Introduction

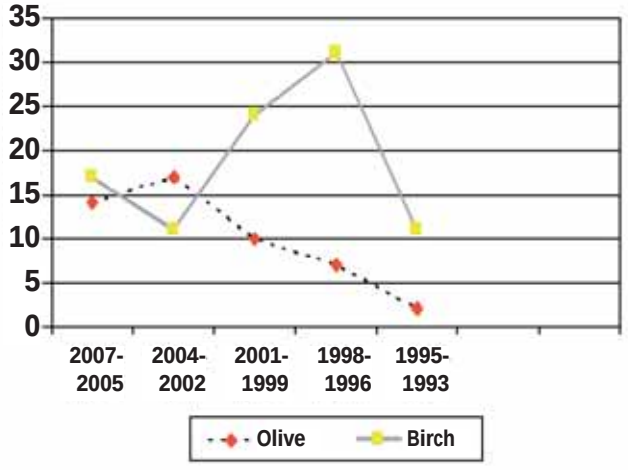
Twenty-five years ago, the major antigen of *Olea europaea* pollen was described [1]. Two years later, the first doctoral thesis on this subject was defended at the University of Seville [2] and, soon after that, Ole e 1 was isolated and immunochemically characterized for the first time [3,4].

Monoclonal antibodies and epitope mapping provided molecular evidence for cross-reactivity among the *Oleaceae*. The T and B cell epitopes [5-7] were also identified in the Ole e 1 molecule.

One of the main contributions to our knowledge of the major allergens was molecular cloning and expression in different vectors. Several other antigens from this pollen were cloned and expressed [8-12] and studies comparing both the recombinant form and the native allergen were performed [13]. To date, 11 olive pollen allergens have been described: Ole e 1 to Ole e 11, the latest one being Ole e 11 (R. Rodriguez, personal communication).

We now have several clinical studies on the immunological effects of olive immunotherapy and the allergenic characteristics and reactivity of different cultivars [14-16]. Analyses of the genetic restrictions in the response to olive pollen allergens [17,18] have shown some allergens to be associated with specific clinical phenotypes [19].

The cross-reactions between olive pollen allergens and some known panallergens have increased our knowledge of the clinical aspects of olive pollen allergy [20-22] and of the reactions to other members of the *Oleaceae* family [23].



Number of publications on basic research on birch pollen and olive pollen grouped every three years from 1993 to April 2007.

The description of a murine model for this allergy and the type of Th2 response are also important [24] and open up exciting possibilities for the treatment of allergic patients using hypoallergenic mutants [25].

Finally, we believe that olive pollen is a unique model of allergy sensitization that enables us to study the specific immunological responses of sensitized patients because the amount of inhaled pollen is extremely high in certain Mediterranean regions. The response is "different" because of the defense and tolerance mechanisms resulting from the high amounts of pollen that patients inhale (sometimes more than 5000 grains/m^3). For these reasons, there is increasing interest in olive pollen allergy as a unique model to explore the allergic response to high amounts of inhaled pollen. We compared the number of indexed studies on olive pollen research published from 1993 to mid-2007 with similar publications on birch pollen, the classic tree pollen from the north of Europe, over the same period (figure). The amount of published research on olive pollen has been increasing and is now similar to that on birch pollen.

We expect that the recent production of recombinant allergens in olive pollen will lead to an increase in the number of publications on olive allergy, as occurred with birch pollen allergy during the period 1996 to 1998 (Figure).

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