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CLINICAL ASSESSMENT OF PAEDIATRIC ASTHMA AND THEIR MEDICATION

M. Jawahar*[1], Khader Mohideen[2], N. Sriram[1], G. Venkataiah[1]

[1]Department of Pharmacy Practice, Smt Sarojini Ramulamma College of Pharmacy, Mahabubnagar, A.P., India.
[2] Department of Pharmacy Practice, Fathima College of Pharmacy, Kadayanallur, Tamilnadu, India.

ABSTRACT

The aim of the study is to assess pediatric asthma & their medication. This study was an observational & interventional study. Paediatric bronchial asthma is a common disease, which prevails among 4 to 5 % world population. A lot of medicine & novel drug delivery system has been discovered for the treatment of bronchial asthma. In the treatment of pediatric asthma, there should be better co-operation between physician, pharmacist & pediatric patient. The present study was aimed to evaluate the medication of paediatric asthma patient under different categories like intensity of illness, time of which attack is severe, age group analysis of paediatric patient & also which type of formulation is most suitable & convenient for the pediatric patient & the proper usage of inhalers etc.

Key words: Pediatric, Bronchial Asthma, Intervention.

INTRODUCTION

Asthma is defined as a disease caused by increased responsiveness of the trachea- Bronchial tree to various stimuli, which results in episodic narrowing & inflammation of the airways. Increased mucus production begins to block the passage of air into the lungs. Often asthma attacks are caused by "triggers" [1]. Common triggers include cold air, viruses, smoke, exercise, dust mites & inhaled irritants. Some inhaled irritants that cause asthma attacks are dander of furry pets, smoke, dust & chemicals. About 10% of asthmatic adults & some fewer children have Aspirin-Induced Asthma (AIA). In about 5 % of cases [2], aspirin is responsible for a syndrome that involves multiple attacks of asthma, sinusitis, nasal congestion & polyps in the nasal passages. NSAIDS like Ibuprofen (Advil), Naproxen (Aleve), Acetaminophen are also capable of inducing bronchial asthma [3].

Asthma can occur at any age, but most often develops in childhood. In Canada and US, 5 children die from asthma every week [4]. Condition that began as asthma can turn into an infection because mucus becomes trapped in the lungs. If you notice your child is having breathing difficulties observe him or her carefully [5]. Observe your child's activities near pets etc & report to your doctor.

Coughing, wheezing, shortness of breath, noisy breathing & chest congestion are all symptoms of childhood asthma. The study published in November 22, 2001 issue of the "The New England Journal of Medicine" [6] said that the influenza vaccine is safe to use for children & adults with asthma regardless of severity of their asthma [7].

"World Asthma Day"[7] is celebrated on 3rd may every year. The theme of world asthma day is "For The Equal Right to Breathe" [8].

METHODS

This study was carried out for a period of 6 months among inpatients and outpatients who were being treated under the medicine unit of Government Rajaji Hospitals, Madurai (1000 be hospital), Meenakshi mission

Corresponding Author :- **M. Jawahar** Email:- jawaharpharma82@gmail.com

hospital & Research centre lake area, Madurai (1000 bed hospital) & Ceyrac hospital, Mandelanagar, Madurai (300 bed hospital). This was a prospective, observational, & interventional study conducted on inpatients & outpatients undergoing treatment in medicine.

On conducting a survey, it was revealed that personal interview is the best way to extract the truth from the physician and pediatric patient. We opted it for our study. Initially we framed a questionnaire on inpatients & out pediatric patients of the following hospitals:

1. 35 pediatric bronchial asthmatic patients in Government Rajaji Hospitals, Madurai,
2. 40 pediatric bronchial asthmatic patients in Meenakshi Mission Hospitals & Research Centre, lake area, Madurai
3. 25 pediatric bronchial asthmatic patients in Ceyrac Hospital, Mandelanagar, Madurai.

The details were collected from their case sheet, laboratory investigation, physician, patient's relation & patient's history record according to the questionnaire which the pharmacist framed. From the collected details the results were summarized [9-12].

PATHOPHYSIOLOGY

Risk factors for asthma

Genetic Factors (Familial history, Atophy)

Environmental factors (Air pollution [10], Allergens, cigarette smoke, viral infection)

⇩

Induces mast cell degranulation by combining with IgE Antibody
Present on the surface of mast cell [11]

⇩

Stimulate mast cell degranulation

⇩

Release of inflammatory mediators like Histamine,
Prostaglandins, Leukotrienes etc [12]

⇩

Bronchial Inflammation

⇩

Bronchial Hyper responsiveness

⇩

Bronchial Contraction ⇨ Asthmatic symptoms [13-17]

⇧

Risk factors for exacerbation [14,18]

1) Respiratory infection
2) Exercise & hyperventilation
3) Weather changes
4) Foods(milk, eggs, nuts etc)
5) Drugs(NSAIDS)

CONCLUSION

From the above survey conducted among 100 pediatric bronchial asthmatic patients, it was found that among them 43 were female & 57 were male. Here males suffered a lot compared to females. Depending upon the age group the most susceptible cases were those between 3-6 years (33%).The priority is as follows below 3 years 28% followed by 6-9 years age group 22% & finally 9-12 years 17%.From this age group analysis it has been concluded that pediatrics with age between 3-6 years suffered a lot compared to others. Based on asthmatic patients parents educational status graduates were best informed of the effect of the ailment & their percentage was 24%, illiterates made up to about 9 % & hence counseling is in demand for this category. Thus from the above survey it was concluded that pediatric asthmatic patients whose patients are graduates have been recovered fast compared to others.

REFERENCES

1. Tripathi, Essentials of medical pharmacology, Fourth Edition, 227-232.
2. Harrisons, Principle of Internal Medicine, Fourteenth Edition, volume 2, 1419.
3. Handbook of Asthma for the Medical Profession, Second Edition, 97-102.
4. Anonymous 1. www.medics.com.
5. Anonymous 2. www.lungusa.com.
6. Anonymous 3. www.expand-a-lung.com.
7. Anonymous 4. www.allergy matters.com.
8. Anonymous 5. www.asthma 999.com.
9. Anonymous 6. www.bronchitis-medicals.com.
10. Anonymous 7. www.cure-your-asthma.com.
11. Anonymous 8. www.allergy control.com.
12. Anonymous 9. National Energy Supply (www.natallergy.com).
13. Anonymous 10. American Academy Of Allergy, Asthma and Immunology (www.allergy.mcg.edu).
14. Anonymous 11. The American Lung Association (www.lungusa.org).
15. Anonymous 12. Allergy & Asthma Network, Mothers Of Asthmatics (www.aanma.org).
16. Roger Walker & Clive Edwards, Clinical Pharmacy & Therapeutics, 327-330.
17. Anonymous 13. Davidson's Principle & Practice of Medicine, Eighteenth Edition, 328-335.
18. Anonymous 14. American Academy Of Allergy, Asthma & Immunology (www.aaaai.org).