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**Title:** Changes in skin prick test (SPT) from the age of 1 to 6 years (yrs) and relationship to specific IgE and atopic dermatitis: The French arm of PASTURE European study

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**Body:** The "PASTURE" study (Protection against Allergy: STUdy of Rural Environment) examines the influence of exposure to a dairy-farm environment on the occurrence of allergy in a cohort of European children from the 3<sup>rd</sup> trimester of pregnancy to 10-yrs. The aim of this study was to analyze the course of SPTs to aero- and food allergens from the age of 1 to 6 yrs in the french children of PASTURE, whether they live or not on a farm and to evaluate their relationship to specific IgE and atopic dermatitis (AD). Two hundred and four french children, which 95 of the farmer group, were included. SPTs, AD assessment and specific IgE assays were performed at 1, 4.5 and 6 yrs. One hundred and forty children participated in all three visits. The prevalence of positive SPTs increased with age (9.5% at 1 yr, 14.2% at 4.5 yrs, 22.6% à 6 yrs). It was lower in the farmer group, regardless of age and category of allergens considered (statistically significant only for seasonal allergens at 4.5 yrs). Positive SPTs were transient at 1 yr whereas they were persistent between 4.5 and 6 yrs. The prevalence of AD was not significantly different in the two groups and decreased with age. Positive SPTs at 1 yr were predictive of the occurrence of AD during the follow-up. The correlation between SPTs and specific IgE was poor for an IgE cut-off at 0.35UI/mL but increased with age and with higher cut-off. In conclusion, our study showed that skin reactivity (1) increased with age, (2) was lower in the farmer group, (3) at 1 yr was transient but predictive of the occurrence of AD. Correlation between SPTs and specific IgE was poor, especially at one yr.