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Short Report

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Infestation of the eyelid with *Rhipicephalus turanicus* (Ixodidae: Rhipicephalidae)

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Abstract

There are few reports of the infestation on the human eyelid with ticks. Ticks such as *Ixodes ovatus* [1], *Ixodes ricinus* [2,3], *Ixodes sp.* [4,5], *Rhipicephalus sanguineus* [6], *Hyalomma* sp. [7], *Amblyomma americanum* [8], and *Dermacentor* sp. [9] isolated from the eyelid of patients, were reported earlier. We present the case of tick attachment on the upper eyelid of a woman in Israel.

Case report

A 45-year-old asymptomatic female presented to our dermatology clinic for an urgent examination of a dark eyelid lesion due to concern for melanoma. On clinical examination, a brown-black mass was noted on the eyelid of the patient (Figure 1), and using a hand-held dermatoscope it was identified as a tick (Figure 2). The tick was extracted using forceps, and later identified as the male of *Rhipicephalus turanicus* [10]. The patient was instructed to report any clinical symptoms, such as fever, rash, headache, chills, and/or myalgia, however she remained asymptomatic for several months following the extraction of the tick.

Discussion

Infestation of the eyelid with ixodid ticks in a rather rare phenomenon: Hara et al. [1] reported the presence of *Ixodes ovatus* on the right superior eyelid of a 30-year-old female; McLeod [2]described *Ixodes ricinus* attached on the eyelid of an 11-month-old child; Singh et al. [4] reported *Ixodes* sp. infestation of the upper eyelid in an 11-year-old girl; Liolios and Goldsmith [11] reported a 40-year-old female in England with a tick of the genus *Ixodes* on her left lower eyelid; Santos-Bueso et al. [6] reported *Rhipicephalus sanguineus* on the right upper eyelid of a 21-year-old female; Samaha et al. [7] described the case of a nymphal stage of *Hyalomma* sp. in the left upper eyelid of a 58-year-old female; Bodé et al. [8] reported the case of an *Amblyomma americanum* larva attached to the conjunctival tissue of the patient; Celebi and Orkun [9] reported the case of a 71-year-old male, whose lower eyelid was infested with a nymphs of *Dermacentor* sp.; Price and Woodward [12] found a *Dermacentor variabilis* tick in the upper left eyelid of a 55-years-old male; Santos et al. [6] reported *R. sanguineus* from the right upper eyelid of a 21-year-old woman; Keklikci et al. [3] described the case of a 3-year-old girl, who was infested with an *I. ricinus* tick on her right upper eyelid.

Figure 1: Tick attached to the left eyelid margin of the patient.

Figure 2: *Rhipicephalus turanicus* male attached to the eyelid margin, as seen by a hand-held dermatoscope (Dermlite ® DL4). Left – non polarized light, right – cross polarized light.

Rhipicephalus turanicus is widespread in Israel and has been found in all geo-climatic regions of the country. It has been found to be infected with *Rickettsia aeschlimannii*, *R. africae*, *R. barbariae*, *R. massiliae*, *Anaplasma* sp., *Ehrlichia* sp., *Coxiella burnetii*, *Babesia microti*, *B. vogeli*, *Hepatozoon felis*, and *Leishmania infantum* [13]. This tick is known to be the vector of *R. massiliae* [14]. *Eldinet al.* [15] reported the case of *R. massiliae* infection after the bite of an unidentified tick on the eyelid, while Holak et al. [16] described Lyme borreliosis in one out of five patients infested with unidentified ticks on their eyelids.

The dermatoscope is an invaluable tool for swiftly identifying ticks and other ectoparasites, including myiasis agents, pubic lice (*Pthirus pubis*), scabies (*Sarcoptes scabiei*), and *Demodex* mites [17].

Ticks embedded close to the eyelid margin should be removed mechanically using a forceps or tweezers, grasping the anterior part of the tick as close as possible to the skin surface, and by avoiding compression of the body. The specimens should be pulled straight upwards, applying steady and firm force, and avoiding rotation of the tick in order to prevent adherence of tick mouthparts in the patient's skin. No disinfectants or heat should be applied to the tick before the removal, as this could cause regurgitation and easier transmission of vector-borne diseases agents. After removal of the tick, attention should be paid as the mouthparts of the tick did not remain in the skin and the area of attachment should be disinfected. Isolated ticks could be conserved in 70% alcohol until they are identified by a taxonomist. Early removal of the tick is of importance as usually ticks use 1-2 days before they transmit unwanted sequalae such as vector-borne diseases [18].

Conclusion

In conclusion and to the best of our knowledge, this is the first report of an eyelid infestation by *R. turanicus*. Prompt and correct removal of the tick from the eyelid could prevent complications such as secondar infections and infection of the patient with tick-borne diseases agents.

References

1. Hara S, Takei Y, Shiga N. A case of tick bite. Jpn J Ophthalmol. 1982; 26: 308–313.
2. McLeod BK. Sheep tick in the eyelid. Br J Ophthalmol. 1986; 70: 75–76.
3. Keklikçi U, Unlü K, Cakmak A, Akdeniz S, Akpolat N. Tick infestation of the eyelid: a case report in a child. Turk J Pediatr. 2009; 51: 172–173.
4. Singh M, Gopalakrishnakone P, Yeoh RL. *Ixodes* tick infestation of the eyelid of a child. Can J Ophthalmol. 2006; 41: 783–784.
5. Jaroudi MO, Mansour AM, Ma'luf R, Meduri A, Tawil A, Younis MH. Large tick (Ixodes) infestation of the upper eyelid presenting as eyelid mass and preseptal cellulitis. Case Rep Ophthalmol. 2019; 10: 403–407.
6. Santos-Bueso E, Calvo-Gonzalez C, Díaz-Valle D, et al. Eyelid tick bite. Arch Soc Esp Oftalmol. 2006; 81: 173–175
7. Samaha A, Green WR, Traboulsi EI, Ma'luf R. Tick infestation of the eyelid. Am J Ophthalmol. 1998; 125: 263–264.
8. Bodé D, Speicher P, Harlan H. A seed tick infestation of the conjunctiva: *Amblyomma americanum* larva. Ann Ophthalmol. 1987; 19: 63–64.
9. Celebi AR, Orkun O. A rare case of tick infestation of the eyelid: case report and literature review. Rev Brasil Oftalol. 2016; 75: 144–146.
10 Walker JB, Keirans JE, Horak IG. The Genus *Rhipicephalus* (Acari, Ixodidae): A Guide to the Brown Ticks of the World. Cambridge University Press, Cambridge, UK. 2000.
11. Liolios V, Goldsmith C. Tick infestation on the lower eyelid: a case report. Cases J. 2009; 2: 9073.
12. Price KM, Woodward JA. Management of tick infestation of the eyelid. Ophthalmic Plast Reconstr Surg. 2009; 25: 328–330.
13. Mumcuoglu KY, Arslan-Akveran G, Aydogdu S, Karasartova D, Koşar A, Savci U, Keskin A, Taylan-Ozkan A. Pathogens in ticks collected in Israel: II. Bacteria and protozoa found in *Rhipicephalus sanguineus sensu* lato and *Rhipicephalus turanicus*. Ticks Tick Borne Dis. 2022; 13: 101986.
14. Matsumoto K, Ogawa M, Brouqui P, Raoult D, Parola P. Transmission of *Rickettsia massiliae* in the tick, *Rhipicephalus turanicus*. Med Vet Entomol. 2005; 19: 263–270.

15. Eldin C, Virgili G, Attard L, Edouard S, Viale P, Raoult D, Parola P. *Rickettsia massiliae* infection after a tick bite on the eyelid. Travel Med Infect Dis. 2018; 26: 66–68.

16. Holak H, Holak N, Huzarska M, Holak S. Tick inoculation in an eyelid region: report on five cases with one complication of the orbital myositis associated with Lyme borreliosis. Klin Oczna. 2006; 108: 220–224.

17. Chauhan P, Jindal R, Errichetti E. Dermoscopy of skin parasitoses, bites and stings: a systematic review of the literature. J Eur Acad Dermatol Venereol. 2022; 36: 1722–1734.

18. Gammons M, Salam G. Tick removal. Am Fam Physician. 2002; 66: 643–646.