**Comparison of skin Prick Test to Crude Shrimp Extract with Prick-to-prick Skin Test to Cooked Shrimp for Diagnosis of Shrimp Allergy in Children**

W. Pariyaprasert, N. Visitsunthorn, P. Vichyanond, O. Jirapongsananuruk; Siriraj Hospital, Mahidol University, Bangkok, THAILAND.

**RATIONALE:** Shrimp is a major cause of seafood sensitivity among Thai children. The aim of the study was to compare the diagnostic value of skin prick test (SPT) to crude shrimp extract with prick-to-prick skin test (PTP) to cooked shrimp using the outcome of oral food challenges as the gold standard.

**METHODS:** Children with history of shrimp allergy were subjected to SPT to crude shrimp extract and PTP to cooked shrimp. Seventy-seven children had positive tests to either SPT or PTP, these children then underwent open shrimp challenges. Mean wheal diameter (MWD) of SPT and PTP were calculated to give cut-off points yielding 95% predictive probability.

**RESULTS:** Fifty-six food challenges were positive (73%). Three had anaphylaxis (5%). MWD of SPT to crude shrimp extract were significantly different between positive and negative challenge groups (P = 0.041) whereas no difference was observed with PTP to cooked shrimp (P = 0.339). Patients with anaphylaxis had larger MWD to crude shrimp extract than those without (P= 0.008). The cut-off point providing 95% predictive probability of SPT to crude shrimp extract was ≥ 22 mm and PTP to cooked shrimp was ≥ 18 mm.

**CONCLUSIONS:** Our study suggests that SPT to crude shrimp extract is better than PTP to cooked shrimp in the evaluation of shrimp allergy in children.

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