

# Coexistence of psoriasis and atopic dermatitis

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#### ABSTRACT

Psoriasis and atopic dermatitis (AD) are diseases of still unknown precisely etiology. Concomitance of psoriasis and AD is relatively very rare, but it is constantly under discussion whether these disorders are etiopathologically connected. We report case of 55-year old patient, with a 25 year history of psoriasis, hospitalized in our Department because of exacerbation of atopic dermatitis diagnosed two years ago. We agree with previous reports that due to rare prevalence of concomitance of psoriasis and AD, those diseases are rather mutually exclusive.

Key words: Atopic dermatitis; Coexistence; Psoriasis

#### INTRODUCTION

Psoriasis and atopic dermatitis are chronic dermatological disorders.

Psoriasis is a recurrent inflammatory skin disease which affects around 2% of the population and is characterized by erythematous papules and plaques covered with silvery white scales. [1]. Atopic dermatitis (AD) is a common skin condition, particularly in children, regarded as one of the 50 most prevalent diseases worldwide [2]. Prevalence of AD in adult patients is around 1-3 % [3]. Patients present various lesions: exudative papules, erythematous plaques, vesicles, erosions with crusts, excoriations and lichenification [1].

Although incidence of psoriasis and AD occurring separately is relatively high, coexistence of both is rare and, thus, not yet sufficiently investigated [4-6].

#### CASE REPORT

We present a 55-year-old male with over 25 year history of classical clinical picture of psoriasis vulgaris. Course

of psoriasis was exacerbated by infections of the upper respiratory tract.

Patient had asthma and confirmed allergy to house dust mite and total IgE substantially elevated. Two years ago, due to the fulfilled 3 of 4 major and 10 out of 23 minor Hanifin and Raika criteria, atopic dermatitis was diagnosed [7].

Patient was hospitalized in our Department of Dermatology because of the exacerbation of atopic dermatitis. On admission has presented two types of lesions: psoriatic ones on the scalp and distal parts of extremities, and typical for AD exudative papules with excoriations and lichenification disseminated on the face, the trunk and extremities. The patient complained of itching of atopic lesions but not of psoriatic ones. Course of skin lesions was specific: while exacerbation of atopic dermatitis was coming, psoriasis had a tendency to remission.

Histopathology taken from the lesion on the left arm revealed features of atopic dermatitis: hypertrophic orthokeratotic stratum corneum; preserved stratum granulosum; spongiosis with vesicle formation in

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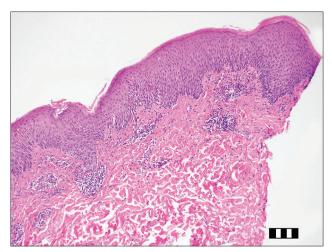


Figure 1: Skin sample collected from clinically confirmed atopic dermatitis in 55-year-old male. Hyper and orthokeratotic stratum corneum; preserved stratum granulosum; spongiosis in acanthotic stratum spinosum; mixed inflammatory infiltrate mostly around vessels in the papillary dermis. Hematoxyline-eosin staining. Scale bar:  $100 \ \mu m$ .

acanthotic stratum spinosum; mixed inflammatory infiltration mostly around vessels in the papillary dermis (Fig. 1).

Prior to the study, patient gave written consent to the examination and biopsy after having been informed about the procedure.

#### DISCUSSION

While new cases of concomitance of psoriasis and AD are still coming, it is constantly under discussion whether these disorders are connected.

Precise mechanisms of AD and psoriasis development are still unclear.

AD demonstrate phenotypical expression of a Th2-driven lymphokine profile and psoriasis is rather Th1-mediated disease [8]. Both diseases appear in genetically predisposed individuals after exposition on same environmental conditions.

In some cases of AD a genetic defect in the filaggrin gene FLG (leading to barrier dysfunction) was proved. Other genetically determined factors involved in pathogenesis of both diseases are under investigation [9,10].

Henseler et al. has statistically proved that relatively very low incidence of concomitance of psoriasis and AD

support previous hypothesis by Christophers et al., that both diseases are mutually exclusive [6,8,11].

Presumably, nowadays, we maintain that opinion.

At the end, due to concomitance of AD and psoriasis, we suggest, it would be noteworthy to modify or just wider discuss Eichenfield criteria (for diagnosis of AD), where psoriasis is treated as an exclusionary condition for AD [12].

### CONSENT

The examination of the patient was conducted according to the Declaration of Helsinki principles.

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