Our patient exhibits the symptoms of two different systems by two different routes of exposure of two different forms of rice. The first is ingestion of cooked rice resulted in acute gastrointestinal symptoms. The second is urticaria–angioedema while her mother was sorting rice, possibly caused by inhalation of minute particles of raw rice. Inhalation of foodstuffs in aerosol forms may cause allergic food reactions. Also, inhalant allergens may solely provoke urticaria without associated allergic rhinitis or asthma (6). To our knowledge, however, IgE-mediated allergic symptoms limited to skin following inhalation of food allergens have not been reported to date.

Hacettepe University Faculty of Medicine
Department of Pediatric Allergy & Asthma
Sihhiye 06100 Ankara, Turkey
Tel: +90 312 3051700
Fax: +90 312 3112357
E-mail: b_sekerel@yahoo.com

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Type I sensitization towards patent blue as a cause of anaphylaxis

K. Forschner, A. Kleine-Tebbe, T. Zuberbier, M. Worm*

Key words: anaphylaxis; patent blue; lymphography.

Detection and excision of sentinel lymph nodes is an established technique for early staging and treatment of not only malignant melanoma, but also of other cancers (1, 2).

Patent blue is frequently used for lymphnode mapping.

Allergic reactions to patent blue were firstly reported in the 1960s and 1970s (3, 4). Recently a few cases of anaphylaxis to patent blue after lymph node mapping were published (5–7). We report a 37-year-old female patient with a superficial spreading malignant melanoma who underwent lymph node mapping. The patient was sedated with midazolam (Dormicum®) and received anaesthesia with articain (Xylonest® 1%).

Five minutes after intralymphatic injection of 1 ml patent blue (Guerbet®) the patient developed a generalized urticaria and angiooedema. A few minutes later, the patient became hypotensive (50/40 mmHg) and lost consciousness. The anaphylactic reaction was treated immediately with adrenaline (0.2 mg), prednisone (500 mg) and dimetindenmaleat (8 mg) intravenously and the patient recovered completely within 30 min. The patient's history revealed neither other allergic diseases like atopic dermatitis, allergic rhinitis or allergic asthma nor previous anaphylaxis. Accordingly, the total serum IgE antibodies were normal (19.7 kU/l), specific IgE to latex was negative (>0.35 kU/l) and no specific serum IgE was found regarding the most frequent inhalant allergens (SX1). Also the tryptase level was normal (4.79 μg/l).

Three weeks postoperatively a skin prick test (SPT) was performed. All used drugs were tested. The SPT using articain (1%), diazepam and midazolam was negative. By contrast, a strong positive SPT towards patent blue 1 : 100 was found (Fig. 1). In five control individuals SPT with patent blue (dilution 1 : 100) was negative. These findings indicate a type I allergy towards patent blue in this patient as a cause of the perioperative anaphylaxis.



Figure 1. Positive skin prick test with patent blue at 1 : 100 dilution.

Patent blue is a widely used agent in textile, paper, agriculture industries, cosmetic and medical products. In the past, a frequency of type I sensitization towards patent blue of 2.7% has been reported (8). A recent review revealed adverse reactions to injection of isosulfan blue dye during sentinel lymph node mapping in breast cancer patients in 1.6% of documented allergic reactions ($n = 2392$) (1). Most reactions produced urticaria and pruritus (69%) but only 0.5% of the patients showed hypotensive reactions. As the procedure of sentinel lymphnode biopsy becomes more frequent the risk of an increased incidence of adverse reactions to patent blue may be expected. The value of preoperative performed SPT to rule out preexisting type I sensitization towards patent blue will need to be clarified by prospective controlled studies.

*Department of Dermatology and Allergy
Charité, Humboldt University
Schumannstrasse 20/21
D-10117 Berlin Germany
Tel: 04930450518105
Fax: 04930450518958
E-mail: margitta.worm@charite.de

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Successful fluorescein desensitization

E. Nucera, D. Schiavino, E. Merendino, A. Buonomo, C. Roncallo, E. Pollastrini, C. Lombardo, T. De Pasquale, G. Patriarca*

Key words: allergy; desensitization; fluorescein.

Adverse reactions to fluorescein angiography ranging from local symptoms to anaphylactic shock have been reported in literature (1, 2). Most reactions are generated by nonimmune mechanisms. In some cases an immunological IgE-mediated mechanism is also reported (2, 3). To our knowledge no data on fluorescein desensitization are available in literature.

We report the case of a 66-year-old man suffering from fluorescein allergy who underwent desensitization successfully.

We report the case of a 66-year-old male who experienced oedema of the face and hands after intravenous administration of 2 ml of 20% sodium fluorescein.

The patient was referred to our Allergology Department because he needed to undergo a new fluorescein angiography.

An allergological evaluation (including skin prick and patch tests) with 20% sodium fluorescein was performed. The skin prick test was positive (with a 4-mm wheal) while the patch test was negative. Saline and histamine solutions were used, respectively, as negative and positive controls. Ten healthy control subjects were skin-prick tested with fluorescein and all results were negative. These findings are consistent with the occurrence of an IgE-mediated allergy to fluorescein.

We decided to attempt a desensitization in accordance with the reported protocol (Table 1). After obtaining informed consent, the desensitization was performed by the administration of increasing doses of fluorescein every 30 min by the intravenous route.

Table 1. Desensitization protocol in fluorescein allergy

First day
Dilution 1/100
0.1 ml i.v.
0.2 ml i.v.
0.3 ml i.v.
0.4 ml i.v.
Total dose = 0.01 ml of 20% sodium fluorescein
Second day
Dilution 1/10
0.1 ml i.v.
0.2 ml i.v.
0.3 ml i.v.
0.4 ml i.v.
Pure solution
0.1 ml i.v.
0.2 ml i.v.
0.3 ml i.v.
0.4 ml i.v.
Total dose = 1.1 ml of 20% sodium fluorescein

The treatment began with an initial dose of solution containing 0.1 ml of 20% fluorescein diluted 1 : 100. On the first day, the patient received a cumulative dose of 0.01 ml of 20% fluorescein. On the second day, the desensitizing protocol was successfully completed, reaching the cumulative dose of 1.1 ml of 20% sodium fluorescein. After 3 days, the patient could undergo fluorescein angiography with no side-effects at all.

Although this study has been carried out on only one patient, it provides evidence that in case of an IgE-mediated allergy to fluorescein, a specific hyposensitizing treatment is possible and it should be taken in consideration for those patients who must specifically use this drug.

*Department of Allergology
Policlinico A. Gemelli L.go A. Gemelli 8 00168 Rome
Italy
Tel: +39 (0)6 30154965
Fax: +39 (0)6 3051343
E-mail: allergologia@hotmail.com

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