

# [The effect of DPT and BCG vaccinations on atopic disorders].

[Article in Japanese]

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## Abstract

### *METHODS:*

To examine the relationship between DPT and BCG vaccinations and development of atopic diseases, we studied on 143 children resident of the island of Kodushima, Tokyo Japan. This study dealt with the entire population of 0-3 years old (82), all of the first graders of the elementary school (31) and all of the first graders of the junior high school (30) on the Island.

### *RESULTS:*

Among the 82 children aged 0-3, out of the 39 who received DPT vaccination, 10 (25.6%) suffered from bronchial asthma and this ratio was significantly higher than among the children who have not received DPT vaccination (1 in 43, 2.3%), ( $p < 0.01$ ). This was also the case concerning atopic dermatitis (7 in 39, 18.0% vs 1 in 43, 2.3%) ( $p < 0.05$ ). The same trend was also observed if three diseases (bronchial asthma, allergic rhinitis and atopic dermatitis) were combined (22 in 39, 56.4% vs 4 in 43, 9.3%) ( $p < 0.01$ ). As to the context of BCG vaccination, there were no cases with atopic disorders among the tuberculin positive first graders of the elementary school. No such relations, however, were observed among the first graders of the junior high school at all.

### *FINDINGS:*

From these results, we conclude that DPT vaccination has some effect in the promotion of atopic disorders, while successful BCG vaccination inhibits the development of atopic disorders, although the preventive effect of BCG may not last for many years.