FREQUENCY OF ASTHMA IN PREGNANT FEMALES PRESENTING IN OBSTETRICAL DEPARTMENT

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ABSTRACT:
Asthma is a long-term inflammatory disease of the airways of the lungs. It is characterized by variable and recurring symptoms, reversible airflow obstruction, and easily triggered bronchospasms. Symptoms include episodes of wheezing, coughing, chest tightness, and shortness of breath. This cross-sectional study was conducted among pregnant females presenting in obstetrical clinics. Name, maternal and gestational age, presence or absence of asthma and frequency of asthma were noted on a predefined proforma. All the data was entered and analyzed with SPSS Ver. 23.0. There were 130 patients included in this study. The mean maternal age of the patients was 27.35±1.23 years. The mean gestational age of the patients was 7.23±0.45 months. Out of 130 patients, fourteen patients presented with asthma i.e., occasional, or frequent attacks. Out of these 14, one had recurrent asthma and aggravated condition.

KEYWORDS: ASTHMA, PREGNANCY
INTRODUCTION:

Asthma is a long-term inflammatory disease of the airways of the lungs. It is characterized by variable and recurring symptoms, reversible airflow obstruction, and easily triggered bronchospasms. Symptoms include episodes of wheezing, coughing, chest tightness, and shortness of breath. These may occur a few times a day or a few times per week. Depending on the person, asthma symptoms may become worse at night or with exercise. Asthma is thought to be caused by a combination of genetic and environmental factors. Environmental factors include exposure to air pollution and allergens. Other potential triggers include medications such as aspirin and beta blockers. Diagnosis is usually based on the pattern of symptoms, response to therapy over time, and spirometry lung function testing. Asthma is classified according to the frequency of symptoms, forced expiratory volume in one second (FEV1), and peak expiratory flow rate. It may also be classified as atopic or non-atopic, where atopy refers to a predisposition toward developing a type 1 hypersensitivity reaction.

There is no cure for asthma. Symptoms can be prevented by avoiding triggers, such as allergens and irritants, and by the use of inhaled corticosteroids. Long-acting beta agonists (LABA) or antileukotriene agents may be used in addition to inhaled corticosteroids if asthma symptoms remain uncontrolled. Treatment of rapidly worsening symptoms is usually with an inhaled short-acting beta-2 agonist such as salbutamol and corticosteroids taken by mouth. In very severe cases, intravenous corticosteroids, magnesium sulfate, and hospitalization may be required. In 2015, 358 million people globally had asthma, up from 183 million in 1990. It caused about 397,100 deaths in 2015, most of which
occurred in the developing world. Asthma often begins in childhood, and the rates have increased significantly since the 1960s. Asthma was recognized as early as Ancient Egypt. The word "asthma" is from the Greek ἄσθμα, ásthma, which means "panting". Asthma is characterized by recurrent episodes of wheezing, shortness of breath, chest tightness, and coughing. Sputum may be produced from the lung by coughing but is often hard to bring up. During recovery from an asthma attack (exacerbation), it may appear pus-like due to high levels of white blood cells called eosinophils. Symptoms are usually worse at night and in the early morning or in response to exercise or cold air. Some people with asthma rarely experience symptoms, usually in response to triggers, whereas others may react frequently and readily and experience persistent symptoms (1-3). The objective of this study was to see the prevalence of asthma in pregnant females presenting in obstetrical departments of different hospitals.

MATERIAL OF METHODS:
This cross-sectional study was conducted among pregnant females presenting in obstetrical clinics. Name, maternal and gestational age, presence or absence of asthma and frequency of asthma were noted on a predefined proforma. All the data was entered and analyzed with SPSS Ver. 23.0. The quantitative variables were presented as mean and standard deviation. The qualitative variables were presented as frequency and percentages.

RESULTS:
There were 130 patients included in this study. The mean maternal age of the patients was 27.35±1.23 years. The mean gestational age of the patients was 7.23±0.45 months. Out of 130 patients, fourteen patients presented with asthma i.e., occasional, or frequent attacks. Out
of these 14, one had recurrent asthma and aggravated condition.

DISCUSSION:
Asthma is the result of chronic inflammation of the conducting zone of the airways (most especially the bronchi and bronchioles), which subsequently results in increased contractability of the surrounding smooth muscles. This among other factors leads to bouts of narrowing of the airway and the classic symptoms of wheezing. The narrowing is typically reversible with or without treatment. Occasionally the airways themselves change. Typical changes in the airways include an increase in eosinophils and thickening of the lamina reticularis. Chronically the airways' smooth muscle may increase in size along with an increase in the numbers of mucous glands. Other cell types involved include: T lymphocytes, macrophages, and neutrophils. There may also be involvement of other components of the immune system including: cytokines, chemokines, histamine, and leukotrienes among others.

Some individuals will have stable asthma for weeks or months and then suddenly develop an episode of acute asthma. Different individuals react to various factors in different ways. Most individuals can develop severe exacerbation from a number of triggering agents.

Home factors that can lead to exacerbation of asthma include dust, animal dander (especially cat and dog hair), cockroach allergens and mold. Perfumes are a common cause of acute attacks in women and children. Both viral and bacterial infections of the upper respiratory tract can worsen the disease.

Psychological stress may worsen symptoms – it is thought that stress alters the immune system and thus increases the airway inflammatory response to allergens and irritants. Asthma exacerbations in school-aged children peak in autumn, shortly after children return to school. This
might reflect a combination of factors, including poor treatment adherence, increased allergen and viral exposure, and altered immune tolerance. There is limited evidence to guide possible approaches to reducing autumn exacerbations, but while costly, seasonal omalizumab treatment from four to six weeks before school return may reduce autumn asthma exacerbations (4-6).

REFERENCES: