NSAIDs manifest their effects through inhibition of COX-1 and COX-2 enzymes. Side effects of NSAIDs such as gastric damage and analgesic intolerance are related to the inhibition of COX-1 while anti-inflammatory, analgesic, and antipyretic actions are due to inhibition of COX-2 [1]. To minimize side effects, a new class of drugs that selectively inhibit COX-2 (including celecoxib, rofecoxib, and valdecoxib) was marketed.

Several authors have shown that selective COX-2 inhibitors can protect the gastric mucosa and are tolerated well by analgesic-intolerant patients [8]. Unfortunately, these drugs had to be withdrawn from the market due to an increased risk of coronary ischemia. However, their widespread use and success during their time on the market has led the pharmaceutical industry to develop newer and safer selective COX-2 inhibitors.

Towards the end of 2006, a new COX-2 inhibitor, lumiracoxib, was marketed for the first time in the United Kingdom and eventually in Turkey in June 2007. However, like some of its predecessors, it was withdrawn in August 2007 due to serious hepatic side effects, including 2 deaths from liver injury. Most patients were taking the 200-mg dose.

We were only able to perform 4 oral challenges with lumiracoxib before the drug was withdrawn, and we observed no reactions in any of the patients, although 2 had previously developed reactions with meloxicam and nimesulide, which are generally found to be safe in analgesic-intolerant patients.

This is the first report on the tolerability of lumiracoxib in analgesic-intolerant patients. If the drug is remarketed after withdrawal, as was the case of nimesulide, this data would be helpful in the management of patients with analgesic intolerance. It would be also be a useful addition to more comprehensive studies on this compound.

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Allergen-Specific IgE to Inhalant and Food Allergens and Total IgE Values in China: Comparison of 2 Commercial Immunoassays

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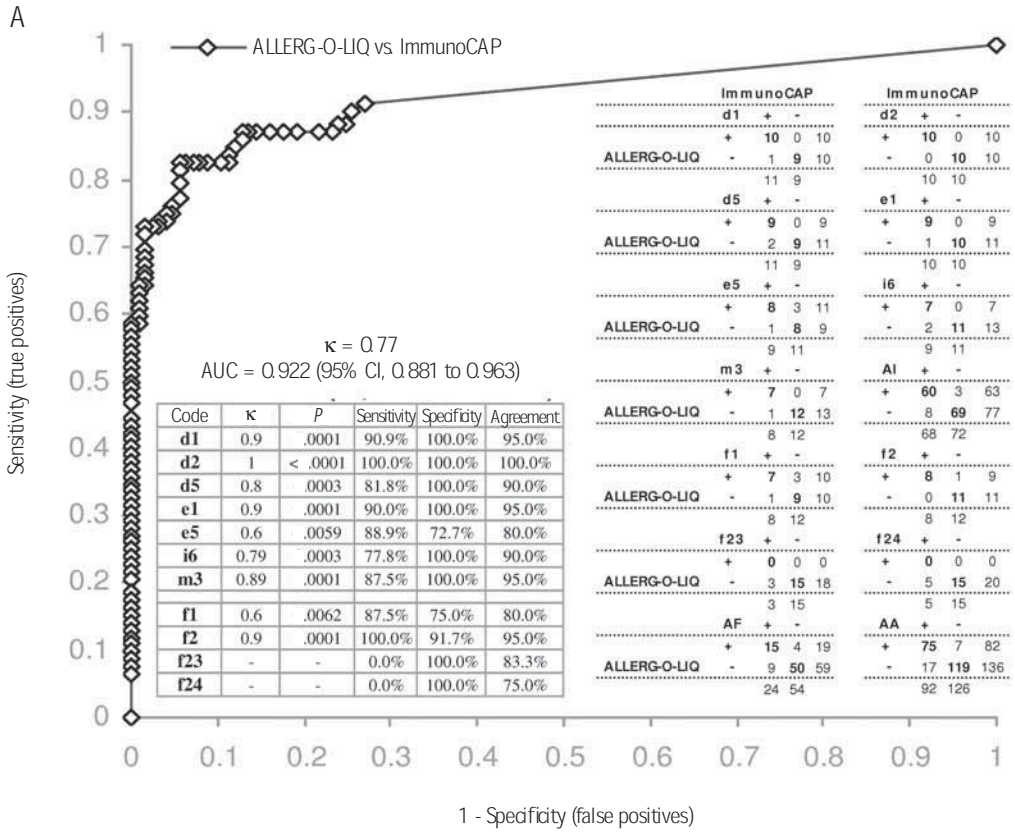
Palabras clave: Alergia. Inmunoglobulina E. Polen. Ácaros de polvo. Alergia alimentaria.

A characteristic feature of type I allergies is the involvement of allergen-specific immunoglobulin E (sIgE); thus, sIgE detection is an important tool in modern allergy diagnostics [1]. Historically, sIgE to various allergens was analyzed by radioallergosorbent test (RAST) using allergen-coupled cellulose paper discs [2,3]. Later on, the enzyme allergosorbent test (EAST) and more recently the reverse enzyme allergosorbent test (REAST) were used for sIgE detection [2,3]. The vast majority of today's test systems use allergens immobilized on a solid support such as cellulose discs or membranes, or so-called carrier polymer (CAP). The ALLERG-O-LIQ System (Dr. Fooke Laboratorien GmbH, Neuss, Germany) follows the REAST protocol using anti-IgE-coated microtiter plates and biotinylated allergens combined with streptavidin-horseradish peroxidase conjugate. State of the art allergy diagnosis includes detailed patient history, physical examination, skin prick testing (SPT), and in vitro tests for sIgE detection based on EAST or REAST protocols [2,3].

To compare the effectiveness of 2 commercially available immunoassays, serum samples were collected at Guangzhou Institute of Respiratory Disease based on the results of sIgE measurement by ImmunoCAP (Phadia, Upsalla, Sweden). Where possible, an equal number of positive and negative samples was included for each allergen. Samples were tested



Code	κ	P	Sensitivity	Specificity	Agreement
d1	0.9	.0001	90.9%	100.0%	95.0%
d2	1	< .0001	100.0%	100.0%	100.0%
d5	0.8	.0003	81.8%	100.0%	90.0%
e1	0.9	.0001	90.0%	100.0%	95.0%
e5	0.6	.0059	88.9%	72.7%	80.0%
i6	0.79	.0003	77.8%	100.0%	90.0%
m3	0.89	.0001	87.5%	100.0%	95.0%
f1	0.6	.0062	87.5%	75.0%	80.0%
f2	0.9	.0001	100.0%	91.7%	95.0%
f23	-	-	0.0%	100.0%	83.3%
f24	-	-	0.0%	100.0%	75.0%

	ImmunoCAP d1 +	-		ImmunoCAP d2 +	-	
+	10	0	10	10	0	10
ALLERG-O-LIQ -	1	9	10	0	10	10
	11	9		10	10	
	d5 +	-		e1 +	-	
+	9	0	9	9	0	9
ALLERG-O-LIQ -	2	9	11	1	10	11
	11	9		10	10	
	e5 +	-		i6 +	-	
+	8	3	11	7	0	7
ALLERG-O-LIQ -	1	8	9	2	11	13
	9	11		9	11	
	m3 +	-		AI +	-	
+	7	0	7	60	3	63
ALLERG-O-LIQ -	1	12	13	8	69	77
	8	12		68	72	
	f1 +	-		f2 +	-	
+	7	3	10	8	1	9
ALLERG-O-LIQ -	1	9	10	0	11	11
	8	12		8	12	
	f23 +	-		f24 +	-	
+	0	0	0	0	0	0
ALLERG-O-LIQ -	3	15	18	5	15	20
	3	15		5	15	
	AF +	-		AA +	-	
+	15	4	19	75	7	82
ALLERG-O-LIQ -	9	50	59	17	119	136
	24	54		92	126	

Figure. Receiver operating characteristic (ROC) analysis and comparative descriptive analysis of the specific immunoglobulin E (sIgE) results. ROC analysis (A) and comparative descriptive analysis (B) show good differentiation between ImmunoCAP-positive and negative samples using the sIgE test of ALLERG-O-LIQ as expressed by the area under the curve (AUC) of 0.922 (95% confidence interval, 0.881 - 0.963) and a qualitative kappa agreement value of 0.77, respectively. Qualitative comparisons are given for each allergen and in groups. In the comparative descriptive analysis (B), values below 0.001 k_AU/L are shown as 0.001 k_AU/L and values above 100 k_AU/L as 100 k_AU/L. Median values are indicated by horizontal lines. AI indicates all inhalant allergens; AF, all foods; AA, all allergens; CI, confidence interval.

for sIgE to 7 inhalant and 4 food allergens and total IgE by ALLERG-O-LIQ and ImmunoCAP. Results were statistically evaluated (Fisher exact test, χ^2 test, and kappa agreement) using the Microsoft Excel plug-in Analyse-it (Version 1.62).

The prevalence of positive test results ranged from 0/20 (f24) to 11/20 (e5) for ALLERG-O-LIQ and from 3/18 (f23) to 11/20 (d1/d5) for ImmunoCAP. The qualitative agreement between the 2 methods was between 75% (f24) and 100% (d2), depending on the allergen. The overall qualitative agreement between results for inhalant (n = 140), food (n = 78), and a combination of all allergens tested (n = 218) was 92.1% ($\kappa = 0.84$), 83.3% ($\kappa = 0.58$), and 89.0% ($\kappa = 0.77$), respectively. Receiver operating characteristic and comparative descriptive analysis showed good discrimination (area under the curve, 0.922) between ImmunoCAP-positive and negative samples when using the results of sIgE testing with ALLERG-O-LIQ. The results including kappa agreement, *P* values, sensitivity, specificity, and agreement (%) are summarized in the Figure. The agreement between the total IgE results (n = 79) was found at $r = 0.87$ ($P < .001$, Pearson correlation coefficient). Mean and median values were 329.7 kU_A/L/121.2 kU_A/L and 570.8 kU_A/L/137.0 kU_A/L for ALLERG-O-LIQ and ImmunoCAP, respectively. Although no single method has been officially designated as the gold standard for IgE detection, the Pharmacia CAP System is in worldwide use and is a de facto standard against which other methods are compared [2,3]. Therefore, most studies that were designed to evaluate the accuracy of sIgE assays used the ImmunoCAP System as the reference method [4]. The ALLERG-O-LIQ and the ImmunoCAP System were first compared in 2004, and as in our study, the agreement between the methods was good to excellent, with higher concordance in the inhalant allergen than in the food allergen group [5]. Despite the fact that they are often promoted as tests for allergy diagnosis, sIgE immunoassays are best regarded as tests for the presence or absence of detectable sIgE. IgE is normally present in the serum, and sIgE can be found in patients with allergic diseases as well as in about 15% of asymptomatic healthy individuals [6-9]. Although the clinical background of sample donors in the present study was not available, based on the good to excellent agreement between ALLERG-O-LIQ and ImmunoCAP for IgE detection we conclude that the ALLERG-O-LIQ System represents a reliable test for quantitative IgE determination.

The results of this study were presented as a poster at the World Allergy Congress; 2007 Dec 2-6; Bangkok, Thailand. M. Mahler acknowledges his work at Dr. Fooke Laboratorien GmbH, the company that developed the ALLERG-O-LIQ System, as a potential conflict of interest.

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Wasp Venom-Specific IgE: Towards a New Decision Threshold?

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Palabras clave: Alergia. CAP. Diagnóstico. Inmunoglobulina E. Avispa.

Immunoglobulin (Ig) E-mediated hypersensitivity to Hymenoptera venom constitutes a potentially life-threatening condition. Venom-specific immunotherapy is highly effective