

ASTHMA IN SINGAPORE CHILDREN

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ABSTRACT

Over the last decade, admissions from respiratory infections have declined but there had been an increase in admissions from Bronchial Asthma in Singapore Government Hospitals. Better recognition by doctors and increased prevalence are important factors. However mortality had remained low. Like other mortality studies, underestimation of the severity of asthma and undertreatment are the major contributing factors to asthma deaths in Singapore children. Therefore, better public education and continuing education of medical personnel may help to reduce deaths from asthma in children and adolescents.

Keywords: Bronchial Asthma, children, prevalence, deaths

SINGAPORE MED J 1990; NO 31: 69-70

INTRODUCTION

Respiratory diseases are common ailments in childhood. With improved health standards in Singapore, admissions from acute respiratory infections such as pneumonia and acute bronchitis/bronchiolitis have declined or remained static (1). However, over the last decade, our impression was that admissions from Bronchial Asthma had increased. This was supported by reviews of our departmental statistics. The percentage of asthma admissions increased from 8.9% (1981) to 13.2% (1986). This trend was similarly observed in other Paediatric Departments (2).

What is the reason behind this increase in admissions from asthma? Is it due to the relaxation of admission policies as the wards are no longer burdened by large numbers of patients with infectious diseases? Is it due to better recognition of signs and symptoms? Is it that doctors are now more willing to make a diagnosis of asthma as the affluent parents are more willing to accept the diagnosis? These are certainly important factors.

But, is there an actual increase in the prevalence of asthma? An asthma survey by T M Chong in 1976 found the prevalence of asthma to be 3.9% (3). A similar survey by J Teo et al in 1987 of 13036 children and adolescents aged 6-19 years found a three-fold increase in prevalence of asthma (13.7%) (4).

Urbanisation brings along with it problems of air pollution, changing lifestyles and stress-related illnesses. The children are exposed to irritants in the atmosphere and are unknowingly taking in large amounts of "asthmatic triggers", such as preservatives and artificial colouring in all the 'so popular' fizzy drinks and canned food. Their "stressful" childhood from a high expectation-oriented education system adds on to the increased prevalence of asthma which is undoubtedly, a stress-related problem.

Fortunately, although asthma admissions have increased substantially, complications are uncommon and deaths from asthma in hospitals are rare. A look into national statistics however showed that a small but constant number of deaths from asthma occurred each year. From 1984 - 1986, there were 17 deaths from asthma in the age group 1-19 years (5).

A closer look into the circumstances surrounding these deaths yield some alarming findings. 41% of deaths occurred at home and 35% were brought in dead at the Emergency Department. 41% of the 17 deaths had very acute symptoms and succumbed within 24 hours. 47% however had ample time to seek appropriate medical help but had apparently failed to do so. Several of the deceased had symptoms suggestive of severe/chronic asthma but were only receiving intermittent treatment. Our findings were similar to that of other mortality studies where underestimation of the severity of illness and undertreatment are major contributing factors to asthma deaths.

How can we try to prevent this unnecessary wastage of young lives? We will need to improve the management of asthma, especially the severe/chronic asthmatics. Primary health care doctors should be aware of and be able to recognise atypical presentations such as chronic cough, nocturnal cough or exercise related symptoms and symptoms of hypersecretory asthma. When in doubt, specific laboratory tests such as Bronchial Provocative test or Bronchodilator response may be useful diagnostic tools. Problematic asthma should be recognised and referred to specialist clinics where appropriate prophylactic drugs such as inhaled steroids, sodium cromoglycate and ketotifen can be prescribed. In selected cases, acute life savers such as nebulised Beta agonist and oral steroids may be made available for emergency use at home. No effort should be spared to encourage normal physical activities (with prophylaxis if needed). A healthy and physically active child can handle an asthmatic attack much better than a child physically handicapped by asthma.

Doctors and parents should be able to recognise a potentially severe attack when the child showed poor response to his usual bronchodilator therapy, has low peak expiratory flow rates or is listless/irritable. These patients require urgent medical attention to prevent pro-

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gression to status asthmaticus.

With better public education and continuing education of medical personnel, we may hope to see less deaths from asthma in children and adolescents.

Note : This article is partly based on a paper "Bronchial Asthma in Singapore Children" presented at the 6th Asian Congress of Paediatrics, Tokyo, Japan 1988.

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