

Table 1. Baseline biomarkers in AR-only vs AR & AA median [interquartile range]

Parameter	AR-only		AR & AA		P-value
	Median	n	Median	n	
SPT – wheal HDM (mm)	4.5 [4.0–7.0]	7	5.75 [5.0–6.25]	8	0.351
SPT – wheal grass (mm)	7.25 [6.75–8.0]	4	4.75 [4.0–5.0]	8	0.006
SPT – wheal trees (mm)	3 [2.5–4.0]	5	5.5 [5.0–6.0]	5	0.116
Multi-atopy status	3 [2.0–4.0]	10	5 [4.0–6.0]	10	0.017
BsIgE HDM (IU/ml)	5.77 [4.89–25.8]	7	40.25 [20.9–50.9]	8	0.049
BsIgE grass (IU/ml)	21.7 [16.95–39.45]	4	4.74 [1.36–7.38]	8	0.038
BsIgE trees (IU/ml)	2.28 [0.50–4.34]	4	12.02 [3.81–27.1]	4	0.083
NAL ECP (µg/ml)	7.05 [3.5–12.1]	4	3.55 [2.55–7.8]	8	0.394
NAL α2-macroglobulin (ng/ml)	78.75 [37.1–181.9]	10	262.05 [198.3–1083.55]	8	0.076
NAL IgE (IU/ml)	5.25 [4.9–5.48]	10	5.2 [5.0–6.43]	10	0.622
NAL MUC5AC (AU/ml)	42.35 [17.2–61.8]	10	53.1 [21.2–59.4]	10	0.762
NAB eosinophils (%)	1 [1.0–6.0]	9	3 [1.0–34.0]	7	0.216
nNO (ppb)	989.7 [844.5–1346.0]	10	834.5 [719.5–848.9]	9	0.072

AR, allergic rhinitis; AA, allergic asthma; SPT, skin prick test; HDM, house dust mite; NAL, nasal lavage; NAB, nasal brush; nNO, nasal nitric oxide.

ways disease. In addition, in contrast with the previously established correlation between exhaled NO and sputum eosinophils within the lower airways of AA (3), our data point towards a dissociation between baseline values of nNO and NAB eosinophils. Similarly, Hanazawa et al. (6), could not demonstrate any correlation between nNO and eosinophils in NAL in patients with AR. Hence, our findings warrant prospective studies in larger populations including all phenotypes of the allergic airways disease (AR-only, AR & AA and AA-only). Furthermore, our data implicate that proof of efficacy studies with novel treatments in the nose cannot fully predict the situation within the lower airways, and *vice versa*.

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Anaphylaxis reaction to iodixanol during coronary angiography

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Key words: adverse drug reactions; allergy; catheterization; iodinated contrast media; latex.

Allergic reactions during or following cardiac catheterization have been increasing, and its severity has been changeable (from low reactions to anaphylaxis). We present a case with immediate severe life-threatening reaction after first exposure to iodixanol (Visipaque®; GE Healthcare Bio-Sciences, Alcobendas, Spain). We made allergological evaluation for the implicated iodinated contrast media (ICMs), other ICMs and latex. The ICMs skin tests were positive to iodixanol and negative for others. Allergy to ICMs is a possibility that the clinics must consider and skin tests can be a useful diagnostic method.

The patient is a 61-year-old man, former smoker for 10 years of 20 cigarettes/day. We have records of arterial hypertension and ischaemic vascular brain accident and so he received treatment consisting of clopidogrel, valsartan, hydrochlorothiazide and amlodipine. He denies either personal or family cases of atopy. He was admitted to the Cardiology Service for an atypical thoracic pain. It was decided to carry out a cardiac catheterization. Five minutes after administering him Visipaque® (iodixanol), the patient felt heat, generalized pruritus and dyspnoea. Few minutes afterwards, he presented with a cardiac respiratory arrest. Patient was reanimated and moved to the ICU, where he remained for 48 h. He presented with facial, arms and legs swelling during the first 24 h. Previously, the patient had not received any ICMs. No serum tryptase was established.

The usefulness of skin test with ICM in adverse reactions of a possible immunological origin.

Table 1. Skin test results to iodinated contrast medias and latex

	Prick	ID 1/100	ID 1/10
Histamine	8 × 8/25 × 20*	NM	NM
Iodixanol	5 × 5/10 × 10*	NM	NM
Iopamidol	Negative	Negative	Negative
Iobitrol	Negative	Negative	Negative
Iopromida	Negative	Negative	Negative
Ioxaglate de meglumina	Negative	Negative	Negative
Amidotrizoato	Negative	Negative	Negative
Latex	Negative	NM	NM

NM, not made.

*Highest and lowest papule and erythema diameter, respectively, measured in mm.

He was sent to the Allergy Unit, where an allergological study was taken with skin test (prick test and intradermal tests 1/100 and 1/10) to different ICMs, as to iodixanol as to other no involved in the previous reaction. Also, a study of allergy to latex was carried out through prick test with commercial extract and determination of specific serum IgE. Prick test results to iodixanol, twice, were positive. The rest of skin tests were negatives (see Table 1). Total IgE serum level was of 285 U/ml and the determination of specific IgE for latex was negative. In 10 healthy controls, skin tests to iodixanol were taken, with the same methods and concentrations. All cases were negative.

Several studies demonstrated the usefulness of skin tests to ICMs while diagnosing reactions to immediate or delayed sensitivity (1, 2). Notwithstanding, very few cases had been diagnosed with positive skin prick test results (1, 3) and even less the ones that presented selective positivity to the only ICMs, like the case we are referring to. The existence of cross-reactivity among different ICMs is well-known (1, 4). For that reason, and having suspected of an allergy to a ICMs, confirmed by positive skin prick test, more skin tests to other ICMs must be done in order to have an alternative. Despite being negative, we cannot discount absolutely a subsequent tolerance (5). Today, it is recommended that in patients with cases of previous reaction to ICMs, if using ICMs is entirely necessary, the ICMs should be nonionic and with low osmolarity. We ought to have a negative skin test and, having adminis-

tered medicines to him depending on the severity of the reaction previously presented, examine the patient in a hospital with trained personnel in case of a possible severe reaction (1).

We discounted an allergy to latex, because it is known that it produces adverse reactions in patients to whom a cardiac catheterization has been performed (6).

In short, we describe a case in which a patient presented a reaction of severe and selective hypersensitivity to iodixanol, without previous cases of having received any ICMs. We want to communicate this case to remind the usefulness of the allergological studies by ICMs skin tests in patients who present adverse reactions of a possible immunological origin during a cardiac catheterization.

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'Well days' after sublingual immunotherapy with a high-dose 6-grass pollen preparation

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Key words: efficacy; grass pollen; high-dose preparation; sublingual immunotherapy; 'well days'.

Symptom-medication score (SMS) is recommended as the primary efficacy outcome parameter for specific immunotherapy (SIT) (1, 2). A new guideline draft on clinical development of SIT products by the EMEA (2) states

that 'the number of days with symptom control is an alternative approach for combining symptom score and intake of rescue medication. Days with symptom control (or 'well days') are i.e. days without intake of rescue medication and

Increase of 'well days' after 1.5 years with high-dose grass pollen preparation.