Asthma Revisited

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May 4th, 2010 has been celebrated as the “World Asthma day” and according to a report in the local media this disease has shown 10% increase in Asthma instance in the local population, especially children. It is therefore the right time to address this problem and create awareness among the local population. The report says that one child in every four suffers from this disease, which not only hampers their education potential but in some cases may even lead to death.

Asthma is believed to be a psychosomatic disease and is prevalent more in affluent countries, though by no mean, is a restricted problem. According to a WHO survey about 15-20 million people suffer with Asthma in the Indo Pakistan subcontinent only. In the U.S., Urban residents, Hispanic and African-American are affected more than the population as a whole.

It has been noted that there is a striking increase of asthma in populations migrating from rural environment to an urban one or third world country to westernized one. In a Survey in 2005 in U.S.A. asthma affected more than 22 million people including 6 million children. More boys have asthma than girls, but more women have it than men. Of all children, African-American and Latinos who live in cities are more at risk for developing asthma.

In England, an estimated over 260,000 people were diagnosis with asthma in 2005 and 32.6 million people were diagnosed with asthma related prescription.

Hippocrates, 450 BC recognized this disease as a medical condition and was the first to call the disease “asthma”. During 1930s to 1950, asthma was counted as one of the “holy seven” psychosomatic illness. Some also consider it as a psychological disease, with treatment often primarily involving psychoanalysis and other “talking cure”.

Guidelines for the diagnosis and management of Asthma has been reviewed recently by the National Panel on Asthma Education and Prevention Progress (NAEPP) of Western University of Health Sciences, College of Pharmacy Panona, California. It has been suggested that for the effective control of Asthma four components are vital and should be kept into account while dealing with Asthma patients.

1. **Assessment and Monitoring**

Assessment and monitoring includes assessment of patients current and future asthma risk, which means checking frequency of exacerbation of symptoms and assessing of current lung function, with an eye on future risk. The possible progressive loss of function and adverse side effect from current medication that may effect lung function, has to be monitored.

2. **Patient Education**

In treating chronic illness, the patients education is of paramount importance. It needs team work which may include the physician, nursing staff and pharmacist to educate the patient on disease itself as well as proper use of the medicine, specially inhaler use. A family support system for the continued proper management of the disease is crucial. The family members also need to be educated to help the patient according to the prescribed treatment regimen.

3. **Environmental Factor**

The control of environment factor that can effect management of the diseases is vital. This includes monitoring of patients-home and work environment
for possible exposure to allergens or irritants that can affect lung function, for example exposure to cigarette smoke or pollutants. Besides pollutant one should also take care of any such drug that might interact with asthma medication or impaire breathing. Asthma condition may be more difficult to manage in case of obese patients.

4. Medication
Medication management is an important component in treatment of asthma patients. This is accomplished by a stepwise approach to treatment. Patients are evaluated using testing such as spirometry, in some cases, oxygen levels are measured in the blood. Patients should be assessed to know how often breathing problem occurs, for e.g. more than twice a week during the day; more than twice a month during the night and so on. If this happen the patients is a candidate for long-term preventive treatment option.

The updated NAEPP guidelines are necessary because asthma remains poorly controlled in many patients. They address previously unrecognized or understated treatments factor such as the treatment of asthma in young children and infant and point out that reducing early childhood exposure to allergens and tobacco smoke may prevent the development of asthma later in life.

If followed correctly, then guidelines could help make significant progress in keeping asthma patients healthy and improving their overall quality of life.

If a patient's physician adheres to the new guidelines asthma patient will receive not only a more complete analysis, but will also receive more personalized treatment.

**Acute Attack**
In case of acute attack of asthma, breathing difficulties may even lead to unconsciousness. It is therefore necessary to use the following procedures.

A variety of different agents are available for the treatment of asthma. The line of action depending on the stage at which the patient presents and the type of asthma, which may be of three types, namely i) bronchial, ii) exercise-induced and by iii) office pollution. 12-15% Americans suffer from exercise-induced asthma some may have this problem without knowing it. It may also occur in people who have no history of asthma or allergy.

1. Oxygen to alleviate the hypoxia that result from extreme asthma attacks.
2. Nebulized salbutamol or terbutaline, often combined with ipratropium.
3. Systemic steroids, oral or intravenous (prednisone, prednisolone, methyl prednisolone dexamethasone or hydrocortisone).
4. Other bronchodilators that are occasionally effective when the usual drug fails.
   a. Intravenous salbutamol.
   b. Nonspecific beta-agonists, injected or inhaled (epinephrine, isethane, isoproterenol metaproterenol).
   c. Anticholinergics, IV or nebulized with systemic effects (glycopyrrolate, atropine, ipratropin). Methyloxantines, theophylline, aminophylline Magnesium sulphate, intravenous.