

000101 | Aerobiological study in Lima, Perú, *Tipuana-tipu*, perhaps a new allergen?

O. Calderon¹; J. Subiza²

¹CLINICA SANNA el GOLF, Lima, Peru; ²Clinic Doctor Subiza S. A., Madrid, Spain

*Presenting author: O. Calderon

Background: Knowledge about local airborne allergens in any geographical area is essential for effective diagnosis and treatment of allergic diseases. *Tipuana tipu*, tree of the Fabaceae family, native from South America, it is present in the main avenues of metropolitan Lima and in some parks of the city.

Objective: Our objective was to report the *Tipuana tipu* pollen how a new allergen capable of triggering allergic symptoms.

Method: The pollen counts were made according to standardized technique with a Burkard seven days following the European Aerobiology Society's Network Group recommendations. The trap was installed on the roof of Clínica SANNA el GOLF, San Isidro, which is 20m high, in the west-south of the Lima urban area. The sampling period was performed from September 2020 to October 2021. Collection of *Tipuana tipu* pollens and Preparation of *Tipuana tipu* pollen extracts 1:20 w/v was done using a previously described method. We carried out systematic skin-prick testing with *Tipuana tipu* pollen extract and other aeroallergens (mites, molds, cat and dog dander, cockroaches, grass and weed pollen), on 80 patients (18–50 years) seen in our allergy center suffering from November to January rhinitis and/or conjunctivitis symptoms. The majority living near avenues and large green areas, where *Tipuana* trees grew.

Results: We found a total of 952 grains/m³ of *Tipuana tipu* pollen between November 2020 to January 2021, with the maximum concentration of 37 grains/m³ on December 10th. We also found other airborne pollen Types: Poaceae, Myrtaceae, Compositae and Betulaceae. 14/80 patients (17.5%) show positive skin prick test only

to *Tipuana tipu* extract. Most of the patients with positive tests to *Tipuana* extract presented symptoms of rhinoconjunctivitis during the *Tipuana* pollination period.

Conclusion: The west-south population of Lima urban city is exposed to *Tipuana tipu* pollen. We do not found previous publications about *Tipuana tipu* allergy. Almost 18% of the patients tested in our sample were mono-sensitized to this pollen. The results of this study should be compared with data from the forthcoming years, to identify seasonal and annual fluctuations, extend the traps to other locations in Lima, and of course try to standardize and improve the



Tipuana tipu pollen extract.

Conflicts of Interest: The authors did not specify any links of interest.