

EAACI Clinical Fellowship Report

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Title: Immunotherapy In Children For The Treatment Of Respiratory And Food Allergies

Time frame of fellowship project: 01/08/2019-31/10/2019

Home institution: Department of Surgical Sciences, Dentistry, Gynecology and Pediatrics, Pediatric Clinic, University of Verona, Italy

Host Institution: Servicio de Alergia, Hospital General Universitario Gregorio Marañón, Madrid, Spain

When I wrote my letter of motivation for my 3-month clinical fellowship, I expressed the aim to study in deep the issue of immunotherapy in children for the treatment of respiratory and food allergies. At the end of the time of the clinical fellowship project, I can express full satisfaction for what I have experienced.

During all my stay, I have been involved actively in the weekly evaluation of patients undergoing oral immunotherapy for food allergy and allergen specific immunotherapy.

About the oral immunotherapy (OIT) for food allergies, I learned how to apply this type of treatment in children affected by persistent egg or milk allergy. I have studied in deep EAACI guidelines for OIT and learnt above all its practice aspects. In fact, the time required to acquire food tolerance is not the same for all patients; during OIT, it is mandatory to evaluate patients weekly, gradually increasing the dosis of the food involved and respecting the time which his/her immune system requires to acquire the tolerance. Following this way of acting, almost all patients have successfully completed OIT, obtaining the tolerance to the food involved. On the other hand, a small percentage of patients has failed OIT: in these cases, omalizumab may play a role in the near future.

About the immunotherapy for the treatment of respiratory allergy (allergen immunotherapy - AIT), I have studied in deep EAACI guidelines for AIT and learned how it represents the only tool to change the history of asthma and allergic rhinitis in children who don't respond adequately to anti-allergic drugs. Both subcutaneous and sublingual allergen immunotherapy are practiced at the Allergy Service in Gregorio Marañon Hospital. Here it is known a preference for subcutaneous immunotherapy by parents and specialists in allergy. Specifically, parents appreciate the easy way of administration, while specialists in allergy evaluate the good results reported in terms of compliance positively. Comparing the diary of children's symptoms before and after the beginning of immunotherapy, the improvement

of their symptoms and quality of life is more than obvious. Additionally, I found it to be absolutely safe; specifically, I have not observed adverse events related to AIT during my stay.

During my 3-month clinical fellowship, I have also attended consultations of patients referred by general practitioners or other specialists for investigation of possible allergic diseases. I have studied in deep how making diagnosis of allergy, through the performance of allergologic tests including skin prick tests, prick to prick and component-resolved diagnostic. I have acquired experience in oral food challenge, learning how making it, recognising symptoms of allergic reaction and managing them through the use of antihistamines, steroids and epinephrine. In addition, I have clinically followed children with severe asthma on omalizumab therapy.

Additionally, I took part in a lot of seminar on pediatric allergy and asthma and attended both a Spanish Congress (Aprendemos junto al residente. Jornadas de Formación en Alergología, Madrid, 27-28 September 2019) and PAAM (Pediatric Allergy and Asthma Meeting) congress in Florence. Starting from the clinical experience which I have acquired during my clinical fellowship, here I have presented a poster about the management of IgE mediated allergy to fish and the possibility to reintroduce the canned tuna in the diet of the children affected by this type of allergy. Anyway, I am working for a future publication of this research work.

I have come to the moment of thanks. I would like sincerely to thank Dr Alberto Alvarez-Perea and his colleagues for the valuable guidance, willingness and patience to contribute to my training in Pediatric Allergy in these three months. Moreover, I would like to thank EAACI for choosing me to be the winner of this clinical fellowship. It was a great and memorable experience, that have changed my approach in routinely medical care and opened my horizons. Finally, a last personal consideration about this opportunity which EAACI have given me. It is true that, at the beginning of this route, there was some hardship linked to both foreign language and different approach in routinely medical care. At the end of this experience, I can affirm that it's totally worth it. Moreover, and not less important, I have learned Spanish and I think that this competence will surely be useful for the continuation of my scientific career. I can only advise EAACI Junior Members to live this experience as soon as they have the chance.

Madrid, 31/10/2019

Luca Pecoraro

