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Bronchial Asthma Of Childhood In Tripoli Medical Center, Libya.

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ABSTRACT:
Asthma varies considerably across the life course. Childhood asthma severity is associated with duration of asthma symptoms, medication use, lung function, low socioeconomic status, racial/ethnic minorities, and a neutrophilic phenotype. Adult onset disease is associated with more respiratory symptoms and asthma medication use despite higher prebronchodilator FEV1/FVC. There is less quiescent disease in adult onset asthma and it appears to be less stable than childhood-onset disease with more relapses and less remissions. Asthma in older children is characterised by a histopathology of a chronic inflammatory process in the conducting airways. Genetic predisposition, in combination with environmental factors, such as allergens and viral infections, may contribute to the development of asthma. In research which including 190 children from age 1 year to 15 years old who are asthmatic at our out patients department showed, there is 69% of asthmatic children with consanguinity compared with 31% with no consanguinity, while allergic rhinitis with 51% in consanguinity and 49% in No consanguinity. In consanguinity hospital admission include 64% and No consanguinity is 36%. Meanwhile in flu consanguinity is 85% and No consanguinity is 15%. Finally pollen consanguinity is 83% and No consanguinity is 13%.

Keywords: *Bronchial asthma, children, Tripoli Medical Center, Libya.*

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I. INTRODUCTION:

Asthma is a chronic disorder of the bronchial tree, characterized by completely or partially reversible airway obstruction, which may improve spontaneously or may subside only after specific therapy [(1)]. Airway hyperresponsiveness is defined as the narrowing of the airways as response to a variety of stimuli, such as allergens and nonspecific triggers and infections. Asthma is a chronic disorder of both children and adults [(2)], with 300 million individuals afflicted worldwide (Global Initiative for Asthma (GINA) guidelines [(3)]. Asthma is characterized by inflammation leading to bronchoconstriction, edema, and increased mucous production in the airways [(4)]. Interestingly, the disorder is more prevalent in boys in the first decade of life. However [(5)], after puberty and in the second decade of life, it appears that asthma is more prevalent in young women [(6)]. Asthma disproportionately affects minority and low-income children with African American and Hispanic children having the highest prevalence rates, morbidity and mortality due to asthma [(7)]. Asthma is considered a chronic disease of childhood however there are periods of time during which disease can go into remission or resolve altogether. Important risk factors for the development of childhood asthma have been identified [(8)]. The phenotypes of childhood asthma and varied presentations are best defined through the periods of the pediatric life course and are described herein [(9)].

Maternal tobacco smoking during pregnancy has been shown to increase the risk of childhood asthma [(10)]. Maternal diet in pregnancy has also been implicated as an asthma risk factor with reports of maternal diets higher in vitamin E, zinc, and polyunsaturated fatty acids as protective against the development of childhood asthma [(11)]. In contrast, high sugar intake in the maternal diet during pregnancy has been associated with increased risk of asthma in offspring [(12)]. Other maternal dietary factors have been studied but with less conclusive results including the intake of vitamin D, vitamin C, and a Mediterranean diet. Other perinatal risk factors for childhood asthma that have been reported are neonatal jaundice, maternal preeclampsia, and cesarean section delivery [(13)], all which have been associated with higher risk of childhood asthma development. Ultimately gene-environment interactions (the genetic-environmental axis) are critical for the development of asthma in a child [(14)].

II. METHODOLOGY:

Study Place:
This prospective study has done from the enrolled 190 children from age 1 year to 15 year old who diagnosed as bronchial asthma in the respiratory out-patients department at Tripoli Medical Center, Tripoli, Libya.

Study Period:
The study period was determined from January 2020 – October 2020, for 10 months preceded the data collection.

Sampling Procedure:
We attempted an extensive collection of survey results by different sources in which bronchial asthma among Indian children was reported, including meeting presentations and personal communications. Through an extensive website-scanned search in indexed literatures and study reports, we identified 15 epidemiological studies of the development of asthma in Libyan children from 300 potentially relevant articles. Reviews of citations and reference lists were performed to identify additional eligible studies. The search terms included bronchial asthma, Indian children, prevalence, asthmatic bronchitis, wheeze, wheezy bronchitis, and reactive airway disease. Where possible, sources were contacted for further information on survey data not readily available in the public domain. Manual searches were conducted from review articles and previous meta-analyses.

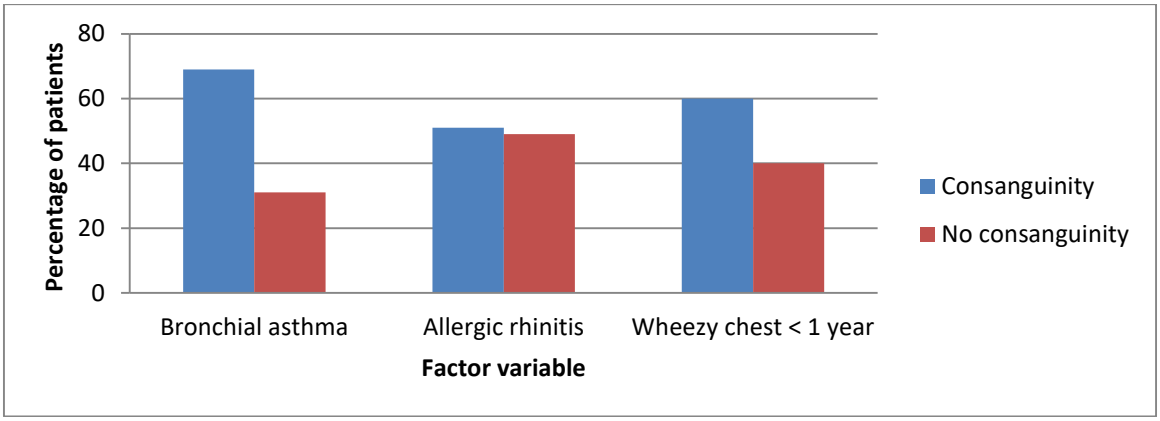
Statistical analysis:
The data were analyzed and processed using the SPSS 22.0 statistical package (IBM Corp.USA). The Independent Samples t-test was used for comparison of means. $P<0.05$ was considered to indicate a statistically significant difference.

III. RESULTS AND DISCUSSION:

From the research which including 190 children from age 1 year to 15 years old who are asthmatic at our out patients department showed, there is 69% of asthmatic children with consanguinity compared with 31% with no consanguinity. While allergic rhinitis with 51% in consanguinity and 49% in No consanguinity.

Table A1: Comparison of factor variable between the two groups

Factor Variable	Consanguinity	No Consanguinity
Bronchial asthma	69%	31%
Allergic rhinitis	51%	49%
Wheezy chest < 1year	60%	40%

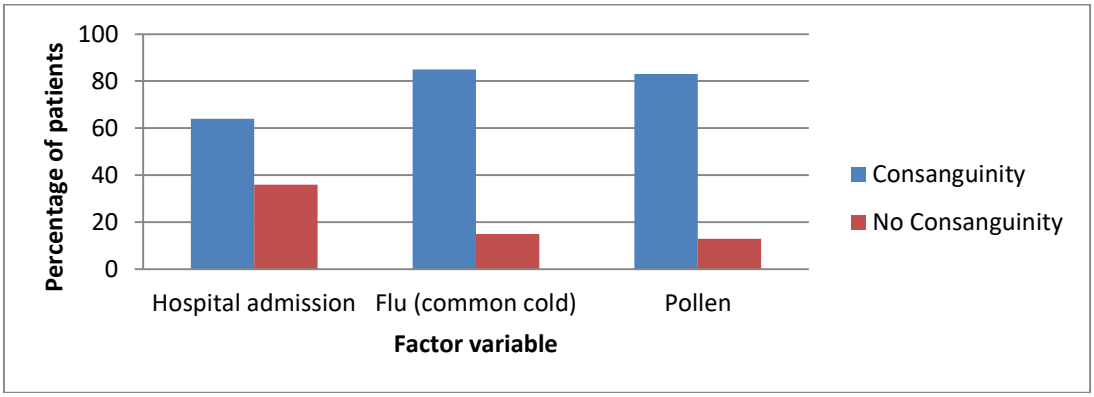


Graph A1: Comparison of factor variable between the two groups.

Table 2 is tabulated with factor variable like hospital admission, Flu (common cold) and Pollen. In consanguinity hospital admission include 64% and No consanguinity is 36%. Meanwhile in flu consanguinity is 85% and No consanguinity is 15%. Finally pollen consanguinity is 83% and No consanguinity is 13%.

Table A2: Comparison of factors responsible for Bronchial asthma between the two groups

Factor Variable	Consanguinity	No Consanguinity
Hospital admission	64%	36%
Flu (common cold)	85%	15%
Pollen	83%	13%



Graph A2: Comparison of factor responsible for Bronchial asthma between the two groups

IV. CONCLUSION:

Asthma is one of the most chronic disorders in children [(15)]. The prevalence of asthma has increased during the last decades but seems to have reached a plateau. The burden of asthma is considerable [(16)]. It influences quality of life, may prevent children from participating in sports and play, may hamper social contacts, and may cause school absence and hamper career development [(17, 18)]. Asthma begins in early life. Before the age of 6 many children wheeze, but only 40% of these early wheezers develop asthma. Due to lack of national representative data on the prevalence, risk factors, and prognosis of the disease, there is an urgent need for more public health research in this field of priority attention and direction.

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