

surrounding redness (10 mm in diameter) and without pseudopodia was observed on the left forearm (Fig. 1A). Internal examination was unremarkable except for laryngeal oedema (Fig. 1B), heavy lungs and reddish coloured foam on trachea and the main bronchi. Histological lung examination showed severe alveolar oedema mixed with areas of acute pulmonary emphysema. Immunohistochemical investigation was performed utilizing antibodies anti-tryptase, anti-TNF α , anti-IL-1 β , anti-IL-15 for lung and skin sections. Great number of degranulating mast cells with tryptase-positive material outside the cells was documented in the lungs. In the skin-samples from the left forearm, a great number of degranulating mast cells with tryptase-positive material outside the cell was observed (Fig. 1C,D) as also a strong positive reaction for IL-15 and TNF- α (Fig. 1E,F). Anti-IL-1 β reaction was negative in all specimens. A post-mortem total-IgE test showed a high titre (114 kU/l), and β -tryptase dosage was > 200 μ g/l.

A fatal anaphylactic shock caused by ceftriaxone intradermal injection was recorded as the cause of death. Cases of fatal anaphylactic shock during intradermal skin tests present immediate medico-legal problems. The medico-legal troubles are: in the case of a patient with a possible allergic reaction to a drug, the tests do require a detailed informed consent. Again, about the standardization of these diagnostic procedures: are all precautions taken, in case some reactions occur?

Patients should receive detailed explanation of the risks of the procedure and about precautionary measures before and during the test. The patient should give oral (or even better written) informed consent for the test. It is essential to have well-trained medical staff, that is immediately available in case of emergency, and facilities for continuous monitoring of the patient's condition. Intravenous access and intensive care room access/emergency treatment should be available depending on the severity of the previous reaction and the type of drug. Spirometry, monitoring of blood pressure, pulse and vital signs must be

performed according to the patient's individual situation. Evolution of life-threatening reactions may make fast access to intubation essential (2). Delayed adrenaline injection contributes to fatalities in anaphylaxis. Reluctance to inject adrenaline because of fear of adverse cardiac effects should be tempered by awareness that the heart is a potential target organ in anaphylaxis, and that myocardial ischaemia and dysrhythmias can occur even if adrenaline is not given (6).

In this case, the judge's verdict found that the physician was negligent in the test procedures and about the delay in managing the anaphylactic reaction. The judge awarded damages to the patient.

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Prevalence of allergic conjunctivitis: a missed opportunity?

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Keywords: allergic conjunctivitis; conjunctivitis; rhinoconjunctivitis.

The link between the upper and the lower respiratory tracts has been consistently established in the past few years. Epidemiological, functional and immunological evidence have led to the unifying hypothesis of upper and lower airways (united airways disease) (5). Allergic conjunctivitis may be part of this entity, but has not been specifically evaluated as co-morbidity. Little focus has been set on the impact of allergic conjunctivitis as co-morbidity to asthma and rhinitis in atopic patients (1).

Asthma, rhinitis and conjunctivitis are common co-morbidities suggesting the concept of one disease.

We determined the prevalence of allergic rhinoconjunctivitis and its relationship with other allergic diseases in a cross-sectional study of individuals aged 13–14 years in public and private schools, in Curitiba. The procedures followed ISAAC methodology (2, 3). Briefly, the participants were randomly selected from schools, according to data provided by the State Education Department. The ISAAC written questionnaire had been previously translated to Portuguese (Brazilian culture), translated back to English and validated. The written questionnaire was self-completed by the students in classrooms. Symptom prevalence was calculated by dividing the number of positive responses to each question by the number of completed questionnaires. The relationship of rhinitis with wheezing and eczema was targeted for by the question referring ocular allergic symptoms (itchy-watery eyes) in addition to its association with nasal symptoms

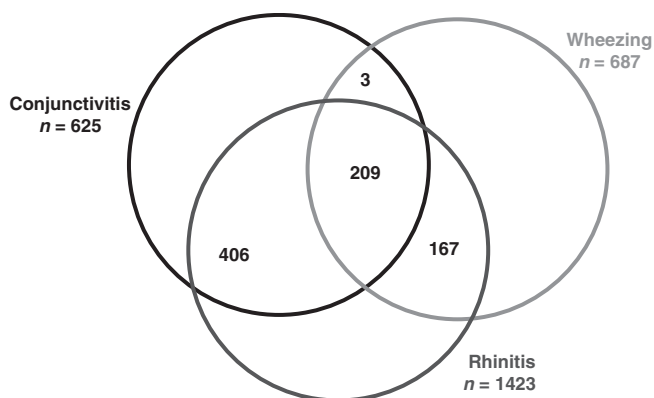


Figure 1 Relationship between conjunctivitis and allergic diseases ($n = 3629$).

during the last 12 months without upper airway infection (nasal pruritus, sneezing and rhinorrhoea) (2, 3).

Three thousand six hundred and twenty-nine subjects answered the written questionnaire (96% returning rate), of whom 625 (17%) presented nasal and ocular symptoms. The frequency of allergic conjunctivitis was similar between boys (48%) and girls (52%). All of the subjects with rhinitic symptoms also presented with ocular symptoms. Among patients with allergic rhinoconjunctivitis, 34% had wheezing during the last 12 months and 7% had eczema (see Fig. 1).

Seasonal rhinitis and rhinoconjunctivitis in the absence of other signs of respiratory infection are strong indicators of IgE-mediated allergy. Rhinitis as a single entity is less specific than rhinoconjunctivitis, as in addition to allergy it is often triggered by infections, air quality and physical stimuli. This may explain the divergent outcomes for rhinitis when compared with rhinoconjunctivitis. However, the prevalence of symptoms in this study was the same. It is possible that in some subjects nasooocular reflex contributed to the ocular symptoms associated with allergic rhinitis (4). The prevalence of symptoms of allergic rhinitis and conjunctivitis was 17% in this population. In the USA, ocular allergies are estimated to affect 15–20% of the general population (5).

Response to a written questionnaire followed by a subsequent interview of 396 Swedish schoolchildren aged 12–13 years estimated the cumulative prevalence of allergic conjunctivitis of 19.1%.

The prevalence of the combination of allergic conjunctivitis and allergic rhinitis was 17.6% suggesting a co-morbidity of 92% (6).

Patients with allergic rhinitis frequently present with symptoms of allergic conjunctivitis. However, terms such as hay fever or allergic rhinoconjunctivitis have been used and prevalence studies have not been specifically addressed to allergic conjunctivitis. Children with allergic conjunctivitis had other diagnosis in a secondary paediatric outpatient clinic: 97% had allergic rhinitis (7). From a pathophysiological point of view, it may be important to assess the relevance of allergic conjunctivitis for the 'one airway, one disease' concept (7). The prevalence of allergic conjunctivitis is high, as well as its association with other atopic diseases, commonly with allergic rhinitis. Focusing on conjunctivitis could improve the diagnosis of allergic rhinitis. In the ISAAC study, we missed the opportunity to assess the prevalence of conjunctivitis symptoms. If validated questions for ocular symptoms had been included, it could have facilitated the identification of the prevalence of conjunctivitis and its relationship with other allergic diseases.

Both authors declare they have no conflict of interest.

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Gadoteridol-induced anaphylaxis – not a class allergy

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Keywords: gadolinium anaphylaxis; Gadoteridol; polysensitization; skin tests.

The use of gadolinium (Gd) agents for contrast-enhanced Magnetic Resonance Imaging (MRI) has increased rapidly.