I recently read an interesting article by Valls et al. [1], in which they report a case of anaphylactic shock caused by tick bites. The case was elegantly presented, but I would like to draw the authors’ attention to an error in the nomenclature of the tick. One of the principles of the International Code of Zoological Nomenclature (ICZN) is that the name of each taxon must be unique (principle of homonymy). The correct spelling of the tick species name they referred to is Rhipicephalus sanguineus (ending in -neous) instead of Rhipicephalus sanguineous (ending in -neus). The species epithet sanguineus has been used elsewhere, but it is not valid [2].

_Rh sanguineus_ (Rh being the abbreviated form _Rhipicephalus_, to differentiate from _R_, the abbreviated form of _Rickettsia_), which is commonly called the brown dog tick or the kennel tick, belongs to a group (or complex) of approximately 10 closely related species [3]. Adult ticks belonging to the _Rh sanguineus_ group are almost morphologically indistinguishable, for example, _Rh sanguineus sensu stricto_ and _Rh turanicus_. In fact, the identification of ticks belonging to the _Rh sanguineus_ group on a morphological basis is not an easy task. In northeastern Spain, for instance, 4 _Rhipicephalus_ species are known to occur ( _Rh sanguineus sensu stricto_ , _Rh turanicus_ , _Rh bursa_ , and _Rh pusillus_) [4] and this may cause confusion, even among specialists. Thus, it would be very useful for the reader if Valls et al could provide further information about tick collection and identification. When species identification is doubtful, the use of the term _Rh sanguineus_-group ticks would be more appropriate [5].

Similarly, Valls et al. could give more details about the ticks they used in their assays. Were they adults, nymphs, or larvae? Were they male or female? If female, were they nonengorged, partially engorged, or completely engorged? As these factors can affect protein expression in the tick midgut and salivary glands [6], this information is quite relevant and should be provided.

As Valls et al. [1] said, _Rh sanguineus_ ticks are known vectors of many pathogens infecting dogs. Just as important, _Rh sanguineus_ ticks have also been implicated in the transmission of major pathogens to human beings. In the Mediterranean region, _Rh sanguineus_ ticks are considered to be the main vectors of _Rickettsia conorii_, the etiological agent of Mediterranean spotted fever. In Arizona, _Rh sanguineus_ ticks have recently been implicated in the transmission of _Rickettsia rickettsii_, the etiological agent of Rocky Mountain spotted fever [7].

Allergy to tick bites is relatively sporadic [8], considering the immeasurable number of individuals exposed to ticks worldwide every day. The report of Valls et al. [1] points to the possible risk of human exposure to tick-borne pathogens in the region where the patient is from.

**References**

Species Identification of *Rhipicephalus sanguineus*

A Valls

*Department of Allergy, Hospital Universitario La Paz, Madrid, Spain*

I am very grateful to F Dantas-Torres for the enriching comments. With respect to the identification of the ticks, these were provided by the patient, a goatherd who collected them from his own goats, with which he worked daily [1].

The identification of the species involved in the patient’s anaphylactic reaction was based on known morphological criteria, bearing in mind the difficulties in identifying ticks belonging to the *Rhipicephalus sanguineus* group, which are almost morphologically indistinguishable, as mentioned by F Dantas-Torres. The collected ticks were obtained from central Spain. The geographic source and the animals affected (goats) helped us with our final species identification.

The ticks used for protein extraction were all adults, but the gender was not identified. To date, no relevance has been given to role of gender [2-4] in possible allergic reactions by ticks, although it would make for interesting studies in the future.

**References**


Manuscript received January 15, 2008; accepted for publication January 28, 2008.

**Ana Valls Sánchez**

Hospital General Universitario La Paz
Paseo de la Castellana, 261
28046 Madrid, Spain
E-mail:vallsana@hotmail.com