EDITORIAL

Significant Morbidity Associated with Asthma: A Need for Increased Doctor and Patient Education

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Asthma is a common chronic disease affecting 150 million people worldwide. Poorly controlled asthma exacts a high cost from both patients and society. The prevalence of asthma in Malaysia is estimated to be 4.2% based on findings of the Second National Health and Morbidity Survey conducted by the Ministry of Health, Malaysia in 1996[1]. The prevalence is estimated to be 4.5% in children aged up to 14 years and 4.1% in adults aged 15 years and above.

In this issue of the journal, Lee and Khoo[2] reported the results of their study on asthma control and follow-up characteristics of a group of 70 patients presenting with acute asthma to the emergency department of an urban teaching hospital. Almost three-quarters of the patients had poorly controlled asthma as defined by two or more emergency room visits for asthma over the previous 6-month period. A quarter of the patients had been hospitalised for acute asthma and slightly more than half made an average of 6 visits to the emergency room over the last 6 months for acute asthma. There was an under-use of inhaled corticosteroids in this group of patients with only 46% of them being on this form of preventive therapy. Morbidity and mortality related to asthma are associated with an over-reliance on bronchodilators and an under-use of inhaled steroids. Despite the fact that 57% of the poorly controlled group were on inhaled corticosteroids, the patients still experienced recurrent acute asthma episodes, raising the question on whether they were compliant with the prescribed treatment, whether the dose of steroids was sufficient and whether poor inhaler technique could have affected drug delivery to the lung. The patients' over-reliance on short-acting beta$_2$-agonists reflects poor patient education. A significant proportion of the patients studied did not have regular follow-up and therefore monitoring to ensure optimal treatment and compliance with prescribed medications was lacking. Dependence on emergency department treatment of acute asthma episodes may serve as a barrier to proper treatment and follow-up in primary care or specialist clinics to ensure an overall improved control of asthma[3,4]. Referral to an asthma specialist clinic after an acute asthma attack appears to reduce relapses of acute attack and improve asthma outcome[5]. This underscores the need to educate both doctors and patients that asthma is a disease with chronic airway inflammation which requires long-term preventive treatment and close follow-up and not a disease with acute episodes requiring only treatment at the emergency department.

In another study, Kanesalingam et al[6] reported in this issue of the journal, the results of their study on the admission criteria and the management of 62 adult patients with acute asthma during the first 24 hours of ward stay in a state hospital. Data for this study was obtained from the doctors' notes.

The documentation of acute asthma assessment was found to be lacking at both the emergency department and in the ward. Peak expiratory flow rate (PEFR) records were found in only 14.5% of the emergency department and 54.8% of the ward records. Records of the other aspects of the assessment of acute asthma severity which included the ability of the patient to speak in full sentences, respiratory rate, pulse rate and measurement of arterial blood gases (or pulse oximetry) were also found to be lacking which means either these were not assessed or they were assessed but not recorded. This practice is not in keeping with the recommendations of the Malaysian Thoracic Society guidelines on the management of asthma in adults[7]. The poor adherence to PEFR measurement in the emergency department is also a problem seen in other countries with established clinical practice guidelines on asthma management[8,9].

In both the Asthma Insights and Reality in Europe (AIRE)[10] study and the Asthma Insights and Reality Study in Asia Pacific (AIRIAP) (personal communication, GlaxoSmithKline Pharmaceutical (M) Sdn Bhd) significant proportions of patients in seven European countries and eight Asia Pacific countries, respectively had daytime and nighttime asthma symptoms and yet considered their asthma to be completely or well controlled. Ahmad et al[11] reported in this issue of the journal their findings on 93 asthma patients with age ranging from 12 to 76 years how well their asthma symptoms were controlled with prescribed treatment and their insights about the disease and its management. The majority of the patients were in step 2 (42%) and step 3 (36%) categories of the Global Initiative for Asthma (GINA) treatment guidelines[12]. Although the GINA goal is minimal or no symptoms of asthma, less than half of the asthma patients studied had minimal daytime or nocturnal symptoms. Although the GINA goals call for no limitation on physical activities and exercise, only less than half of the asthma patients had no restriction on their activities of daily living. Perhaps many asthma patients have the misconception that achieving complete symptom control and unrestrictive daily activities are not possible and therefore settle for a less-than-optimal functional state. It is paradoxical that at a time of rapidly rising health expectations, patients with asthma are tolerating symptoms of poor control. Only 14% of the patients owned peak flow meters and fewer among them used the meter or had knowledge of their best peak flow readings. Very few of the patients had heard about the asthma self-management plan and fewer still used it. The results of the study suggest that the current state of asthma in this group of patients falls far short of the goals for long-term asthma management established by GINA. The study documents a need for increased patient education about asthma and its management.

Traditionally, clinicians and researchers had used clinical or physiological data to routinely evaluate the clinical status of patients with asthma. Such measures are clearly useful in clinical settings but do not address the full impact of asthma on the physical, psychological, emotional, and social well being of these patients. Health-related quality of life refers to the functional effect of an illness and the consequent therapy on a patient, as perceived by the patient, and is a measure of the patients' evaluation of their own health compared with what they expect possible or ideal. Health-related quality-of-life measures are now routinely incorporated as outcomes in clinical trials of pharmacological treatment and patient education strategies, and have been promoted for use in clinical practice by health-care providers as part of the management of their patients with asthma. Self-administered questionnaires for evaluating the quality of life of patients with asthma may be generic such as the Medical Outcomes Study Short-Form 36-Item Health Survey (SF-36)[13] or disease-specific such as the Juniper Asthma Quality of Life Questionnaire (AQLQ)[14]. Patient scores from disease-specific questionnaires often correlate better with various physiological measures and clinical indicators of asthma status than generic instruments. However, generic quality of life questionnaires such as the SF-36 questionnaire have been extensively used by clinical researchers

in studies of patients with asthma and have been found to be of value[15,16,17]. An attractive feature of these questions is that they provide a measure - perceived days of poor quality of life - that is perhaps more intuitively appealing and easily interpretable than scores produced by other quality-of-life questionnaires[18]. However, the routine clinical use of quality of life instruments would be too tedious and time-consuming.

In this issue of the journal, Hooi[19] reported the results of her analysis of the data of 399 patients with asthma aged 18 to 79 years on follow-up in the chest clinic of a government hospital. This data set was part of a multicentre national study of the quality of life of asthma patients undertaken under the auspices of the Public Health Institute, Ministry of Health of Malaysia in 1999/2000. The majority of the patients had moderate (43.6%) or severe asthma (55.9%) according to the Malaysian Thoracic Society guidelines[7]. The severity of current respiratory symptoms such as cough, shortness of breath and chest tightness correlated closely with poor quality of life of the patients as assessed using the SF-36 quality of life questionnaire. However, specialist grading of asthma severity and PEFR readings did not affect the quality of life scores as much. Other studies have similarly found subjective measures of asthma severity to correlate better with measures of quality of life than objective measures of lung function with spirometry and PEFR[20,22,23,23]. Variability between individual perception of breathlessness is perhaps a more important determinant than airflow limitation as measured by lung function tests of the impact of asthma on patients' disability and subjective perception.

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