

were administered. Topical steroid and Calamine lotion for reliving pruritus were also prescribed. The progression of the skin rashes was stopped on the third day of oral prednisolone therapy. Of note, the original pink-red plaques regressed to multiple dusky target lesions 4–6 days after the prednisolone therapy. The dose of prednisolone was tapered to 5 mg t.i.d. for the second week, and then 5 mg b.i.d. for the third week. The skin eruptions completely subsided without sequelae in 3 weeks. The clinical diagnosis of erythema multiforme was confirmed by skin biopsy that showed a moderate perivascular mononuclear cell dermal infiltrate. There was no recurrence of skin rash in 1-year follow-up thereafter.

Erythema multiforme is an acute, self-limited and sometimes recurring skin condition considered to be a hypersensitivity reaction associated with certain infections (e.g. herpes simplex virus, *Mycoplasma pneumoniae*, fungal infection, varicella zoster virus, hepatitis C, cytomegalovirus and human immunodeficiency virus etc.) and medications [e.g. barbiturates, hydantoins, nonsteroidal anti-inflammatory drugs, penicillins, phenothiazines, sulfonamides, candesartan cilexetil (Atacand), rofecoxib (Vioxx), metformin (Glucophage), adalimumab (Humira), bupropion (Wellbutrin) and ciprofloxacin (Cipro) etc.] (1, 2). However, it has never been associated with vancomycin. Vancomycin-induced hypersensitivity syndrome (i.e. drug rash with eosinophilia and systemic symptoms) with cutaneous manifestation mimicking erythema multiforme (3), 'erythema multiforme major' (now revised as Stevens-Johnson syndrome) (4, 5), and toxic epidermal necrolysis have been reported (5). To our best knowledge, however, isolated erythema multiforme to vancomycin without other systemic symptoms, as our case, has never been reported in the literatures. Clinicians should be alerted that vancomycin might induce severe delayed erythema multiforme, even after its administration for a long period up to 6 weeks. The time delay between vancomycin administration and clinical symptoms in this patient is really unusual, which may be related to

immune dysregulation in uremia and dialysis patients.

*Ming-Yu Lai, MD
Division of Nephrology
Taipei Veterans General Hospital
No. 201, Sec. 2, Shih-Pai Road
Taipei 11217
Taiwan
Tel: 886 2 28757501
Fax: 886 2 28219581
E-mail: mylai@vghtpe.gov.tw;
mylai1973@yahoo.com.tw

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The use of grass pollen-specific immunotherapy among grass pollen allergic rhinitis in the general population

A. Linneberg*, U. Bødtger

Key words: epidemiology; immunotherapy; pollens; rhinitis.

Allergen specific immunotherapy (SIT) is an old and well-documented

concept for the treatment of allergic rhinitis (1). Specific immunotherapy is an efficacious, disease-modifying, and cost-effective treatment of moderate to severe chronic intermittent allergic rhinitis (2, 3), and is often prescribed to allergic rhinitis by specialists in allergology. However, it is the general impression that only a limited number of allergic rhinitis in the general population receive this treatment, but data on this issue are sparse.

In 1998, a cross-sectional study of the general population (aged 15–41 years) of Copenhagen, the Capital of Denmark, was carried out. Methods have previously been described in more detail (4). Participants completed questionnaires on symptoms of allergic respiratory disease, medical consultations, and the use of medications for the nose and eyes within the last 12 months. Questions on symptoms have previously been validated against sensitization to relevant inhalant allergens (5, 6). Further, the participants were asked whether they had ever received immunotherapy (or desensitization) and if confirmative the type of allergen was specified. Only subcutaneously administered SIT was available on the Danish market at the time of, and prior to, the study. The prevalence of grass pollen allergic rhinitis (relevant rhinitis symptoms and a positive skin prick test against grass pollen) was 13.1% (63 of 481). Grass pollen allergy was thus the most common type of allergy in this population (4). A total of 76.2% (48 of 63) of grass pollen allergic rhinitis reported that they had used medications for symptoms from the nose or eyes within the last 12 months, while 6.3% (four of 63) of grass pollen allergic rhinitis had ever received grass pollen SIT (Fig. 1). In addition, three grass pollen allergic rhinitis had ever received SIT against allergens other than grass pollen. Only 3.2% (two of 63) had consulted a specialist within the last 12 months due to allergic symptoms, while 20.6% (13 of 63) had consulted their general practitioner within the last 12 months due to allergic symptoms (Fig. 2).

Use of SIT in the general population

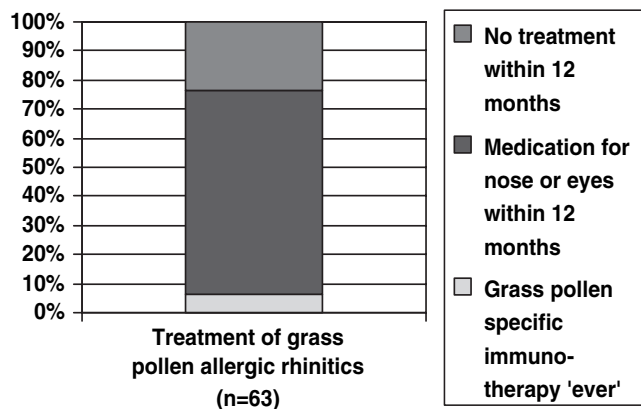


Figure 1. Treatment of grass pollen allergic rhinitis in an adult Danish population.

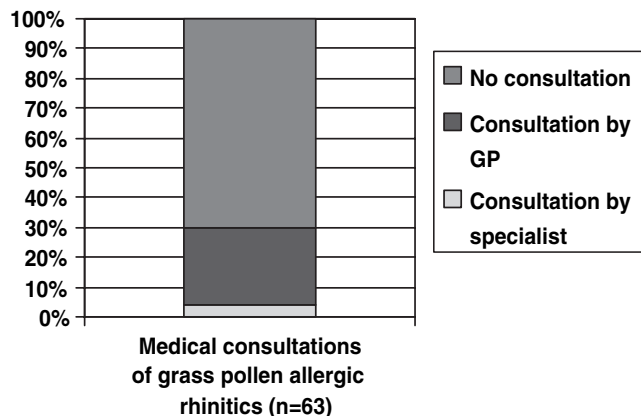


Figure 2. Medical consultations for allergic conditions within last 12 months among grass pollen allergic rhinitis ($n = 63$) in an adult general population in Denmark.

In conclusion, in this general population with a high prevalence of grass pollen allergic rhinitis, a relatively low proportion (6%) of grass pollen allergic rhinitis had ever received grass pollen SIT. This, may reflect poor accessibility of SIT in the Danish healthcare system due to the fact that very few Danish physicians are specialized in allergology. In the present population, only two allergic rhinitis had consulted a spe-

cialist within the last 12 months. Another explanation may be that relatively few patients present with moderate to severe symptoms or that few allergic rhinitis are willing to commit themselves to a full course of SIT. Approximately one-fourth of grass pollen rhinitis reported that they had not used any medication for their allergic condition within the last 12 months.

*Research Center for Prevention and Health, Glostrup University Hospital, The Capital Region of Denmark, 57 Ndr Ringvej Building 84/85, DK-2600 Glostrup, Denmark
Tel: + 45 43233260
Fax: + 45 43233977
E-mail: alli@glo.regionh.dk

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