

Successful use of Dupilumab for the treatment of genital Atopic Dermatitis, a neglected anatomic site

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Dear Editor, Atopic dermatitis (AD) is a chronic inflammatory disease that may involve any cutaneous site, including the genital area. The involvement of genital area may greatly impair patients' quality of life.¹ However, the inspection of genitals in clinical practice is not usually conducted during the routine physical examination of AD patients and patients are reluctant to show this anatomic area as well as.²⁻³ Therefore, the genital presentation of AD is frequently neglected and underreported.² With this study, which involved patients from two different Italian medical centers (Ospedale San Raffaele IRCCS in Milano and Sapienza University of Rome), we decided to evaluate the incidence of genital AD in patients with moderate-severe AD and the relative response to anti IL4/IL13 Dupilumab.

Out of 146 patients with AD, a total of 27 patients (18.7%) with an involvement of the genital area have been included. They were 13 females and 14 males, with a median age of 33 years (ranging 18-81). Twenty-one patients (n=21) showed other comorbidities, with 11 patients with rhinoconjunctivitis, 7 cases of asthma, one case of alopecia areata universalis, one case of recurrent chronic herpes virus type 2 (HSV2) and one case of streptococcal infection. Regarding previous treatments, 26 patients used topical steroids, 19 used topical immunomodulating treatments, 13

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performed systemic steroids, 22 performed cyclosporine. After starting treatment with dupilumab, only 2 patients continued to use topical steroids as well. The main associated anatomic areas were head/neck region (n=24) and upper limbs, specifically the hands (n=22). Regarding symptoms, all patients reported itching, 3 reported recurrent uro-genital infections (2 cystitis and 1 *Candida* sp. infection), while 1 patient reported only a single event of cystitis. Median EASI (Eczema Area and Severity Index) during the first visit was 27 (ranging 24-60), median DLQI (Dermatology Life Quality Index) was 15 (ranging 6-30), while median NRS (Peak Pruritus Numerical Rating Scale) was 9 (ranging 7-10). After 16 weeks of treatment, median EASI, DLQI and NRS were 0. Performing Mann-Whitney test, a statistical significance was reached for the variables EASI ($p < 0.0001$), DLQI ($p < 0.0001$) and NRS ($p < 0.0001$). (Fig.1) After starting treatment with dupilumab, no patient reported new events of uro-genital infection and all patients reported a reduction of itching, with an improvement of QOL as well.

The involvement of genital lesions in AD ranges between 10.3% and 45%.²⁻³ In our casuistic study records the percentage of AD was 18.7%, confirming current literature data. Unlike Woo et al.,² we found that genital AD was more associated with an involvement of head/neck region and upper limbs, particularly hands. We did not find an increased incidence of recurrent genito-urinary infection in our sample, our patients showed high DLQI-score. After 16 weeks of Dupilumab treatment, a generalized improvement including the genital area, has been obtained in all the patients.

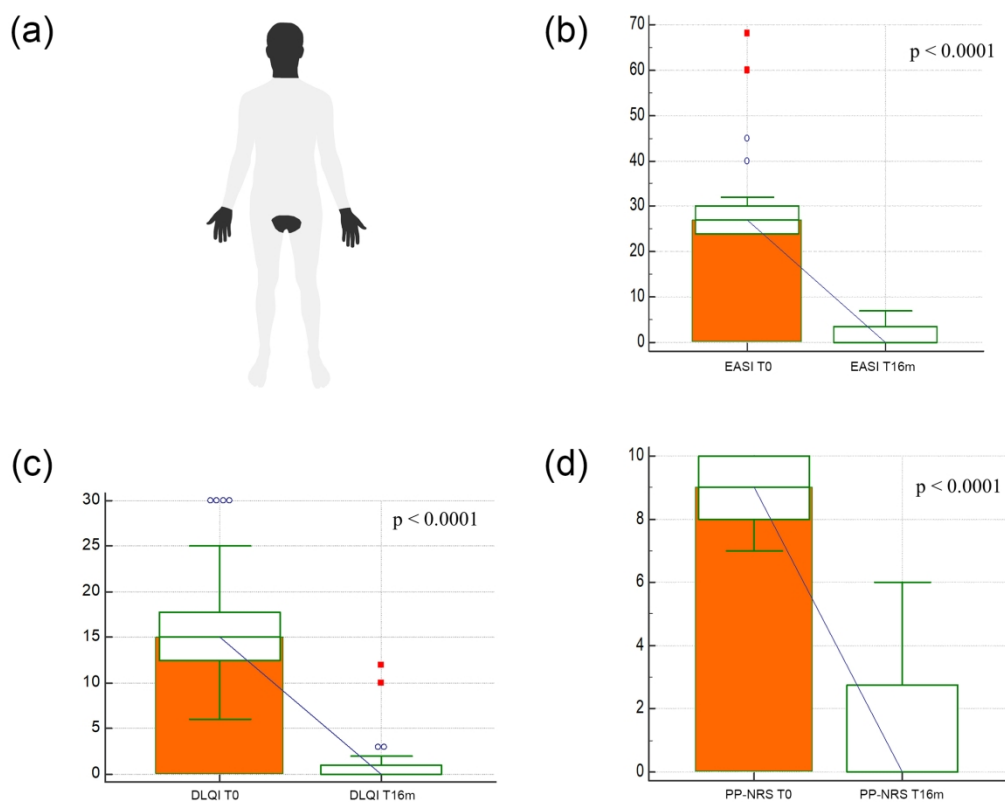
Regarding genital AD and their therapeutic response, very few data are currently available. In this view our study, although conducted on 146 patients, shows the high incidence of genital AD (18.7%) and the improvement of QoL in our patients after starting dupilumab therapy.

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Figure Legend

Figure 1 Genital atopic dermatitis (AD) was associated above all with involvement of upper limbs (hands) and head/neck region. While the box-plot graphs show how a treatment with dupilumab may improve EASI, DLQI and NRS in AD with genital involvement.



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