

ADVERSE REACTIONS IN IMMUNOTHERAPY

JOSE CARLOS PERINI MD ASBAI BRAZIL – WAO WISC 2014 - RIO

ADVERSE REACTIONS

According to WHO Definitions, **Adverse Reactions(AR)** are: 'A response to a drug which is noxious and unintended, and which occurs at doses normally used in man for the prophylaxis, diagnosis, or therapy of disease or for the modifications of physiological function' . *Allergen immunotherapy(AI)* is defined as the repeated administration of specific allergens to patients with IgE-mediated conditions for the purpose of providing protection against the allergic symptoms and inflammatory reactions associated with natural exposure to these allergens

AR in immunotherapy go from Local Reactions to Generalized Pruritus, Rhinitis, Angioedema , Itchy throat, Cough, Conjunctival symptoms, Nausea, Asthma, Abdominal cramps, Uterine cramps, Laryngeal,uvéal and tongue edema, Respiratory failure, Hypotension and Death, not necessarily in this order.

STATISTICS

74 deaths due to immunotherapy were reported from 1973 to 2001 in USA. From 2001 to 2007 the number of deaths fell to only 6 cases reported and no other case were reported from 2007 on. The reasons for the decrease probably are: better quality and standardized antigens, awareness of the risks thus increased prophylactic measures have been taken, better trained medical personnel, guidelines for the management of anaphylaxis

Other 273 near fatal AR were reported to the AAAAI from 1990 to 2001. This makes up to an average of 5,4 AR to 1000 000 injections, which makes Immunotherapy a very safe procedure, specially under nowadays guidelines.

WHY ADVERSE REACTIONS OCCUR?

The main causes of these AR are: Severe asthma, specially with FEV1 <70%, B blockers and ECA inhibitors ,Pollen season ,Route of delivery (SCIT more than SLIT), Patients sensibility to the allergen , Dose of the allergen , Multiple antigens, New vial , Rush and cluster immunotherapy .

PROPHYLAXIS

Measures to avoid AR to Immunotherapy are: better assessment of patients health so as to identify risk factors such as asthma and heart diseases; better allergic diagnostic , use of standardized antigens, prophylaxis measures such as use of antihistaminic and leucotriens inhibitor drugs, local life support resources , well trained professional on Immunotherapy guidelines and anaphylactic rescue procedures

THE FUTURE

Increased safety and/or efficacy with currently available extracts attained by delayed absorption of the extracts. reduced levels of IgE with the use of omalizumab . Safe alternative routes of delivery such as oral or nasal. Molecular allergy is expected to take the field to the next step

