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Study the Effect of Using Raw and Cooked Garlic in Daily Food on Sleeping of Asthmatic Patients

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Abstract: Sthma is a common chronic disease that defined with reversible and periodic contractions of brunches as a result of different stimulants. People with asthma often suffer from nighttime coughing, wheezing and breathlessness that disturb their sleep. Garlic also has a reputation for helping people to get to sleep. In this study we follow back in history of asthmatic people that use raw and cooked garlic in daily food. Data has been collected through a questionnaire and analyzed. Results show that people with using garlic had long time of sleep and have better time of sleeping. Garlic eating could have good sleep and night comfortable in the asthmatic patients. The effects of the cooked garlic, in compared with raw garlic have no different. Therefore asthmatic patients could use cooked and raw form of garlic.

Key words: Asthma · Sleep · Raw and Cooked Garlic

INTRODUCTION

Asthma is a common chronic disease that occurs in all age groups that inflames and narrows the airways. The high prevalence of asthma means it has significant health costs, increasing in the most severe disease forms. So many environmental and genetically factors are effective in Asthma. Asthma is defined with reversible and periodic contractions of brunches as a result of different stimulants [1-3]. Asthma causes recurring periods of wheezing, chest tightness, shortness of breath and coughing. The coughing often occurs at night or early in the morning. Asthma affects people of all ages, but it most often starts during childhood. Asthma attacks can be triggered by allergies, which can temporarily increase the inflammation of the airways in a susceptible person. Asthma treatment can vary from anti-inflammatory, bronchodilator, asthma inhalers to oral medications orasthma drugs delivered in an asthma nebulizer and breathing system. The most important allergens for people with allergic asthma appear to be those asthma triggers that are inhaled. Hay fever or seasonal allergic rhinitis occurs when a person comes in contact with an allergen or substance sensitive to it Meiler *et al.* [4], Zohre Babaloo *et al.* [5] and Kılıc *et al.* [6]. Common inhaled allergens include: Animal dander (Skin, saliva), Dust mites, Cockroach particles, Mold, Pollen and etc. Medical experts recommend that all people with allergies and asthma try to identify possible inhaled allergens that may trigger asthma symptoms [3, 7].

People with asthma often suffer from nighttime coughing, wheezing and breathlessness that disturb their sleep. It is not clear whether there is a circadian rhythm factor (A circadian rhythm is a rhythm of biological functions occurring in a 24 hour periodic cycle) responsible for these nighttime disturbances or whether sleep in some way contributes to them, but studies designed to uncover the exact influence of sleep or circadian rhythms on asthma have been largely inconclusive. Even so, where the references to those many researchers that asthmatic symptoms are at least partly due to circadian rhythms and use the term "nocturnal asthma" to describe the phenomenon of asthma symptoms worsening at night. Not all asthma sufferers experience nocturnal asthma [5, 8, 9]. People with asthma should also be aware that nocturnal asthma is associated with more severe disease and increased mortality. There are several underlying mechanisms that

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may shed light on how and why nighttime seems to exacerbate asthma symptoms. First, airway resistance increases throughout the night, whether or not a person sleeps, although the increase is much greater if the person sleeps. Second, evidence suggests that airway function is best just before the onset of sleep and decreases as sleep progresses. That is, the more a person with asthma sleeps, the greater the impairment of his or her lungs. This phenomenon is true for all people, although the effect tends to be greater for people with asthma. These airway changes do not typically disturb sleep in healthy subjects. However, people with asthma frequently show the first symptoms of their disease during sleep, according to research. Some research found that children whose sleep was disturbed by nocturnal asthma also exhibited signs of psychological problems and impaired performance in school. However, they also found that if treatment were given to improve the nocturnal symptoms and thus reduce sleep disturbance, improvement in mental function followed. The goal of any asthma treatment plan is to minimize flare-ups and maintain normal or near- normal breathing and to participate in a full range of activities such as exercise and childhood play. In addition to modifications to lifestyle and self-directed disease management, most people with asthma use a combination of quick-fix and long-term medicinal remedies. It is important to note that sleep disturbance or insomnia is sometimes a side effect of asthma medication [10-12].

On the one hand garlic is generally classed as a "hot" herb and has been known as a stimulant. Some consumers have even objected to garlic because of the "over-stimulation" it can produce by "inflaming" the passions. Yet despite that garlic also has a reputation for helping people to get to sleep [10, 12, 13].

Therefore in this study Aimed to follow back in history of asthmatic people that use garlic in daily food and was studied the effect of using garlic in sleeping of asthmatic people without of researchers' interference.

MATERIAL AND METHOD

In this study, data was collected from family of asthmatic patients and focus on the dietary and food components regime. This study is a retrospective study that data has been collected through a questionnaire. Data of the demographic, diet, sleeping satisfaction, allergic disorders and asthma problem and etc. have been collected. Finally, data were analyzed using statistical software (SPSS 20) and Results were evaluated.

RESULTS

Analysis of this observation has been showed in figures 1 and 2 that show people with using garlic had long time of sleep. Figure 3 compared sleeping satisfaction in two groups that used raw and cooked garlic in food. In people who using garlic, satisfactory of sleep is better and upper than people with no using garlic. This was in all people and in each people during year.

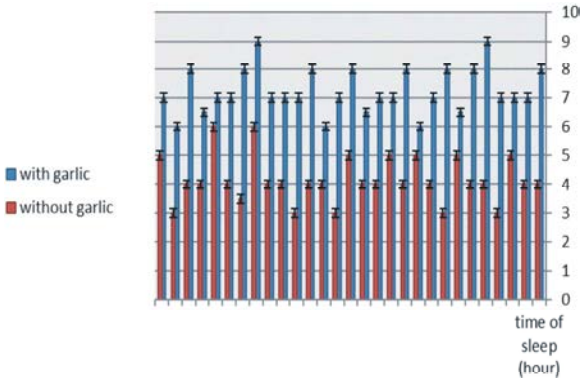

Fig 1: Time of sleep

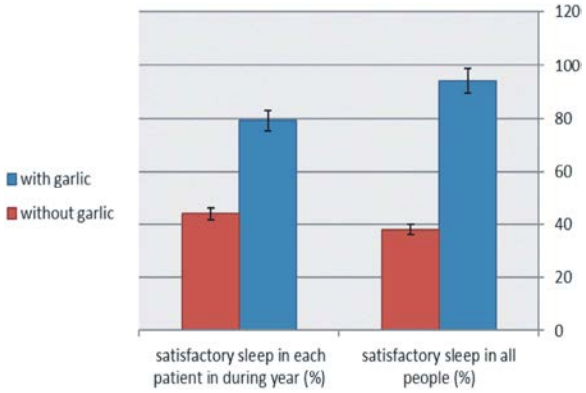

Fig 2: Satisfactory of sleep

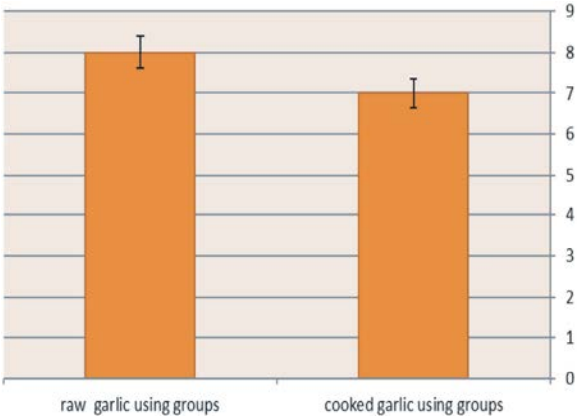

Fig 3: Sleeping Satisfaction in raw and cooked garlic using groups

DISCUSSION

Asthma patients must take their medications as prescribed, be able to recognize and avoid things that may trigger an attack and act quickly when asthma symptoms appear to be getting worse. For people with asthma, especially children, it is very important to get adequate sleep. Nocturnal asthma symptoms may result from decreased respiratory function during sleep. Taking anti-inflammatory medications may help this condition. Also, there is some evidence that people with asthma are at greater risk of developing sleep apnea, a condition in which breathing is briefly and repeatedly interrupted during sleep. A visit to a sleep center is required to determine whether a person with asthma also suffers from sleep apnea. People with asthma may request a referral to a sleep center from their primary care physicians [2, 5, 7, 11].

Airway inflammation plays an essential role in the development of asthma, but the precise nature of the inflammation is still mysterious. Asthma knowing the extended family is the basis of extensive studies of the genetics of asthma but not for a large part of the inheritance of genes that have been discovered to date in this area has accounted for. Despite all the progress made during the last two centuries, is still a major cause of asthma is not completely understood. Thus, treatments that do not specify mechanisms underlying the pathogenesis and treatment of asthma are not part of the cure. Medications available to relieve symptoms and improve pulmonary function and the response of the lungs, but they do not prevent the progression of disease and attacks [4, 6, 12].

Asthma attacks often occur between the hours of 4-2 am, sleep-related conditions such as sleep apnea or sleep through the night may worsen asthma attacks. During periods of increased activity in asthma patients usually experience asthma attacks at night; this may lead to the death of asthmatic patients are from midnight to 8am [14].

It seems that sleep disorders are associated with asthma, the prevalence of insomnia in patients with asthma 1/39% and daytime sleepiness in these patients, 4/12%, respectively. Obstructive sleep apnea with an incidence of 4-2% in the general population have profound effects on health public in prevalence of asthma patients, 4% is the sleep [15, 16].

Several factors seem to be involved in increasing rates of asthma patients from sleep disorders such as apnea and hypopnea episodes can reduce blood oxygen levels that occur subsequently noted. This can cause irritation and frequent waking at night in asthmatic patients is the same, this can result in reduced effectiveness of sleep with sleep well at night they may not. The consequences of sleep problems can cause daytime sleepiness Daily Impaired function is odd [8, 10, 17].

It seems that garlic might help you to get a good night's sleep under certain conditions. For example, in asthma and having trouble breathing, garlic might be able to assist. Garlic can help to dry up the nasal passages in some cases, improving breathing and helping to reduce snoring in some people. Garlic has active ingredients of allium sativum. It is used in high blood pressure, blood pressure management [12, 14, 18].

Zare *et al*. [19] suggested that aged garlic extract has the potential of attenuation of inflammatory features of allergic airway inflammation in murine model. But Ma [20] show raw garlic could induce life-threatening anaphylaxis. However, most of its allergens are heat labile and patients allergic to garlic might tolerate the cooked one well.

Garlic contains a lot of anti-inflammatory compounds that can treat asthma symptoms and reduce it. There are also plenty of antioxidant flavonoids, so eating of this on a daily; it could reduce the severity of asthma attacks. Garlic could be had inflammatory effect. Garlic for his warm nature is considered a vegetable for the treatment of asthma and allergies [11, 13, 15].

Kyo *et al*. [21] reported anti-allergic properties for garlic extract. In their rodent basophile cell line model, addition of garlic extract reduced histamine release.

Garlic compounds can reduce blood pressure. Some of these compounds have anti-inflammatory effect so these could control allergic asthma attack. Therefore these factors could produce better conditions to sleeping, have good sleep and night comfortable in the asthmatic patients. In the cooked garlic, in compared with raw garlic, these effects are a little weak but in results, there are no significant meaningful and the effects of the cooked garlic, in compared with raw garlic have no different. Therefore eating of garlic has benefit effect on sleeping of asthmatic patients and they could use cooked form of garlic if they have unwanted condition to use raw garlic.

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