Bronchial Asthma: Psychosomatic aspect

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Abstract: Bronchial asthma is a stress disease that may be induced by various stressors. Psychosocial stressors, working through the central nervous system as an inducing factor, cause disorders in the autonomous nervous system, the endocrine system, and the immune system, and affect the onset and process of asthma. The disease tends to become serious and difficult to cure unless stressors are properly dealt with. The involvement, or lack of, psychosocial stressors, and the psychological state of the patients, are mainly diagnosed from interviews with them and observation of their behavior. With the premise that somatic medical treatments are fully carried out, the patients are encouraged to become aware by themselves of the relationship between stressors and asthma. If depression or anxiety is observed, the patients are treated with an antidepressant or an anti-anxiety agent. If asthma is not relieved by the continued practice of ordinary psychosomatic medicine, or if it is desired to reduce the levels of anti-asthmatics or to stop the medication, then other therapies can also be utilized. These include autogenic training, bio-feedback therapy based on respiratory resistance value, and fasting therapy.

Key words: Bronchial asthma; Psychosomatic medicine; Psychological approach; Psychotropic drug

Introduction

When we are exposed to various stressors, we try to respond or to adapt ourselves to the stress. As a living body, we try to maintain homeostasis through the endocrine system, the immune system, and the autonomic nervous system. If, however, we cannot sufficiently
respond, homeostasis of our body will fail, and we will develop stress-related diseases.

Various stressors are involved in the onset and process of bronchial asthma. It is one of the representative psychosomatic diseases of the respiratory system which is reported to be related to psychosocial stressors. Therefore, we need to take a comprehensive psychosomatic approach to the physical and psychosocial aspects. A survey by Miyaoka et al. revealed some cases in which doctors treating outpatients realized that the patients had some psychological problems. These patients were found to represent 56% of all the patients with bronchial asthma. A questionnaire survey of the asthmatic patients conducted by the Niigata Asthma Treatment Study Group showed that about 10% of the respondents answered that “Asthmatic attacks have a relationship with stress.”

Diagnosis and Treatment of Bronchial Asthma

For the diagnosis of bronchial asthma, there is “A guideline for the prevention and treatment of asthma”, which serves as a guide to the clinical diagnosis of the disease. However, when we diagnose bronchial asthma as a stress-related disease, it is important to realize that psychosocial stressors are involved in its onset and process. In this report, we define bronchial asthma as a stress-related disease, and describe its diagnosis and treatment from the viewpoint of psychosomatic medicine. Refer to existing textbooks for the somatic diagnosis and treatment of bronchial asthma.

Chronic inflammation of the respiratory tract is maintained by atopy, in which hypersensitivity of the respiratory tract has been determined innately, by the ability to produce IgE, and by the immune reaction. When the acquired attack-inducing factors are added, bronchial asthma occurs. Psychosocial stressors serve as the attack-inducing factors. They pass through the central nervous system, cause disorders in the autonomic nervous system, the endocrine system, and the immune system, and affect the onset and process of asthma. From the perspective of psychosomatic medicine, asthma is described in the above-mentioned guideline as quoted: “When we look in detail into the onset and process of asthma from both the mental and physical aspects, it becomes clear that, in many cases, the patients have undergone more physical changes caused by various psychosomatic factors than before the onset of the disease.”

1. Practice of psychosomatic diagnosis
   (1) Cases of asthmatic attacks: Prompt treatment of attacks should have priority over all other things.
   (2) Cases of no attack: Bronchial asthma is diagnosed physically. At the same time, the onset and process are also reviewed from the psychosomatic aspect. Patients are examined to see if there is a possibility of an involvement of the following psychosocial stressors:
      (a) Physical stressors: Changes in temperature, humidity, and atmospheric pressure, and especially the influence of air conditioning and chills.
      (b) Chemical stressors: Smoking, exhaust gas, alcohol, and drugs.
      (c) Biological stressors: Microbes (bacteria, viruses, etc.), pollen, and foods.
      (d) Psychological stressors: Anxiety, fear, anger, hatred, inferiority complex, guilt, and the psychological stimuli that cause these emotions.
      (e) Social stressors: School entrance examinations, employment, reassignment, promotion, retirement, marriage, divorce, housing loan, and legal problems.

Care should be taken when we try to understand the psychosocial stressors because some-
times we simply consider these stressors as “problems of mental attitude,” without evaluating them correctly. The expression “problems of mental attitude” may have an implication that reduces the value of patients as human beings. When we conduct diagnostic interviews with the patients having ordinary adult onset bronchial asthma, we consider the following points:

(a) Actual living environment: Presence or lack of noise, exhaust gas, fungi, etc.
(b) Situations in the workplace: Working hours, workload, excessive training or lack of sufficient training, etc.
(c) Changes in family life and, if there are some changes, how family members respond to the changes.
(d) How to treat asthmatic attacks, and how the family responds to the attacks.
(e) Decreased appetite, sleep disorder, depression such as decreased motivation, symptoms caused by anxiety, etc.
(f) Record of visits to medical institutions, patients’ distrust of medical institutions, etc.

We obtain these pieces of information from our interviews with the patients. Such information is very private, and is obtained for the first time when a good rapport has been established between a doctor and a patient. Thus, it is important to make sure that the patients are free to choose not to tell their doctor what they do not want to tell.

We check the patients for the existence, or lack, of psychosocial stress, and evaluate the psychological aspect of the disease, mainly through interviews and the observations of the patient’s behavior. But, if the patient agrees, we can utilize a psychological test as an aid. There are such questionnaires as the Comprehensive Asthma Inventory (CAI),6 the Self-Rating Questionnaire for Depression (SRO-D), and the State-Trait Anxiety Inventory (STAI). We also make use of the Somatosensory Amplification Scale (SSAS)7 for near-fatal asthmatic patients.

2. Practice of psychosomatic medical treatment

The following treatments are given on the premise that somatic medical treatments are also fully carried out.

(1) Psychosomatic treatment for outpatients

It is important to have the patients make regular visits to the offices of their attending physicians, and to build a good relationship between the patients and the medical institutions. For this purpose, we need to explain to them at their first visit that bronchial asthma is a curable disease, that they should visit the hospital on a regular basis, that they should understand what is being prescribed for their disease and, by giving them an actual goal for the treatment, that they should not make any uninformed judgment of their own.8

After the need for regular visits to the hospital has been established, we take the detailed clinical histories of patients and work out what we can do for them, starting with those problems that can be easily recognized by the patients. For better understanding of the psychosomatic relationships, we as physicians do not point out the problems to the patients, but we help them to think by themselves and to become aware of those problems. Then, treatment will become effective when we address not only the bodily symptoms but also the asthmatic journals and the changes in peak flow value.

(2) Psychosomatic medical approach

As a psychological approach, there is a step-by-step treatment proposed by Ago.9 We follow this approach to continue with the treatment. If asthma is not relieved by the continued practice of ordinary psychosomatic medicine, or if it is desired to reduce the levels of anti-asthmatics or to stop the medication, then other therapies can also be utilized, including autogenic training, bio-feedback therapy based on the respiratory resistance value, and fasting therapy.

(3) Drug treatment

a) Anti-depressants: If the process of bronchial asthma is affected by depression, some-
times the disease conditions become complicated and we have difficulty in giving treatment to the patients. Therefore, if any depressive conditions are observed, it is necessary to treat them with an anti-depressant. But anti-depressants are known to have an anti-cholinergic action and, because of this action, patients may find it difficult to cough up sputa. Thus, it is better to start with an anti-depressant that is less anti-cholinergic, such as those drugs that inhibit the selective reuptake of serotonin, while paying full attention to the adverse effects.

b) **Anti-anxiety agents**: Anti-anxiety agents may be used in those cases where the patients are emotionally unstable and hyperventilation is observed, or where the patients have severe complaints and tend to be seized by panic in spite of slight attacks, as evidenced by physiotherapeutic findings and the results of blood gas analysis. However, anti-anxiety drugs have a respiratory depression and a muscle-relaxing action, and it is better not to use them in cases of severe attacks and when symptoms are complicated. If it is necessary to use one, an anti-anxiety drug of the non-benzodiazepine type can be safely used, as this type of agent has less muscle-relaxing and respiration-restricting action.

**In Closing**

Serious conditions and intractable asthma are often observed when stress is not properly dealt with. In the treatment of asthma, it is important to approach it not only from a physical aspect but also from a psychosocial aspect. If involvement of psychosocial factors has become clear during the process of diagnosis in the early stage of onset in individual cases, then we need to take adequate measures against the relevant factors.

**REFERENCES**


