ABSTRACT

Asthma is one of the most common chronic disease in childhood in developing as well as developed countries. The present study was carried out to assess the prevalence of childhood asthma among children aged 5 to 11 years and of some selected associated factors among them. In addition, the impact of childhood asthma on the children and their families were assessed using the Children's Health of Survey for Asthma (CHSA) questionnaire which was validated in the local setting.

The present study consist of four phases:

Phase I is a hospital based cross-sectional study for validation of the western developed CHSA questionnaire. Study population was 100 children who were diagnosed as having asthma. It was found that CHSA is a valid and reliable measure to assess the impact of the disease among the children with childhood asthma and their caregivers.

The Phase 2 of the study was the community based cross-sectional study to assess the prevalence of childhood asthma and the factors associated with the childhood asthma among 1380, 5 – 11 years old children residing in the CMC area.

The lifetime prevalence of asthma (ever wheezing) was 22.4 %, the prevalence of wheezing during past twelve months (period prevalence) was 12.8 %, child ever had asthma was 7.4 % and exercise induced asthma prevalence was 7.0%. Eighty percent of them were diagnosed as having asthma before the age of 4 years. No association was found between prevalence of asthma among girls & boys. Prevalence of asthma was more (17.6%) among Sinhalese children compared to other ethnic groups and this difference was significant ($p<0.001$).

Childhood asthma was statistically significantly associated with the following factors: Child's history of eczema ($p<0.05$), exclusive breast feeding beyond six months ($p<0.05$), location of the house near the dusty environment ($p<001$), main source of fuel as firewood ($p<0.05$), place of sleep($p<0.05$), the type of mattress cover ($p<0.001$), burning of mosquito coils ($p<0.05$), birth weight less than 2.5Kg ($p<0.001$), family history of asthma ($p<0.001$) and smoking habits of the father ($p<0.001$) when at home.

The other factors which were looked into were the age of starting of complementary feeding ($p>0.05$), age of starting of formula feeding ($p>0.05$) and a family history of allergy and these were not significant.

The commonest triggering factors of childhood asthma were frozen foods (68.4%), cold weather (46.3%), artificial food (43.3%), changing weather (32.2%) and for some selected foods it was 32.2%.

During the Phase 3 of the study, assessment of impact of childhood asthma on the child and the family were done using the CHSA questionnaire. It was found that symptom activity was significantly associated with four of the five domains: Physical health of the child ($p<0.001$), emotional health of the child ($p<0.001$), emotional health of the family ($p<0.001$) and the activities of the child ($p<0.001$).There was no association between symptom activity and the activity of the child mean score ($p>0.05$).

During the Phase 4 of the study, respirable dust levels of the 40 asthmatic children and 40 non asthmatic children were compared. There was no significant association between the respirable dust levels in the houses of the asthmatic asthmatic and non asthmatic children ($p>0.005$).