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## UNANI PERSPECTIVE OF *ZEEQUN NAFAS* (BRONCHIAL ASTHMA) AND ITS MANAGEMENT IN UNANI SYSTEM OF MEDICINE: A SYSTEMIC REVIEW

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### Abstract:

*Zeequn Nafas* (Bronchial Asthma) is a major non-communicable disease affecting both children and adults, with high morbidity and relatively low mortality compared with other chronic diseases. Clinically it is characterized by recurrent episodes of dyspnoea, cough and wheezing particularly at night and in the early morning. Around 300 million people have asthma worldwide, and it is likely that by 2025 a further 100 million may be affected. The Indian Study on Epidemiology of Asthma, Respiratory Symptoms and Chronic Bronchitis in Adults (INSEARCH) estimated the national burden of asthma at 17.23 million with an overall prevalence of 2.05%. *Zeequn nafas* / *Dīq al-Nafas* (Bronchial Asthma) is mentioned in Unani classical literature under various names such as *dīq al nafas*, *Intisab al-Nafas*, *Rabw*, *Buhr* and *dama*.

**Objective:** The objective of this study is to review the ancient concept of *Zeequn nafas* mentioned in Unani system of medicine in the light of available new information and to appraise the effects of herbs to update the current knowledge regarding the use of herbs for management of *Zeequn nafas* (Bronchial asthma).

**Methodology:** Classical Unani literature and scientific databases like Google Scholars, Science Direct, Scopus and Web of Science etc were searched for available literature on *Zeequn nafas* (Bronchial asthma).

**Conclusion:** Present review has been studied on the principles of unani medicine which concludes that Unani drugs play vital role in the management of *Zeequn nafas* (Bronchial asthma).

**Key Words:** *Zeequn nafas*, Bronchial asthma, Unani medicine, *Rabw*, *Buhr*, *dama*.

## I. INTRODUCTION

Unani system of medicine originated in Greece, enriched by Arabs and Persians and now became an integral part of Alternative systems of medicine in Indian subcontinent. *Zeequn nafas* / *Ḍīq al-Nafas* (Bronchial Asthma) is mentioned in Unani classical literature under various names such as *Ḍīq al nafas*, *Intisab al Nafas*, *Rabw*, *Buhr* and *Dama*.<sup>1</sup> Asthma is a chronic inflammatory disease of the airway characterized by an increased responsiveness of tracheo-bronchial tree to a variety of stimuli resulting in widespread spasmodic narrowing of airways by a combination of bronchial muscle spasm, mucosal oedema and viscid bronchial secretions.<sup>2</sup> Clinically it is characterized by recurrent episodes of dyspnoea, cough and wheezing particularly at night and in the early morning. These episodes are associated with widespread but variable airflow obstruction within the lung that is often reversible, either spontaneously or with treatment.<sup>3</sup> These symptoms may be due to liberation of endogenous and intrinsic mediators like bradykinin, histamine, leukotrienes, prostaglandins, platelet activating factors, nitric oxide, chemokines and endothelin from mast cells during the allergic reactions and inflammation of the airways in the lungs. It is also known that asthma can be triggered by various infections, dust, cold or warm air, exercise, emotion, perfumes, chemicals, various foods and tobacco smoke.<sup>4</sup>

Asthma is a major non-communicable disease affecting both children and adults with high morbidity and relatively low mortality compared with other chronic diseases. For children, asthma may impair airway development and reduce maximally attained lung function, and these lung function deficits may persist in adulthood without additional progressive loss.<sup>5</sup> Adult asthma may accelerate lung function decline and increase the risk of fixed airflow obstruction, especially for smokers with asthma. People with asthma are more susceptible to infections and non-communicable chronic co-morbidities which are associated with worse asthma outcomes.<sup>5</sup>

The prevalence of asthma increased steadily over the latter part of last century, notably since the 1960s, a sharp increase in asthma prevalence was observed in a number of developed countries. Globally, asthma is ranked 16th among the leading causes of years lived with disability and 28th among the leading causes of burden of disease, as measured by disability-adjusted life years. Around 300 million people have asthma worldwide, and it is likely that by 2025 a further 100 million may be affected.<sup>5,6</sup>

The prevalence of asthma varies widely among countries/geographical regions and also within countries with different geographies and socioeconomic strata.<sup>7,8</sup> The Indian Study on Epidemiology of Asthma, Respiratory Symptoms and Chronic Bronchitis in Adults (INSEARCH) estimated the national burden of asthma at 17.23 million with an overall prevalence of 2.05%.<sup>9</sup> The recent Global Burden of Disease (GBD, 1990–2019) estimated the total burden of asthma in India as 34.3 million, accounting for 13.09% of the global burden. It also attributed that there were 13.2 per thousand deaths due to asthma in India.<sup>10</sup>

This literature review is aimed to explore and scrutinize the theory and management of *Zeequn nafas* in Unani medicine. A review from Unani texts, scientific databases (Google Scholars, Science Direct, Scopus and Web of Science etc) and grey literature including dissertations were retrieved to explore the role of Unani medicine in *Zeequn nafas*. The keywords included *Zeequn nafas*, management of *Zeequn nafas*, overview on *Zeequn nafas*, complementary and alternative medicine for *Zeequn nafas*, and Unani drugs useful in bronchial Asthma, systematic review on *Zeequn nafas*. All published and unpublished articles and textbooks were thoroughly assessed without any language or time restrictions. Some of the renowned Unani texts such as Ṭabarī Abū al- Ḥasan Raban's *Firdaws al-Ḥikma fi'l Ṭibb* (Paradise of Wisdom), Rāzī Abū Bakr Muḥammad ibn Zakariyyā *Kitāb al-Ḥāwī fi'l Ṭibb* (Continens Liber), Ibn Sīnā's *Al-Qānūn fi'l Ṭibb* (Canon of Medicine), Jurjānī Sayyid Ismā'īl's *Zakhīra Khwarizm Shāhī*, Majūsī Alī ibn Abbās's *Kitāb Kamil al-Sana'ah at-Ṭibbiyya* (Liber Regius/Complete Book of the Medical Art), *Tibb-e-Akbar* and *Aksīre-A'zam* were referred for concept and management of *Zeequn nafas*. The inclusion criteria were the above terms and full-length free accessible articles and abstracts were excluded.

## II. CONCEPT OF ZEEQUN NAFAS / DĪQ AL-NAFAS (BRONCHIAL ASTHMA) IN UNANI SYSTEM OF MEDICINE:

The term 'Zeequn nafas / Dīq al-Nafas' is composed of two words 'Zeeq' and 'Nafas' meaning 'narrowing' and 'breathing', respectively. In other words, it means difficulty in breathing. *Zeequn Nafas* is mentioned by the ancient physicians and philosophers like *Buqrat* (Hippocrates - 460 - 377 BC) and *Jalinus* (Galen – 129-210 AD).<sup>11</sup> *Buqrat* described this disease as breathlessness or panting. *Majusi* has also mentioned this disease in his book *Kamil al-Sana'ah* with reference to *Buqrat* and *Jalinus*. Unani scholars have mentioned this disease under different headings in their treatises, e.g., *Rabw*, *Buhar*, *Dama*, *Intasabun Nafas*, etc.<sup>12, 13, 14, 15, 16, 17</sup> *Zeequn Nafas* is a condition in which there is difficulty in breathing due to narrowing in air passages caused by accumulation of *Balgham Lazij* (viscous phlegm) in *Urooq-e- Khashna* (bronchioles).

It is also known as *Intisabun Nafas*, which is also a combination of two words 'Intisab' meaning 'to stand' and 'Nafas' meaning 'breath'. In this condition, some time the patient is unable to breathe or feels uneasy in sitting or laying position. So, he stands to take breath and feels comfortable.<sup>13</sup>

### Asbab (Etiology)

The basic cause of breathlessness in *Zeequn Nafas* is narrowing of *Urooq-e- Khashna* that may be due to various reasons, such as:<sup>12, 14, 16, 17, 18, 19</sup>

- i. Accumulation of *Balgham e ghaliz wa Lazij* (viscous phlegm) in Bronchial tree
- ii. *Insibab-e-Mawaad-e-Nazla* from head
- iii. *Imtila* (congestion) of *Urooq Khashna* (Bronchial tree)
- iv. *Imtila* (congestion) of *sharaein* (arteries)
- v. *Bukharat e Qalb* (Gaseous collection in heart putting pressure and leading to bronchial constriction)
- vi. *Yaboosat e riya* (dryness of lungs)
- vii. Warm (inflammation)
- viii. Abnormal shape of chest
- ix. *Qabz* (Constipation)
- x. Sometimes *Zeequn nafas* may be associated with other diseases like *Warme Hijabe hajiz*, *Warme Tihaal* (Splinitis), *Warme Jigar* (Hepatitis), *Humma-e-Diq* (Pulmonary Tuberculosis), *Zaatul Janab* (Pleurisy), *Zaatur Riya* (Pneumonia), *Faqrudam* (Anaemia), *Sual-e-Muzmin* (Chronic Bronchitis), *Warm-e-Gurda* (Nephritis). *Zeequn Nafas* due to these conditions is called *Zeequn Nafas Shirki*.<sup>13,17,19</sup>

### Mahiyatul Marz (Pathophysiology)

In Unani system of medicine, the basic cause of *Zeequn Nafas* is narrowing of *Urooq-e-Khashna* (Bronchioles) that may be due to *Waram* (Inflammation of air passages), *Insibab-e- Mawaad-e-Nazla* i.e., exudation and accumulation of *Balgham ghaliz wa Lazij* (viscid phlegm), *Imtila-e-Sadr* (Thoracic congestion), *bukharate Dukhaniyya* (air pollution) and *Yabusat* (dryness).<sup>17,20</sup>

### Types of Zeequn Nafas

A. According to **Rabban Tabari** (838–923 AD) types of *Zeequn Nafas* are as follows:<sup>18</sup>

1. *Zeequn Nafas Qasir* (caused by weakness of the respiratory muscles)
2. *Zeequn Nafas Mutatabae* (caused by inflammation of the diaphragm or excessive heat)
3. *Zeequn Nafas Mustaqeem* (caused by weakness or atony of the respiratory muscles)
4. *Zeequn Nafas Qawi* (caused by *Iltihab* and *Hararat*)
5. *Zeequn Nafas Zaeef* (caused by *Burudat*)
6. *Zeequn Nafas Aseer* (caused by accumulation of viscid secretions in the bronchial tree or gaseous collection in the chest putting pressure on the bronchial tree externally)

B. According to Hakim Ajmal Khan (1868-1927) the types of Zeequn Nafas are as follows:<sup>15</sup>

1. *Zeequn Nafas Yabis* (Bronchial asthma without expectoration caused due to spasm in the bronchial tree and the respiratory muscles)
2. *Zeequn-Nafas Martoob* (Bronchial asthma with expectoration that is caused due to spasm along with accumulations of phlegm in the bronchial tree)

C. According to Hakim Azam Khan (1815-1902 AD) the types of *Zeequn-Nafas* are as follows:<sup>14</sup>

1. *Rabw Nazli* (Allergic Asthma)
2. *Rabw Balghami* (Catarrhal Asthma)
3. *Rabw Dukhani* (Asthma due to pulmonary insufficiency)
4. *Rabw Istarkhai* (Asthma due to paresis of respiratory muscles)
5. *Rabw Yabis* (Asthma due to fibrosis of lungs)
6. *Rabw Barid* (Asthma due to cold)
7. *Rabw Warmi* (Potter's Asthma)
8. *Rabw Haar* (Hot type Asthma)

#### **Alaamaat (Symptoms and Signs)**

*Zeequn Nafas* is a chronic illness which is characterized by paroxysms of dyspnea with or without cough, cold and fever. Bouts of dyspnea and cough may remain from two to three hours to 24 hours. Symptoms may vary from mild, moderate to severe. The patient looks weak and restless; face becomes red, and pulse is *Azeem* (magnus), *Saree* (rapid) and *Layyin* (soft). Sometimes sweating, low body temperature and increased respiratory rate are observed.<sup>13, 14, 21</sup>

#### **Usool-e-Ilaj (Principles of Treatment)**<sup>12, 17, 22</sup>

The Principles of Treatment of *Zeequn Nafas* are as following.

- i. The patient should be kept in calm, clean and airy room free from air pollution during attack of the disease.
- ii. *Ta'deel-e-Mizaj* (correction of temperament).
- iii. *Tanqia-e- Mawad* (cleansing of viscous humour), *Mulattif*, *Munaffis Balgham* and *Mukhrije Balgham* drugs are recommended.
- iv. Sometimes *Muqi* (emetics) are recommended for evacuation of *Balgham*.
- v. *Mohallil-e-Auram* and *Daf-e-Tashannuj* are also recommended.
- vi. Treat the underlying cause in case of *Zeequn Nafas Shirki*.

#### **Tahaffuz (Precautions):**<sup>12, 17, 22</sup>

- i. Avoid constipation.
- ii. Avoid exposure to extreme heat and cold.
- iii. Avoid mental and physical stress.
- iv. Avoid use of citrus fruits, oily food and red chilies.
- v. Avoid use of *Mudirrat* (diuretics) because it may increase the consistency of *Balgham*.

### III. MODERN CONCEPT OF BRONCHIAL ASTHMA:

Asthma is a Greek word meaning short drawn breath, panting or labored breathing. Asthma is a chronic inflammatory disorder of the airways in which many cells and cellular elements play a role.<sup>3, 23, 24</sup> It is characterized by recurrent episodes of dyspnoea, cough and wheezing particularly at night and in the early morning. These episodes are associated with widespread but variable airflow obstruction within the lung that is often reversible, either spontaneously or with treatment.<sup>3</sup>

#### Etiopathogenesis:

Asthma comprises a range of heterogeneous phenotypes that differ in presentation, etiology and pathophysiology. The risk factors for each recognized phenotype of asthma include genetic, environmental and host factors. Although a family history of asthma is common, it is neither sufficient nor necessary for the development of asthma.

#### Asthma can be classified into two groups:

- i. Early onset Asthma (Extrinsic, Atopic, Allergic)
- ii. Late onset Asthma (Intrinsic, Non-Atopic, idiosyncratic)<sup>2</sup>

#### Early onset (Atopic) Asthma<sup>2, 25</sup>

- a) Early age of onset
- b) Atopic individuals
- c) External allergens have strong role
- d) Positive family history of allergic diseases like eczema, rhinitis
- e) Increased level of Ig-E in the serum
- f) Positive skin hypersensitivity test
- g) Positive response to provocation test

#### Late onset (Non-Atopic) Asthma<sup>2, 25</sup>

- a) Late age of onset
- b) Non-Atopic individuals
- c) External allergens have no role
- d) Negative family history of allergic diseases
- h) Normal level of Ig-E in the serum
- i) Negative skin hypersensitivity test
- j) Negative response to provocation test

#### Risk factors for asthma<sup>3</sup>

- **Allergies:** Asthma is usually a type of allergic reaction. People who have asthma often have other types of allergies, such as food or pollen.
- **Obesity:** It raises chances of developing asthma or making asthma symptoms worse.
- **Race or ethnicity:** African Americans and Puerto Ricans are at higher risk of asthma than people of other races or ethnicities. African American and Hispanic children are more likely than non-Hispanic white Americans to die from asthma-related causes.
- **Sex:** More boys than girls have asthma as children, while asthma is more common among women in teens and adults.
- **Occupational hazards:** Breathing in chemicals or industrial dusts in the workplace can raise risk of developing asthma.

## Asthma triggers<sup>3</sup>

Asthma triggers are things that set off or make asthma symptoms worse. Common triggers for asthma include:

- Indoor allergens such as dust, mites, mold and pet dander or fur
- Outdoor allergens such as pollens and mold
- Emotional stress such as intense anger, crying or laughing
- Infections such as coryza, influenza (flu), or COVID-19
- Certain medicines such as aspirin, which may cause serious breathing problems in people with severe asthma
- Poor air quality or very cold air

## Investigations:<sup>3</sup>

Following investigations are useful to diagnose Asthma and to assess the severity of the disease.

- i. Skin Prick test
- ii. Serum Ig E level
- iii. X- Ray chest
- iv. HRCT
- v. PFT (Spirometry)

## Treatment:

The currently available important anti-asthma drugs can be classified as relievers (required for quick relief, rescue drugs) and controllers (required for maintenance treatment).

### Relievers (Quick relief, Rescue)<sup>23, 24</sup>

- Rapid-acting drugs that relieve broncho-constriction
- Short-acting beta-2 agonists, anticholinergics, theophyllines, short-course oral steroids

### Controllers (Prophylactic, Preventive, Maintenance)<sup>23, 24</sup>

- Steroids, Long-acting beta-2 agonists, Sustained-release
- Taken daily to keep asthma under control
- Theophyllines, Leukotriene receptor antagonists, and Cromones

## Unani Treatment:

Unani physicians have described several single as well as compound drugs which have bronchodilator, anti-inflammatory, antihistaminic and expectorant properties.

### Single Unani drugs used in the treatment of Zeequn Nafas:

Asl-us-Soos (*Glycyrrhiza glabra* L.), Arusa (*Adhatoda vasica* L.), Filfil Daraaz (*Piper longum* L.), Kutki (*Picrorhiza kurroa* R.), Kalonji (*Nigella sativa* L.), Zufaa (*Hyssopus officinalis* L.), Irsa (*Iris ensata* T.), Sarson (*Brassica rapa* L.), Zanjabeel (*Zingiber officinale* R.), Heel Khurd (*Elettaria cardamomum* M.), Qaranfal (*Syzygium aromaticum* L.), Ajwaayin (*Trachyspermum ammi* L.), Ab'hal (*Juniperus communis* L.), Jauz al maasil (*Datura innoxia* M.), Maghz-e-Amaltas (*Cassia fistula* L.), Kataan (*Linum usitatissimum* L.), Zard Chob (*Curcuma longa* L.), Gilo (*Tinospora cordifolia* W.), Kataai khurd (*Solanum xanthocarpum* S. and W.)<sup>26, 27, 28</sup>

### Compound Unani formulations

Majoon Rahul Momineen, Safoof-e-Dama Haldiwala, Lauq-e-Zeequn nafas, Habb-e-Hindi Zeeqi, Kushta Abrak Siyah, Intesaabi, Sharbat-e-Zoofa Murakkab, Sikanjabin Unsuli, Lauq-e-Rabwi, Lauq-e-Sapistan, Lauq-e-Katan, Laooq-e-Nazli.<sup>29, 30, 31, 32, 33, 34</sup>

#### IV. SCIENTIFIC VERDICTS ON UNANI MEDICINE IN ASTHMA

1. In a clinical trial carried out by Shoab Ahmad et al, 25 patients of asthma (*Zeequn Nafas*) were enrolled in the study. The test drug containing Arusa (*Adhatoda vasica* Nees.), Zoofa (*Hyssopus officinalis* Linn.) and Asl-us-soos (*Glycyrrhiza glabra* Linn.) were given at 6 gram each 12 hourly in the form of decoction for a period of six weeks. Peak expiratory flow rate (PEFR) was recorded under dynamic condition before the start of the study and at an interval of 2 weeks for six weeks. The data were tabulated and statistically analyzed by applying paired t-test for the observations recorded during the study for evaluation of the significance of differences. The overall effect of the Unani test drug formulation was found quite encouraging in the treatment of *Zeequn Nafas*.<sup>35</sup>
2. Madheswari et al conducted a study aimed to formulate, standardize and evaluate the pharmacological activity of polyherbal capsule recommended as Anti-asthmatic agent. Selective combination of herbals in extract form which individually proven for their efficacy in asthmatic activity such as *Adhatoda vasica*, *Tylophora asthmatica*, *Piper longum*, *Solanum trilobatum* and *Alpinia galanga* were formulated as capsule. The polyherbal capsule formulation was subjected to in-vivo evaluation for its anti-asthmatic activity using histamine induced bronchospasm in guinea pigs. During acute toxicity study the polyherbal capsule was found to be safe up to 2000 mg/kg body weight. The polyherbal formulation was administered with a dose of 400 mg/kg showed that it was more significant than 200 mg/kg when compared with standard drug promethazine 300 mcg/kg. The Polyherbal formulation at a dose of 400 mg/kg showed maximum antiasthmatic activity.<sup>36</sup>
3. The effects of UNIM-352, a poly herbal Unani preparation, which was used for bronchial asthma in traditional system of medicine, were assessed in experimental model of bronchial asthma. The study evaluated the possible effects of UNIM-352 on biochemical markers and structural changes in allergen induced airway-remodelling in rats. Wistar rats were immunized on day 1 with ovalbumin and Al (OH)3 and challenged with aerosolized ovalbumin from day 15 to 21. They were then divided into four groups and treated orally with vehicle, UNIM-352 (200 or 400 mg/kg) or Prednisolone (10 mg/kg). The results suggested that UNIM-352 prevents the development and progress of the structural and biochemical changes seen during airway remodelling and is beneficial in cases of chronic refractory bronchial asthma.<sup>37</sup> Furthermore, UNIM-352 may act by preventing infiltration of the eosinophils and neutrophils (the effector cells in asthma) and reducing the levels of IgE and Th-2 cytokine, IL-4 which are responsible for release of various inflammatory mediators, thus contributing to the therapeutic benefits observed in patients of bronchial asthma. All these effects were comparable to standard drug Prednisolone. The results indicated that UNIM-352 have anti-inflammatory and immuno-modulatory properties contributing to its beneficial effects in bronchial asthma.<sup>38,39,40</sup>
4. A clinical trial was conducted at Regional Research Institute of Unani Medicine, Srinagar. The diagnosed cases of bronchial asthma with breathlessness, cough with or without expectoration, wheezing, tightness of chest, impaired lung function test of either sex and between 10 and 70 years of age were included in the study. The aim of the study was to investigate the efficacy and safety of UNIM-352 in patients of *Zeequn Nafas*. A total number of 2,844 patients were enrolled. Each patient was given study drug "UNIM-352" (A coded polyherbal Unani formulation containing Seer (*Allium Sativa* Linn.); Karanjwa (*Caesalpinia bonducella* Flem.); Hulba (*Trigonella foenum-graecum* Linn.); Katan (*Linum usitatissimum* Linn.); Chillbeenj (*Strychnos potatorum*); Karanj (*Pongamia pinnata* (Linn.) Pierre; and Honey) in the dose of 10 gm twice daily with lukewarm water for twelve weeks. After completion of the treatment, the patients were assessed at 1-2 weeks intervals up to next four weeks. Analysis of the data showed wide differences in subjects and their variables. The therapy showed significant relief (P< 0.05) of all the four parameters (viz dyspnoea, wheezing, tightness of chest and cough with expectoration) taken into consideration.<sup>11</sup>
5. A clinical trial was conducted by Hakeem Naseer et al to assess clinical efficacy of Unani herbal formulation in *Zeequn Nafas* (Bronchial asthma). The diagnosed patients of Bronchial asthma between age group above 14 to below 65 of both sexes were enrolled for the study. A total of 40 patients were randomly allocated into two groups comprising 20 patients in each of test and control groups respectively. The test drug formulation containing Kalonji (*Nigella sativa*), Darchini (*Cinamum zeylanicum*) and Shehad (Pure Honey) was given to test group patients. 20 gm of test formulation in semi-solid form twice daily, 10 gm in morning before breakfast and 10 gm at bed time. Control group was given tablet Ambroxol in the dosage of 75 mg per day. The treatment period in both Test and Control groups was 45

days. The overall effect of the Unani test drug formulation was found quite encouraging in the treatment of *Zeequn Nafas*. Significant improvement was observed in cough, breathlessness, rhonchi and values of predicted FEV1%, FEV1/FVC and PEF in test group in comparison to standard control group.<sup>41</sup>

6. A case of a 21-year-old male patient with complaints of breathlessness, cough with sputum and loss of appetite was reported by Yasmeen Shamsi et al. He was a known case of bronchial asthma for the past 19 years, for which he was dependant on bronchodilator inhalers. He was treated exclusively with Unani medicines. He was prescribed a decoction of Tukhm khatmī (*Althaea officinalis* Linn.), Tukhm khubbāzī (*Malva sylvestris* Linn.), Aşl-us-sūs (*Glycyrrhiza glabra* Linn.), Parsiāoshān (*Adiantum capillus-veneris* Linn.), Ābresham khām muqarraz (silkworm cocoon) and Ustukhudūs (*Lavendula stoechas* Linn.). In addition, he was given Cap. Pitkiryā (an anti-allergic herbal formulation manufactured by Hamdard Laboratories, India), Syp. Jigreen, Habbe Zeequn Nafas and Qurs Kushta Abrak Siyah. Within ten days of treatment, the patient showed signs of clinical improvement and decreased need for inhalers. The patient continued to take the medicines and reported that the use of inhalers decreased significantly, which was no longer needed by him after two months.<sup>42</sup>
7. Irfat Ara et al conducted a clinical trial to assess the response of herbal formulation to the withdrawal of bronchodilators and corticosteroids and to see the efficacy of herbal drug in bronchial asthma. In this trial patients with breathlessness, cough with expectoration, wheezing, of either sex, age group between 10-70 years and also patients who were cortisone dependent and also using bronchodilator were included. The total of 2559 cases of *Zeequn Nafas* were studied. The test drug was a coded Unani formulation named "Zn5" in the form of *Majoon* (Semi-solid preparation) containing Seer (*Allium Sativa* Linn.), Karanjwa (*Caesalpinia bonducella* Flem.), Hulba (*Trigonella foenum-graecum* Linn.), Katan (*Linum usitatissimum* Linn.), Chillbeenj (*Strychnos potatorum*), Karanj (*Pongamia pinnata* (Linn.) Pierre) and Honey. It was given in the dose of 10 gm twice daily with lukewarm water for a period of 12 weeks. The severity of the bronchial asthma was evaluated by spirometry. Follow-up of the patients were done on 4, 8 and 12 weeks of treatment. After the completion of duration of therapy, the patients were assessed at 1-2 weeks intervals up to next four weeks. A sum of 2559 patients were registered, out of which 1778 (69.48%) patients used broncho-dilators and cortisones. After completion of protocol therapy, it was found that 1407 (79.13%) patients had withdrawn the use of bronchodilator and cortisones. Hence it was concluded that the coded Unani formulation Zn5 successfully reduces the symptoms and signs of the disease and helped in withdrawal of cortisones and bronchodilators.<sup>43</sup>

## V. CONCLUSION:

Bronchial Asthma is a chronic respiratory disorder. It is one of the oldest diseases. Its clinical sign and symptoms trace since last more than 3 thousand years as recorded in Egyptian manuscript known as *Eberus paperus*. Since Asthma has a strong link with the allergies and nowadays there is an increase in environmental pollution and also the allergens which lead to an increase in the incidence of the disease. Asthma is one of the major health issues in India.

The conventional system of medicine does not cure Asthma but can control the symptoms and a life time consumption of medicines is needed. Modern medicines have bronchodilators and corticosteroids for the treatment of asthma, which have toxic effects to other organs.

Unani physicians claimed and practiced safe and effective management in various respiratory disorders like *Zeequn Nafas* (Bronchial Asthma). There is an ample of single and compound drugs available in Unani system of medicine for the management of *Zeequn Nafas*. These drugs are free from harmful chemicals hence they are safe, effective and are practiced from centuries.

In the last few decades, research has been focused on scientific evaluation and standardization of Unani herbal drugs for their safety, efficacy and potency. Few such scientific studies are focused in this review but there is need for more elaborative research to establish the efficacy of these drugs in bronchial asthma.

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**VII. CONFLICT OF INTEREST:** There is no conflict of interest to declare.



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