like eruption. Skin lesions mostly involve trunk and upper limbs, can be scattered or clustered in circumscribed areas or in linear arrangement, last from 2-10 days, are itchy and painless. Possible temporary hyperpigmentation and rare necrotic and ecchymotic sequelae are possible. Histopathology shows eosinophilic spongiosis, eosinophilia and possible vesicles with dermal lymphocytic and eosinophilic perivascular infiltrate. The differential diagnosis is made with pseudolymphoma and some eosinophilic skin diseases.

Even if the clinical history and the clinical picture are often suggestive for ectoparasitoses, until our studies there were no validated methods to relate the presence of arthropods to specific ectoparasitoses and to relate the clinical features to the parasitological data. The Authors show the results of a prospective case-series study recently published (8) and conducted in one-year period in the three Dermatologic Clinics of Perugia, Bari and Ferrara.

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