Prespective Article

Production of Hypo-allergen Cows: A Contemporary Approach to Milk Allergies

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Abstract | There is a huge concern of milk allergies in human infants. Estimated data reveals that every third child out of one hundred is suffering from milk allergies during first year of their life. Symptoms related to milk allergies may include respiratory distress, atopic dermatitis and many others that are still under investigation. Several hypothesis have been presented to account for the possible Immune mediated mechanisms involved in the development of milk allergies. It is imperative to completely comprehend and work for probable areas for prevention of developing milk allergies in infants. Different diagnostic tests are used to determine the milk allergies, most significant being, the Double-blind placebo-controlled food challenge (DBPCFC), the Skin Prick Test (SPT), Atopy Patch Test (APT) and Measurement of specific Ig-E allergens in cow's milk. To date, there is no validated and specific treatment of milk allergies. The best way to tackle this illness could be development of ways to prevent the chances of occurrence of milk allergies. One of them, which is the off shoot of health biotechnology is the production of Hypo-allergen dairy cows. The milk of such cowhas a minimal to negligible amount of Beta Lacto globulins making it safe to be used for infants with suspected milk allergy. The hypo-allergen cows are an important development in the field of medical biotechnology. Further improvements are needed which would aid in overcoming epigenetic defects linked to production of dairy cows. The efficient commercialization of such model approaches would lead to the positive amplification of healthcare biotechnology outcomes.

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