



# EFFICACY OF IMMUNOTHERAPY WITH *CUPRESSUS ARIZONICA* AND A MIXTURE OF POLLENS

Jonathan Kilimajer MD†, Vanessa Rodríguez MD†, Concha Barjau MD†, Pilar González MD and Javier Subiza MD†

† Subiza Asthma and Allergy Centre, Madrid, Spain



## INTRODUCTION

It is known that allergen immunotherapy treatment with a single allergen at high concentrations is effective in monosensitized patients. The opposite type of immunotherapy in polysensitized patients, using diluted mixtures of different pollen sources, is not. This raises an important problem for choosing the right type of immunotherapy in the centre and south of Spain, where more than 80% of patients are polysensitized.

## METHODS

Fifteen patients were selected at random and retrospectively treated with a mixture of grass and/or olive pollen and *Cupressus arizonica* immunotherapy, at high concentrations. Seven men and eight women between the ages of 13 and 62, who had completed at least two years of immunotherapy with Clustoid® Forte or Clustoid® Max, were included in the study. Their evolution was measured using symptom and medication scores for rhinoconjunctivitis normalized with pollen levels. These patients had correctly completed our electronic symptoms notebook application (Alercon) installed on their smartphones, during the years of immunotherapy.

Table 1. Results: individual data

Patient	Age	Sex	Clustoid Composition	Treatment years	Improvement since Treatment (%)
1	41	women	<i>Cupr. Arizona</i>	3	59%
2	18	man	<i>Cupr. Arizona - grass pollen</i>	4	79%
3	28	man	<i>Cupr. Arizona</i>	3	-121%
4	18	woman	<i>Cupr. Arizona - grass pollen</i>	3	-24%
5	26	man	<i>Cupr. Arizona - grass pollen</i>	4	100%
6	46	woman	<i>Cupr. Arizona</i>	5	95%
7	46	woman	<i>Cupr. Arizona</i>	7	100%
8	52	man	<i>Cupr. Arizona - grass pollen</i>	3	100%
9	42	man	<i>Cupr. Arizona - grass pollen</i>	7	100%
10	52	woman	<i>Cupr. Arizona - grass pollen</i>	3	100%
11	31	man	<i>Cupr. Arizona - grass pollen</i>	5	78%
12	46	woman	<i>Cupr. Arizona</i>	2	-220%
13	13	man	<i>Cupr. Arizona - grass pollen - O. europea</i>	3	80%
14	41	woman	<i>Cupr. Arizona - grass pollen</i>	3	95%
15	62	woman	<i>Cupr. Arizona</i>	3	100%



## RESULTS

We aimed for a 100% clinical improvement in 100% of patients (absence of symptoms) and we achieved the following: 100% in 6 patients (40% of patients), 75-99% in 5 patients (33.3% of patients), and 50-74% in one patient. No improvement was seen in 3 patients. This data is far from a placebo effect. The improvements were compared with the start of treatment during the first year of immunotherapy. No adverse reactions were observed.

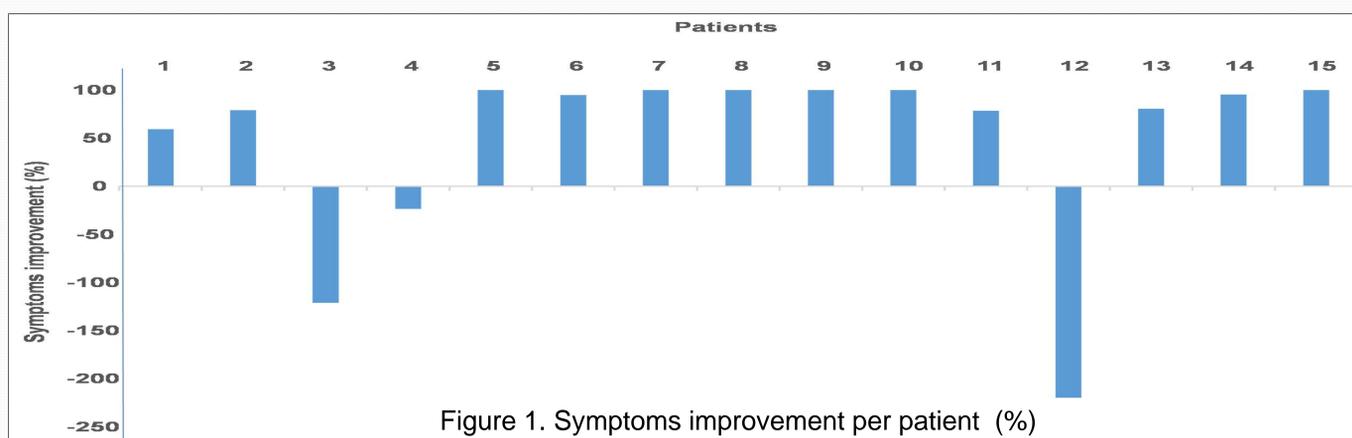


Figure 1. Symptoms improvement per patient (%)

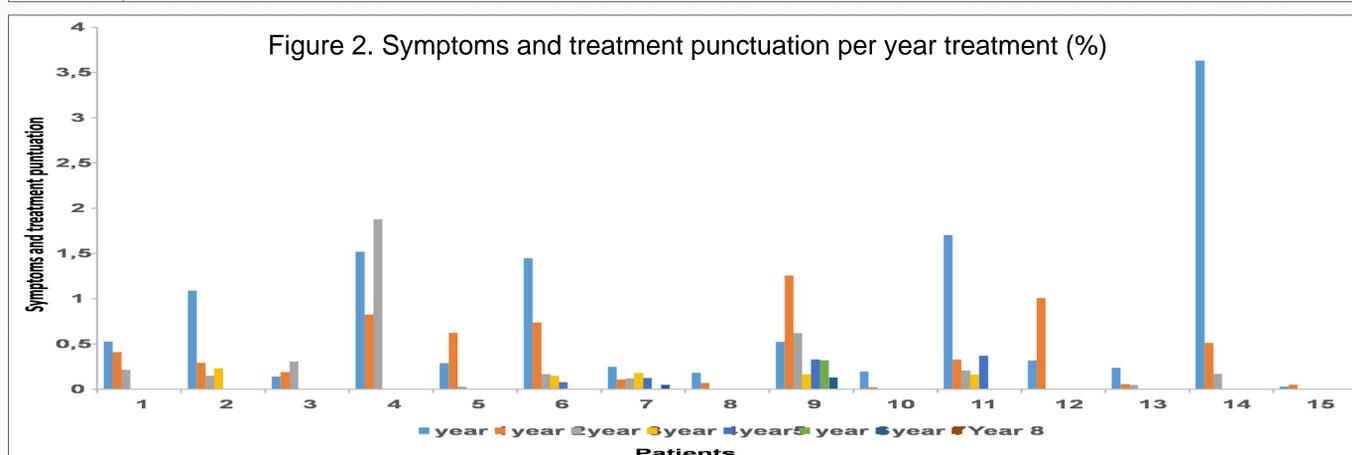


Figure 2. Symptoms and treatment punctuation per year treatment (%)

## CONCLUSION

In relation to the symptoms and treatment scores, *Cupressus arizonica* immunotherapy with a mixture of different pollens, proved to be effective and safe in the majority of patients.