

Asthma and allergic rhinitis connections with psychotherapy

Abstract

There is a close relationship between emotional tensions and respiratory function, which makes it likely that many diseases of this apparatus have aetiology or are compromised by psychogenic factors, which occurs, for example, in allergic diseases such as rhinitis and asthma, as well as in certain inflammatory diseases. Asthma is diagnosed by the sensation of oppression in the chest, dyspnea that can evolve to cyanosis, discrepancy between the combined action of the diaphragm and the levator muscles of the ribs, which remove air through the narrowed bronchioles, and the weak exhalation force, which depends on the elasticity of the lungs, making breathing difficult and leading to emphysema during paroxysm. In the initial stages there may be simple cough; later, the expectoration of a thick, foamy phlegm begins. The temperature is normal and the pulse is tachycardic. Auscultation reveals crackling rales and wheezing. Asthmatics can improve with the various types of psychotherapy: supportive, cognitive behavioral techniques, counseling, relaxation techniques and mainly psychoanalytic therapy, either individual or in group. In conclusion, the treatment of asthma and allergic rhinitis, should be done by two specialists, the allergist and the psychotherapist.

Keywords: asthma, rhinitis, psychology, treatment, allergy

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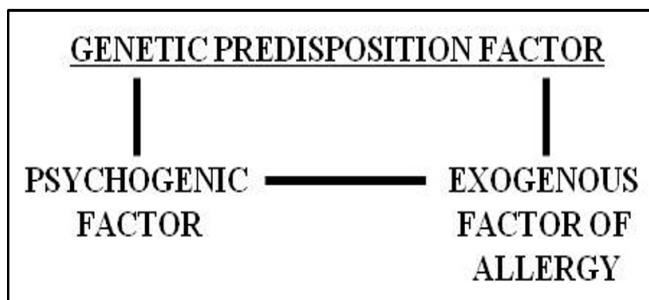
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Introduction

Emotions, resulting from conscious and unconscious conflicts, affecting the regions of the posterior cingulate, anterior hippocampus, insula, and Brodmann zones 13 and 14 can produce breathing disorders. In fact, the “sigh” is an evident clinical manifestation of anxiety, as well as the sudden stop of breathing (in the popular expression: “the emotion was so much that it made me stop breathing”). Crying and asthma are complex expressive phenomena in which the expiratory phase of breathing is included.¹

There is a close relationship between emotional tensions and respiratory function, which makes it likely that many diseases of this apparatus have aetiology or are compromised by psychogenic factors,²⁻⁴ which occurs, for example, in allergic diseases such as rhinitis and asthma, as well as in certain inflammatory diseases.⁵

For an allergic disease to manifest, three factors are important:



The joint action of these three factors is essential for the allergy to manifest. There are special cases of asthma, the so-called hysterical

asthma^{4,6,7} without allergic factors, and it is not asthma per se, as they have different characteristics.⁸

It has been demonstrated that always if, during a prolonged time in the same workplace, end by acquiring a hypersensitive to the allergens that surround. Sensitization is a forced physiological process; this fact explains why a small part presents allergic manifestations, which values the importance of the genetic and psychological factor.^{9,10} Air pollution is the contamination of air due to the presence of substances called pollutants in the atmosphere that are harmful to the health of humans and other living beings, or cause damage to the climate or to materials.¹¹ It is also the contamination of the indoor or outdoor environment either by chemical, physical, or biological agents that alters the natural features of the atmosphere.¹²

In asthma attacks, the lumen of the bronchi is narrowed by a double mechanism: 1) internal, the lumen is invaded by excessive mucus, which can cause obstruction, due to its greater consistency and viscosity (consisting of nitrogen, carbohydrate, and sialic acid) 2) internal; the bronchi are compressed by the constriction of the smooth muscles of the bronchial wall; this spasm can be verified by the use of radioisotopes or aminophylline that has a relaxing action. It is possible that with antigen-antibody contact histamine or acetylcholine is released, since the mucous glands and bronchial muscles are stimulated by cholinergic fibers. During the crisis, the excretion of corticosteroids decreases and increases as soon as it slows down.¹³

There are two types of asthma: extrinsic and intrinsic. Unicists think that all asthmatics are allergic; it is not true, there is hysterical asthma, which is intrinsic, which is why this division is important in terms of treatment. The differentiation of patients can be made according to Table 1.¹⁴

Table 1 Differentiation between intrinsic and extrinsic asthma

	Intrinsic	Extrinsic (Allergic)
Genetic factor	Absent	Present
Skin tests	Absent	Present
Age of onset	After middle age	Into adulthood
Bronchial mucus	Excessive	Present
Complications	Bronchitis, emphysema and "cor pulmonale"	Bronchitis and emphysema
Treatment	There is no	Anti-allergy drugs, corticosteroids, monoclonal antibodies and psychotherapy
Mortality	Above 5%	Rare

Intrinsic asthma can also be of two types: hysterical or fibrotic (similar to other collagen diseases) found in adults, it is rebellious and does not come across eosinophils in the sputum, but bacteria.

Asthma is diagnosed by the sensation of oppression in the chest, dyspnea that can evolve to cyanosis, discrepancy between the combined action of the diaphragm and the levator muscles of the ribs, which remove air through the narrowed bronchioles, and the weak exhalation force, which depends on the elasticity of the lungs, making breathing difficult and leading to emphysema during paroxysm. In the initial stages there may be simple cough; later, the expectoration of a thick, foamy phlegm begins. The temperature is normal and the pulse is tachycardic. Auscultation reveals snoring and wheezing ("organ barrel or cat squeak").

Type 2 immune response: since the discovery of T-helper (Th) subsets, it was demonstrated in the last three decades that almost all immune cells display functional subsets characterized by distinct signature cytokines and surface receptors. Generally, it is considered that a type 2 immune response is the main player in the pathogenesis of eosinophilic asthma, allergic rhinitis, chronic rhinosinusitis with nasal polyps, eosinophilic esophagitis, and extrinsic atopic dermatitis. The type 2 immune response is an immune response to environmental noninfectious proteins and helminths, and involves Th2 cells, type 2 B cells, group 2 innate lymphoid cells, type 2 macrophages, a small fraction of IL-4-secreting NK cells, IL-4-secreting NK-T cells, basophils, eosinophils, and mast cells.^{8,15}

The exposure of pollen sensitive individuals and pollen not sensitive to dust well tolerated, when the pituitary mucosa is in good functioning, nothing happens, but if it is hypersensitive due to a previous allergic crisis or infection, they react badly, that is, with hyperemia and edema. When pollen-sensitive individuals are placed in front of the allergen, and without emotional conflict or anxiety, hay fever may not appear, but if placed in a situation of guilt, resentment, anger or sexual frustration, there is immediate nasal hyperfunction (red mucosa and swollen turbinates with complete obstruction). This nasal hyperfunction can confuse the diagnosis of sinusitis. A patient with a runny nose but calm and at rest, the alteration of the mucosa is not noticed, but if he is exposed to disgust and irritation, the blockage of the nostril is soon noticed. They would be forms of defense reaction of the organism, in the sense of protecting itself against the aspiration of foreign gases, dust, etc.; it would be to protect oneself from the "bad things" that would penetrate the organism or to defend oneself, eliminating these "bad things" (bad feelings) through rhinorrhea. It has been verified in patients with chronic bronchitis that the amount of sputum varies with the barometric state, but mainly with the emotional state.

Purcell et al.¹⁶ found that steroid-dependent children were more neurotic, that is, they felt more rejected by their parents. In 79 hospitalized asthmatic children, spraying powder from the home did not produce asthma, as it was far from the bad psychological influence of the parents.¹⁷

The personality of asthma patients can also be studied in the literature. The writer Marcel Proust is one of the best examples ratifying what we have just written. In his autobiographical background work, he made a subtle psychological analysis of his asthmatic personality. First, his fixation on his mother and fear of losing her became evident at the age of 13, when his mother asked: "what would be the worst misfortune for you?"; he answers: "Being separated from Mom." One afternoon, having his mother invited to dinner, he could not go to say goodbye to him; he couldn't resist the urge to go and hug her. This act of disobedience provoked a warning from his parents, but his crying made his father say: "since you have become sick, sleep in the next bed"... From that moment on, he recognized the anguish of love, his unsociability, and became a great asthma patient and a great writer. Already in his first works, the deep conflict of his asthmatic psyche revealed itself with vigor and clarity. A subtle analysis of the psychological mechanisms of love and jealousy with his sexual observations, was described in "Sodom and Gomorrah". His work, which can be considered a confession, only began after the death of his mother.^{4,7} These facts suggest that an intense and unsatisfied desire to be loved (forbidden and incestuous love) influences the individual's allergic sensitivity.

Asthmatics can improve with the various types of psychotherapy

Supportive psychotherapy: Brown¹⁸ and Rackemann¹⁹ found that the allergist exercises a supportive therapy for asthmatics, from his dedication and his greater presence (application of skin tests or treated in acute crises), with which very satisfactory results are sometimes obtained. This psychotherapeutic facet is an important part of anti-allergic treatment. Hypnotic psychotherapy: contradictory results have been discussed, however, in some cases there is the disappearance of the seizures^{4,20} and in others²¹ only an improvement returning some time later.

Analytical psychotherapy

I. Individual: professionals using analytical psychotherapy have cured patients with asthma and eczema; they also described the "schizophrenic pseudo-allergy", that is, individuals who had allergic symptoms to mask a psychotic process. Several studies have emerged correlating asthma and psychosis, in which asthma alternated with psychotic crises. There is also the psychosomatic approach that can present therapeutic results.

II. Group psychoanalysis.

Group psychoanalysis for asthmatics confirms this patient's aggressive dependence on his mother and fear of losing her, as well as the constant need to be the "good guy" in the group, always trying to camouflage his hostility to the analyst and, when he can, always wishing to stand out in a "good interpretation and group experience" in order to take the analyst out of his interpretative position in order to receive praise. However, the acceptance of the father-mother or rather of the "combined figure" who does not reject, who tolerates the attacks and is not destroyed, that the "good has not been contaminated", makes the asthmatic feel more secure in his "good things", which gives him greater tranquility in expressing the feelings of hatred (not as intense as he imagined) and love (not so contaminated).

In short, for asthma and allergic rhinitis to manifest itself, it will be necessary:

- I. A genetic factor: an allergic predisposition.
- II. Traumas in the “molding period”, an absorbent and ambivalent overprotective mother, leading the child to not be able to love her, in a satisfactory way, due to the repressed aggressiveness and subsequent fear of being rejected; for this reason, the asthmatic feels like a two-year-old child abandoned on a deserted road.
- III. Presence of an allergen: be it dust, mold, or even food (chocolate is the most frequent). The allergic state, due to secretory changes in the airways, favors infections, and the respective bacterial toxins can sensitize the organism, since asthma patients generally present a chronic relative insufficiency of the adrenal cortex.

Conclusion

In conclusion, the treatment of asthma and allergic rhinitis (nasal asthma that disappears during the days of asthma attack) can be done by two specialists:

The allergist, doing laboratory research on immunoglobulins (E) and general and specific inflammatory markers (interleukins), as well as doing allergic tests to eliminate allergens, a useful attitude to avoid strong or very frequent crises; however, anti-allergic vaccines or autovaccines help asthmatics, as allergies are often motivated by exaggerated sensitivity to bacterial toxins. The psychotherapist, doing psychotherapy that can be done by cognitive behavioral techniques, counseling, relaxation techniques and mainly psychoanalytic therapy, either individual or in group.

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In memoriam: Luiz Miller de Paiva.

Conflict of interest

None.

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