

## EYELID TICK BITE

### PICADURA PALPEBRAL POR GARRAPATA

SANTOS-BUESO E<sup>1</sup>, CALVO-GONZÁLEZ C<sup>2</sup>, DÍAZ-VALLE D<sup>1</sup>, BENÍTEZ-DEL-CASTILLO JM<sup>1</sup>,  
GARCÍA-SÁNCHEZ J<sup>1</sup>

#### ABSTRACT

**Case report:** We describe a patient who was bitten on his right upper eyelid by a common canine tick. The tick was impregnated with gasoline prior to being removed.

**Discussion:** Tick bites are uncommon in ophthalmologic practice. They occur more frequently in rural areas, especially in spring and summer. Correct identification of the problem and treatment is essential. The tick needs to be completely removed in order to avoid the embedding of different parts of the insect. Zoonoses, such as rickettsiosis, arbovirus and paralysis due to ticks must be ruled out (*Arch Soc Esp Ophthalmol 2006; 81: 173-176*).

**Key words:** Bite, tick, eyelid, zoonosis.

#### RESUMEN

**Caso clínico:** Se describe el caso de un paciente que sufre picadura de una garrapata común del perro en el párpado superior derecho. Previa impregnación del artrópodo con gasolina, éste fue extraído mediante tracción.

**Discusión:** Las picaduras por garrapata son poco frecuentes en nuestro medio pero que es importante reconocer y tratar adecuadamente. Pueden observarse con más frecuencia en ambientes rurales, especialmente en primavera y verano. Deben extraerse íntegramente para evitar incarceration de restos y descartarse zoonosis como las rickettsiosis, las arbovirosis y la parálisis por garrapata.

**Palabras clave:** Picadura, garrapata, párpado, zoonosis.

#### INTRODUCTION

Canine ticks are slow hematophagous arthropod parasites of which the bite, although uncommon, can be seen more frequently in rural environments and mainly in spring and summer. In these seasons, the incubation period is shorter and ticks appear in greater numbers (1,2).

In this case, the species was identified as *Rhipicephalus sanguineus* (RS). It is widely distributed throughout the world and is the most common species of its gender. Its main hosts are sheep, goats and mainly dogs (1,2).

The importance of these cases lies in the local lesions due to the arthropod's bite and in the transmission of zoonosis, i.e., animal diseases which can

Received: 7/9/05. Accepted: 17/3/06.

Surface and Eye Inflammation Unit. Ophthalmology Service. San Carlos Clinical Hospital. Madrid. Spain.

<sup>1</sup> Ph.D. in Medicine.

<sup>2</sup> Graduate in Medicine.

Presented at the a Ramón Castroviejo Ophthalmology Seminar of the Madrid Complutense University (2005).

Presented at the Annual Meeting of the Madrid Ophthalmological Society (2005).

Correspondence:

Enrique Santos Bueso

Servicio de Oftalmología. USIO. Hospital Clínico San Carlos

Avda. Prof. Martín Lagos, s/n

28040 Madrid

Spain

E-mail: esbueso@hotmail.com

be transmitted to humans, mainly Lyme's disease (LD), Mediterranean botonose fever (MBF), ehrlichiosis and tularemia (1,2,4).

### CLINICAL CASE

A 21-year old woman who came to the practice after noticing a small lesion in the upper right eyelid (URE) which progressively increased in size in four hours. She said she lived in a rural house and had cleaned several farm animals. There was no personal or family history which could be of interest.

The ophthalmological exploration showed a 2-mm reddish insect adhered to the free edge of the URE (fig. 1). Visual acuity in both eyes was of 1 and the rest of the exploration, including eye fundus, was normal.

The treatment consisted in the application of a cotton swab impregnated with liquid gas used for lighters. The progressive relaxation of the arthropod's jaws allowed full extraction with tweezers (figs 2 and 3).

The specimen was sent to the Pathological Anatomy Service to verify that no remains were attached to the eyelid, and to the Veterinary Faculty for identification. The arthropod was identified as RS or common canine tick (fig. 3).

The patient was explored to discard the presence of other ticks and to study any possible local or systemic complication. During six months, serologies were performed to identify the zoonosis transmitted by ticks, with negative results.



Fig. 2: Eyelid after the extraction of the tick with the aid of liquid gas, free of incarcerated remains.

### DISCUSSION

Tick bites are uncommon processes in our environment (3). The following considerations have to be taken into account: it is recommendable to extract the arthropod completely, avoiding the incarceration of remains. In our case, we applied lighter fuel to the tick using a cotton swab to asphyxiate it and thus obtain a progressive release of its hold. Other authors use oil, gasoline or skin extraction in the cases in which the Meibomium glands are involved (3).

The integrity of the specimen must be verified in the Pathological Anatomy Service and the identification of the specimen by professional veterinaries



Fig. 1: Reddish arthropod adhered to the upper right eyelid.

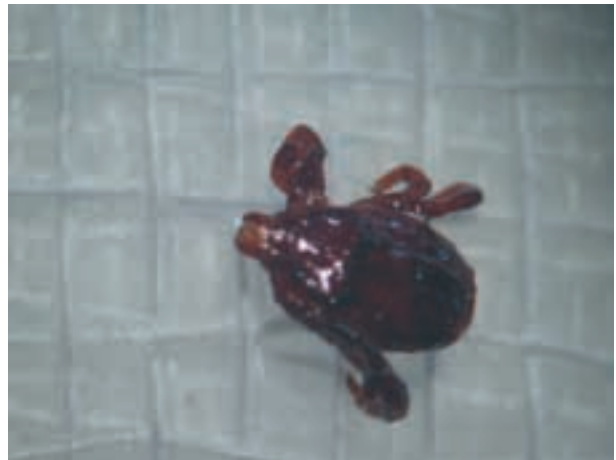


Fig. 3: Arthropod extracted and identified as *Riphycephalus sanguineus* or common canine tick.

is recommendable. In addition, an in-depth exploration of the rest of the skin must be made.

Arthropods intervene in different ways in several human diseases because they act as vectors for bacterial and viric infections, and sometimes intoxicate humans with the toxins they produce. The zoonoses they can transmit are: rickettsiosis such as MBF, ehrlichiosis, tularemia, LD, Q fever, Rocky Mountains fever, arbovirolosis and flaccid motor paralysis. All these diseases are highly uncommon in our environment with the exception of MBF because our country is an endemic region. The most frequent expressions in the eye are conjunctivitis, uveitis, keratitis and vasculitis (4,5). When one of these zoonoses is suspected, these patients must always be referred to an internal medicine service for diagnostic and treatment.

By way of conclusion, we must suspect this condition when faced with lesions of sudden appearance, progressive growth and coming from rural environments. We must emphasise the importance of prevention with the use of repellent, body hygiene

and insecticides, as well as full removal of the insect and effective discarding of potentially transmissible zoonoses.

## REFERENCES

1. Prescott LM, Harley JP, Klein DA. *Microbiología. IV Edición; Madrid: McGraw-Hill; 2003; 805-835.*
2. Weinberg AN. Zoonoses. In: Mandell GL, Bennett JE, Dolin R. *Principles and practice of infectious diseases. VI Edition; Philadelphia: Elseiver Churchill Livingstone; 2005; II: 3630-3636.*
3. Samaha A, Green WR, Traboulsi EI, Ma'luf R. Tick infestation of the eyelid. *Am J Ophthalmol* 1998; 125: 263-264.
4. Kasper DL, Braunwald E, Fanci AS, Hanser SL, Longo DL, Jameson JL. *Harrison. Principios de Medicina Interna. XVI Edición; México, D.F.: McGraw-Hill; 2005; I: 1107-1122.*
5. Rodríguez Ares MT, De Rojas Silva MV, Díaz-Llopis M. *Enfermedades infecciosas. In: Sánchez Salorio M, Díaz-Llopis M, Benítez del Castillo Sánchez JM, Rodríguez Ares MT. Manifestaciones oftalmológicas de las enfermedades generales. LXXVII Ponencia de la Sociedad Española de Oftalmología. Madrid: Sociedad Española de Oftalmología; 2001; 339-375.*