



# Clinical features of five cases of $\omega$ -5 gliadin hypersensitivity in a Mediterranean Area.

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Wheat is responsible for 60% of cases of food dependent exercise induced anaphylaxis (FDEIA) in Japan. It's incidence in the Mediterranean Area is unknown and only a few series of patients have been reported. The diagnosis of this condition is based on a compatible medical history and the detection of specific IgE for  $\omega$ -5 gliadin.

## METHODS:

We describe the demographic data, clinical characteristics and sensitivity patterns of 5 adult patients with recurrent episodes of urticaria and at least 1 episode of exercise-related anaphylaxis, occurring after the ingestion of wheat. All showed a positive  $\omega$ -5 gliadin IgE immuno CAP test.

## RESULTS:

Patient	Gender	Age	Triggers	ER assistance	Time to diagnosis (months)	Total IgE (kU/L)	$\omega$ -5 gliadin sIgE (kU/L)	wheat sIgE (kU/L)	Basel tryptase
1	M	68	Exercise, NSAIDs	2	12	235	28,3	4,98	4,3
2*	M	60	Stress, fatigue, NSAIDs	3	36	126	8,78	7,38	14,5
3	M	51	Exercise, NSAIDs	>10	144	46,4	5,03	0,51	5,7
4	M	46	Stress, sleep deprivation	1	120	145	6,92	nd	5,4
5*	F	31	Fatigue, NSAIDs	3	84	278	7,17	0,48	3,5

The number of reported episodes, the intensity of the symptoms and the triggers were highly variable. Even though this condition is related to physical exercise, we found that the majority of the episodes were related to more than one trigger factor (lack of sleep, stress or NSAIDs intake), as well as mild physical activity.

Two patients were atopic (all sensitized to Dermatophagoides). Prior to the diagnosis the patients had several emergency care assistances and were diagnosed with recurrent urticaria, idiopathic anaphylaxis or NSAID intolerance. Four of the five patients had a prolonged period of time between the onset of symptoms and diagnosis.

## CONCLUSIONS:

Hypersensitivity to  $\omega$ -5 gliadin may be responsible for recurrent episodes of urticaria, anaphylaxis and FDEIA, all related to wheat ingestion. To our knowledge, this is the largest series described in this region. The diagnosis of this condition may be delayed due to the heterogeneity of the symptoms and triggers, being necessary a high level of diagnostic suspicion.

