

Ani s 10, a new *Anisakis simplex* allergen: Cloning and heterologous expression.

Caballero M.L., Umpierrez A., Moneo I., Rodríguez-Pérez R.

Servicio de Inmunología, Hospital Carlos III, Madrid, Spain

Anisakiasis is a human disease caused by accidental ingestion of larval nematodes belonging to the Anisakidae family. Anisakiasis is often associated with a strong allergic response.

Diagnosis of *A. simplex* allergy is currently carried out by test based on the IgE reactivity to a complete extract of L3 *Anisakis* larvae although the specificity of these diagnostic tests is poor. Improving the specificity of the diagnostic test is possible using purified recombinant allergens.

A new *Anisakis* allergen, named Ani s 10, was detected by immunoscreening an expression cDNA library constructed from L3 *Anisakis simplex* larvae. The new allergen was overproduced in *Escherichia coli*; it is a protein of 212 amino acids and it was localized as a 22kDa protein band in an ethanol fractionated extract from the parasite. Ani s 10 has no homology with any other described protein, and its sequence is composed by seven almost identical repetitions of 29 amino acids each. A total of 30 of 77 *Anisakis* allergic patients (39%) were positive both to rAni s 10 and natural Ani s 10 by immunoblotting. The new allergen could be useful in a component-resolved diagnosis system for *Anisakis* allergy.

Parasitol Int. 2011 Feb 7.