

Burden of Atopy: Atopic dermatitis documentation in a specialised asthma clinic

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Dear Editor,

Asthma and Atopic dermatitis are common, chronic, inflammatory conditions sharing common pathophysiological mechanisms, with well-established disease burden¹. Ireland has the fourth highest incidence of asthma in the world, with approximately 14.7% of the population affected². Atopic dermatitis affects approximately 10% of adults and its impact on quality of life has been well-established³. Previous research from Sweden⁴ denotes that in the general adult population about 2% have concomitant asthma, rhinitis, and atopic dermatitis but Irish research into concomitant burdensome disease is lacking.

Targeted biologic therapies have revolutionised the treatment of severe atopic dermatitis and asthma, including Dupilumab - licensed for adults and adolescents as add-on maintenance treatment for severe asthma and also patients with moderate-to-severe refractory atopic dermatitis. We aimed to document the prevalence of atopic dermatitis in an Irish-specialised Asthma clinic. We reviewed 71 clinic letters consecutively, without exclusion criteria, in a specialised Asthma clinic in an Irish Tertiary Centre over a 6-week period. Recorded variables included gender, documented presence of physician-determined atopic dermatitis, ACQ-7 Asthma Control Questionnaires, treatment, demographics, eosinophil count and whether individuals were known/referred to dermatology services. The cohort comprised 33 males and 38 females (age \bar{x} =50, range 21-84 years). From a respiratory perspective, 100% of clinic letters (n=71) recorded respiratory symptoms and physical examination findings. 94.4% (n=67) had documented ACQ-7 score within letters. 47.9% (n=34) referred to presence/absence of hay fever and/or sinusitis. 97.2% (n=69) referred to presence/absence of eosinophilia. 15.5% (n=11) letters in total described the presence or absence of atopic dermatitis, with 9.9% (n=7) of letters describing the presence of atopic dermatitis and 5.6% (n= 4) letters referring to the absence of atopic dermatitis as a relevant negative finding. 57.8% (n=41) of patients were on biologic therapy – including 15.5% (n=11) on Dupilumab. Of patients on established on Dupilumab therapy, 1 patient had documented atopic dermatitis pre-commencement. 1 patient was known to intra-hospital Dermatology services but there were no Dermatology referrals from clinic during this period.

Clinic letters documented respiratory symptoms to high-standard, with 100% documentation of respiratory symptoms/examination findings and the vast majority referring to ACQ-7 score and eosinophil count. In contrast, only 15.5% (n=11) referred to atopic dermatitis presence/absence, versus 47.9% documenting hay fever/sinusitis presence/absence. 9.9% of patients having atopic dermatitis is consistent with previous research on prevalence of atopic dermatitis in a general Irish population but given the overlapping pathophysiology between the 2 conditions was a lower prevalence in this cohort than we had anticipated. We believe this probably reflects a need for improved questioning on concomitant atopic dermatitis in asthma clinics.

Given the emergence of therapy with demonstrated clinical effectiveness in both conditions, targeting both conditions with 1 drug has obvious implications for patient care and potential cost-savings. The knowledge that a patient has both atopic dermatitis and severe asthma may ultimately influence the treating clinician's choice of directed therapy.

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Declaration of Conflict of Interest:

None declared.

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