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References

- Moneret-Vautrin DA, Rance F, Kanny G, et al. Food allergy to peanuts in France. Evaluation of 142 observations. *Clin Exp Allergy* 1998;28:1113-1119.
- Facchini G, Antonicelli L, Cinti B, Bonifazi F, Massei V. Paradoxical bronchospasm and cutaneous rash after metered-dose inhaled bronchodilator. *Monaldi Arch Chest Dis* 1996;3:201-203.
- Nicolas F, Guimbretière J, Nicolas G, Guimbretière L. Six reactions d'intolérance à une émulsion lipidique. Etude immunologique. *Anesth Analg Reanim* 1996;23:647-660.
- Lavaud F, Perdu D, Prevost A, Vallerand H, Cossart C, Passemard F. Baker's asthma related to soybean lecithin exposure. *Allergy* 1994;49:159-162.
- Renaud C, Cardiet C, Dupont C. Allergy to soy lecithin in a child. *J Pediatr Gastroenterol Nutr* 1996;22:328-329.
- Porras O, Carlsson B, Fallström SP, Hanson LA. Detection of soy protein in soy lecithin, margarine and occasionally soy oil. *Int Arch Allergy Appl Immunol* 1985;78:30-32.
- Awazuhara H, Kawai H, Baba M, Matsui T, Komiyama A. Antigenicity of proteins in soy lecithin and oil in soybean allergy. *Clin Exp Allergy* 1998;28:1559-1564.

Anaphylactic reaction to castor bean seeds

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Key words: anaphylaxis; CAP-RAST; castor bean.

● CASTOR bean (*Ricinus communis*) seeds contain castor bean oil, which is nonallergenic and nontoxic; a toxic albumin called ricine; and a globulin which causes allergic reactions.

This seed has a highly sensitizing effect upon occupational workers and residents living close to castor-oil-processing factories

(1). Case reports and epidemiologic observations have discussed asthma in relation to inhalation of castor bean dust. There are a few case reports of severe symptoms and even death occurring after castor bean seeds were chewed by children and even by adults who attempted to use the whole bean, instead of the oil, as a purgative. Ingested ricin may prove fatal in a dose of 0.03 gm. In contrast, in 1943, Spies & Coulson demonstrated that the castor bean allergen is a nontoxic, heat-stable polysaccharide-protein fraction representing 1.8% of defatted castor bean meal (2). Allergic reactions to the seeds are very uncommon. In the literature, we found one report (3) describing two cases in which the ingestion of a single bean produced edema of the mouth, pharynx, and glottis, followed within 5 min by generalized urticaria with giant wheals, which was readily relieved by epinephrine.

After moving to a new home in June 1991, Mrs Cor, born in 1955, developed severe asthma. Skin tests demonstrated allergy to house-dust mite, cat dander, and cypress pollen. A few weeks later, asthma attacks became intermittent and spirometric measurements went back to normal values.

In early July 1998, Mrs Cor, while playing with her son, chewed a castor bean seed. Within a few minutes, she developed giant urticaria lesions and became drowsy. An emergency unit was called. Her blood pressure was 6 mmHg. She was dyspneic and had Quincke's edema. After receiving epinephrine, intravenous steroids, antihistamines, and intravenous fluids, she quickly recovered. One month later, blood analysis demonstrated CAP-RAST (Pharmacia-Upjohn) to castor bean of 80-100 IU/l; i.e., class 5.

This paper deals with an anaphylactic reaction to castor bean seed. In addition to a suggestive history, RAST, which is a very reliable diagnostic tool (4), was strongly positive.

Retrospectively, the occurrence and rapid improvement of asthma noticed in 1991 was

probably due to castor bean-pollen allergy. When the patient moved into her new house, the many castor bean plants growing there were immediately removed. The castor bean plant pollinates from May to October in southern France. Its pollen is considered to be a low sensitizer. There is cross-reactivity between castor bean pollen and seed (5).

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References

- Ordman D. An outbreak of bronchial asthma in South Africa affecting more than 200 persons, caused by castor bean dust from an oil processing factory. *Int Arch Allergy Appl Immunol* 1955;7:10.
- Spies JR, Coulson EJ. The chemistry of allergens: isolation and purification of active protein-polysaccharide fraction CB-1A from castor beans. *J Am Chem Soc* 1943;65:1720.
- Arnold HL. Poisoning from castor beans. *Science* 1924;59:577.
- Panzani R, Johansson SGO. Results of skin test and RAST in allergy to a clinically potent allergen (castor bean). *Clin Allergy* 1986;16:259-266.
- Singh A, Panzani RC, Singh AB. Specific IgE to castor bean (*Ricinus communis*) pollen in the sera of clinically sensitive patients to seeds. *J Invest Allergol Clin Immunol* 1997;7:169-174.

Unconventional medicine: a risk of undertreatment of allergic patients

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Key words: allergy; risk factors; unconventional medicine; undertreatment.

● ALLERGIC respiratory diseases (asthma and rhinitis) represent a problem with high and

increasing prevalence: international consensus statements on their treatment and management have been published in recent years (1, 2). Despite informative and educational efforts, studies have shown that these guidelines are generally ignored (3, 4). Several general explanations of this state of affairs have been reported: poor patient compliance, lack of patient/physician/specialist relationships, and inadequate patient education. The use of unconventional or "alternative" medicine represents an additional and underestimated factor contributing to poor disease management in the general population (5) and in asthmatics in particular (6). In this survey, we aimed to evaluate the prevalence, characteristics, and outcomes of unconventional therapies in allergic patients.

The investigational population included 970 consecutive outpatients referred to four different allergy units. They were asked to answer a simple questionnaire of 18 questions covering the following items:

- 1) demographic data
- 2) current (or within the last 3 years) use of unconventional remedies
- 3) type of unconventional treatment used (i.e., homeopathy, herbalism, acupuncture, chiropractics, hypnosis, ajurvedic medicine, or relaxation techniques
- 4) disease to be treated

More than one-third of allergic patients use unproven therapies.

- 5) duration of the treatment
- 6) clinical outcome (excellent, good, moderate, poor, or ineffective) and side-effects
- 7) whether the general practitioner had been informed
- 8) reasons for choosing the treatment.

The distribution analysis was performed by chi-square test.

Exactly 274 patients (28% of the population) reported the use of unconventional medicine. The use of unconventional treatments was significantly more common in women (76%) and in people aged 16–40 years (Table 1). Housewives used alternative medicine preferentially ($P<0.02$). Homeopathy (50%), herbalism (33%), and acupuncture (11%), alone or in combination also with other alternative treatments, were the most commonly used remedies. Such therapies were chosen more frequently for allergic (32.8%), psychological (21.1%), and gastrointestinal (19%) disorders. Some 52% of patients did not inform their physician about their use of alternative remedies. The duration of treatments was generally short (less than 1 month in 47% of subjects and less than 1 year in 39%). The treatment itself was reported to be ineffective or poorly effective in 39%, moderate in 29%, and good or excellent in 32% of cases. The majority of the subjects (94%) reported no side-effect. The use of alternative therapy had generally been suggested by the news media (30%) or by relatives and friends (34%), but 23% of subjects had been recommended such therapy by a physician. Finally, the lack of side-effects

(47%) and a distrust of physicians and conventional medicine (32%) were the most frequent reasons for choosing alternative remedies. Unfortunately, no reliable information about the cost of unconventional treatments is available in our survey, since the patients usually refused to provide this information. It is noteworthy that 71% of the 696 "nonusers" judged unconventional medicine to be as effective as conventional medicine.

The use of unconventional therapies seems to be quite common. In the considered population of patients referred for allergic diseases, about 33% were using (or had used) alternative remedies, generally without medical supervision; nevertheless, these treatments were sometimes suggested/prescribed by physicians. It is noteworthy that the most frequent reason given for choosing these therapies was the absence of side-effects, although serious doubts of the safety of such treatments have been raised (7). The sample herein analyzed does not fully represent the general population, since the patients were selected only in allergy units; this fact explains why we believe that the use of unconventional medicine is generally underestimated. As far as allergy is specifically concerned, more than 33% of patients used unconventional therapies to treat their allergy, although a demonstration of the efficacy of these treatments is lacking (8). This fact suggests that a defect in patient education and information may be a reason for the nonoptimal treatment of allergic diseases. Finally, we urge further trials in various countries to evaluate the global European impact of such treatments for allergic diseases.

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Table 1. Demographic data

	Users	Nonusers	
Number	274	696	
Sex M/F	65/209	373/323	$P<0.001$ users
Age range			
5–15	4	27	
16–40	156	428	$P<0.01$
41–60	102	194	
>60	12	47	

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References

1. Expert Panel Report 2. *Guidelines for diagnosis and management of asthma*. Bethesda, MD: National Asthma Education and Prevention Program, US Department of Health and Human Services, National Heart, Lung, and Blood Institute, National Institutes of Health, 1997.
2. Lund VJ. International Rhinitis Management Working Group. *Allergy* 1994;**49**(Suppl):1-34.
3. Bousquet J, Knani J, Henry C. Undertreatment in a nonselected population of adult patients with asthma. *J Allergy Clin Immunol* 1996;**98**:514-521.
4. Jones HS. Allergic rhinitis: a study on the prescribing preferences in general practice. *Br J Clin Pract* 1989;**43**:30-32.
5. Fisher P, Ward A. Complementary medicine in Europe. *BMJ* 1994;**309**:107-110.
6. Ernst E. Complementary therapies for asthma: what patients use. *J Asthma* 1998;**35**:667-671.
7. Shaw D, Leon C, Kolev S, Murray V. Traditional remedies and food supplements. *Drug Saf* 1997;**17**:342-356.
8. Lewith GT, Watkins AD. Unconventional therapies in asthma: an overview. *Allergy* 1996;**51**:761-769.

Long-term treatment of asthma with β_2 -agonists

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Key words: β_2 -adrenergic agonists; atropine-like drugs; bronchial asthma.

● Out of 25 000 patients with chronic bronchial asthma treated in the years 1980-8 at the allergology outpatient clinic of the Grochow Hospital in Warsaw, the following four groups of patients were isolated:

With this therapy, there is a risk of impaired clinical condition and sudden death.

Group I) 123 patients aged 18-45 years, including 73 women aged 18-45 (mean 30) years treated at the time of observation beginning with inhalations of adrenocortical

steroids (Beclocort or budesonide) 0.2-1.3 mg daily, mean dose 0.8 mg/day, and with methylxanthines 600-700 mg daily and expectorants.

Group II) 118 patients aged 20-50 (mean 38) years, including 68 women aged 19-46 (mean 39) years, treated at observation beginning with similar doses of steroids 0.4-1.0 mg daily (mean 0.6 mg) with short-acting adrenergic receptor agonists (fenoterol) 0.6-1.2 mg (mean 0.8 mg) daily, and expectorants.

Group III) 108 patients aged 20-50 (mean 38) years, including 42 women aged 19-31 years. They received steroids 0.2-1.2 mg, mean 0.7 mg daily, drugs from the atropine group (Atrovent) in daily doses of 0.075-0.15 mg (mean 0.12 mg), and expectorants, like the other group.

Group IV) 58 patients aged 29-42 years, mean 38 years, including 28 women aged 30-41 (mean 36 years), treated at observation beginning with inhaled steroids in daily doses of 0.4-1.2 mg (mean 0.8) with methylxanthines 600-800 mg daily, and β_2 -adrenergic receptor agonists (fenoterol) 0.6 mg daily. They were also given expectorants.

The diagnosis of bronchial asthma was based on history data, spirometric measurements, and treatment with steroids for at least 2 years. The doses of steroids were

chosen by the patients, who were told to increase them until no dyspnea at rest was experienced. β_2 -adrenergic receptor agonists and atropine derivatives were taken systematically only by patients not tolerating methylxanthines. These patient groups were observed for 7 years with the following control examinations repeated at 2-3-month intervals: physical examination and spirometric determination of serum potassium, sodium, and magnesium levels. Morphologic evaluation of blood and chest radiography were done once a year. The steroid doses taken by the patients daily were noted in diaries, and the doctor confirmed and prescribed them during control examinations. The obtained results were analyzed by Student's *t*-test.

As shown in Table 1, after 7 years of follow-up in the group of patients treated with adrenal corticosteroids and β_2 -adrenergic agonist, pulmonary spirometric indices were statistically significantly decreased: FVC from 3.33 to 2.1 ($P<0.01$) and FEV₁ from 2.8 to 1.5 ($P<0.01$). Similar worsening of pulmonary spirometric indices was observed in group III of the patients treated with steroids and atropine derivatives: FVC from 3.04 to 1.8 ($P<0.01$) and FEV₁ from 2.3 to 1.01 ($P<0.01$). No worsening of pulmonary spirometric indices was observed in the group of patients

Table 1. Sudden deaths, spirometric parameters, and mean daily doses of corticosteroids with investigated patients

Investigated n=407		Spirometric parameters		corticosteroids		Sudden death
		1 year x ± SD	7 years x ± SD	1 year mg/day x ± SD	after 7 years mg/day x ± SD	
Group I n=123	FVC/l	3.01 (1.2)	3.0 (1.3)	0.8 (0.4)	0.7 (0.5)	
	FEV ₁ /l	2.40 (0.9)	2.86 (0.9)			
Group II n=118	FVC/l	3.33 (1.2)	1.89 (1.3)	0.6 (0.4)	4.2 (2.8)	6 patients
	FEV ₁ /l	2.80 (1.34)	1.50 (0.9)			
Group III n=108	FVC/l	3.04 (1.2)	1.70 (0.8)	0.7 (0.5)	3.7 (2.1)	3 patients
	FEV ₁ /l	2.30 (1.1)	1.80 (0.9)			
Group IV n=58	FVC/l	3.98 (1.9)	3.0 (2.1)	0.4 (0.6)	0.6 (0.6)	
	FEV ₁ /l	2.80 (1.1)	2.36 (1.4)			