A new form of delayed anaphylaxis has been observed in the United States since 2009 (1), due to IgE antibody directed at a mammalian oligosaccharide epitope, galactose-alpha-1,3-galactose (alpha-gal). Alpha-gal has been associated with two distinct forms of anaphylaxis: immediate-onset anaphylaxis during first exposure to intravenous cetuximab (2) and delayed-onset anaphylaxis 3-6 hours after meat ingestion.

Further studies strongly suggested that tick bites were a cause, if not the only significant cause, of IgE Ab responses to alpha-gal (3). In Australia (4) and in Europe (5) cases of delayed anaphylaxis related to IgE-mediates alpha-gal sensitisation were subsequently observed, although the tick responsible seems to be *Ixodes*, whereas *Amblyomma americanum* seems to be the vector in the USA.

We report the case of a 55-year-old man who, in February and March 2013, experienced two generalised urticaria episodes, the second one with associated angioedema and dyspnea. He was cared for in the Allergy Unit of Castelli Hospital, Verbania, Italy. The patient presented a personal history of hypertension treated with diuretic and sartanic, while no history of allergies or asthma had been reported in the past. Skin-prick tests, performed with commercial extracts for a standard panel of food allergens, resulted negative.

In August 2013 he reported itching, angioedema, dysphasia and dyspnea about six hours after having a meal containing meat. He reported having had several tick bites in months before the reaction. The serum specific IgE showed strong positivity to alpha-gal. This is clearly alpha-gal anaphylaxis with delayed onset after meat ingestion caused by tick bite, confirmed by alpha-gal IgE positivity.

**Key words**
Galactose-alpha-1,3-galactose (alpha-gal); red meat; Food allergy; delayed anaphylaxis

**Summary**
We report the case of a 55-year-old man who went into anaphylactic shock six hours after eating a meal containing meat. He reported having had several tick bites in months before the reaction. The serum specific IgE showed strong positivity to alpha-gal. This is clearly alpha-gal anaphylaxis with delayed onset after meat ingestion caused by tick bite, confirmed by alpha-gal IgE positivity.

**Corresponding author**
Ambra Marianna Calamari
Ospedale Castelli
Via Crocetta, 28921 Pallanza (VB), Italy
E-mail: marianna.calamari@libero.it

A.N. Calamari¹, M. Poppa², D. Villalta³, V. Pravettoni⁴

Alpha-gal anaphylaxis: the first case report in Italy

¹ Ospedale Castelli, Via Crocetta, 28921 Pallanza (VB), Italy
² Ambulatorio di Allergologia, Ospedale San Biagio, Domodossola (ASL VCO)
³ Allergologia e Immunologia Clinica, Ospedale S. Maria degli Angeli, Pordenone, Italy
⁴ Department of Internal Medicine, Clinical Allergy and Immunology, IRCCS Foundation Ca‘ Granda Ospedale Maggiore Policlinico, Milan, Italy
tryptase level was normal. The final diagnosis was “idiopathic anaphylaxis” and the epinephrine autoinjector was prescribed. In light of the time span since the meal, the reaction suggested alpha-gal anaphylaxis. In fact, the patient reported several tick bites during the summer as well as the previous summers. So prick-to-prick tests were performed with fresh meats (lamb, pork and beef) and sIgE for pork, beef, chicken and lamb and resulted negative. In conclusion, to our knowledge this is the first reported case of alpha-gal anaphylaxis in Italy.

References