

Correspondence

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Tick Infestation of the Upper Eyelid

Dear Editor,

We report a rare case of a tick infestation in the eyelid. A 79-year-old woman was referred to our ophthalmologic clinic with the chief complaint of right upper lid discomfort for two days. Slit lamp examination showed a tick firmly attached to the eyelid margin as well as redness and swelling of the eyelid (Fig. 1A). The uncorrected visual acuity was 20 / 30 in the right and 20 / 20 in the left eye. The anterior segment was otherwise normal. The tick was 2 × 4 mm in size and had 10 legs. The head and mouth

parts of the tick stuck to the eyelid were isolated from the surrounding soft tissues using a 26G needle tip, and the whole tick was gently grasped with tooth forceps and completely removed (Fig. 1B, 1C). The patient was referred to the Department of Infectious Medicine for additional work-up. She did not have fever, diarrhea, or fatigue. The serum antibody tests for Hantaan virus, *Leptospira*, scrub typhus, and severe fever with thrombocytopenia syndrome (SFTS) were all negative. The complete blood count was normal. The patient was prescribed 100 mg of doxycycline for 1 week as prophylaxis. The tick genus was identified as *Ixodes* species. At 1 week of removal, the eyelid healed without any signs of complications (Fig. 1D).

To date, approximately 20 cases of tick infestation of the eyelid have been reported, and only one previous case was reported in South Korea [1]. Elderly patients in rural areas

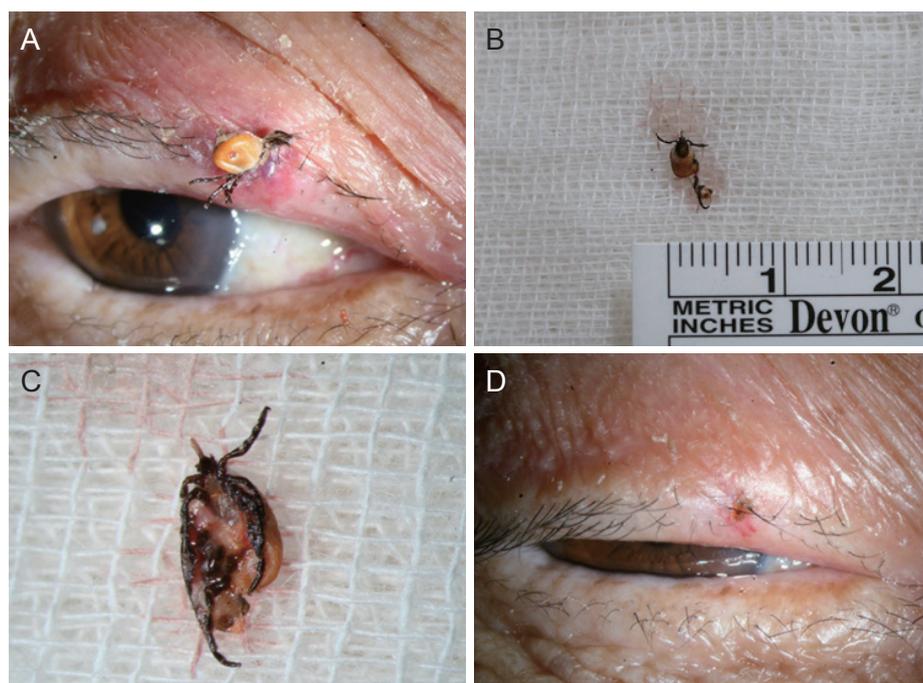


Fig. 1. Clinical photographs of this case (A) Tick infestation on the right upper eyelid margin. (B) A tick after removal (dorsal surface). (C) A tick after removal (ventral surface). (D) Healed eyelid at 1 week after tick removal. Informed consent was obtained from the patient for the publication of the clinical photographs.

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are particularly vulnerable because of higher chances of exposure. The salivary secretions of ticks contain anesthetic agents, anti-hemostatic, anti-inflammatory, and immunomodulatory substances, which can delay the diagnosis [2,3]. As in the present case, the tick infestation of the eyelid can go undetected for several days due to decreased pain that is unproportioned to the deep tissue invasion [2]. A forceful removal with forceps may increase the risk of release of toxins from the stressed tick or retained tick mouthparts [1,3]. Remnant body parts of the tick can lead to granuloma or abscess formation [2]. Therefore, en bloc resection with punch biopsy has been recommended because of the possibility of incomplete removal [1-3]. However, this method is invasive and cosmetically less satisfactory. In this case, the simple removal of tick was considered possible as the patient had no pain due to anesthetic agents secreted by the tick. Simple removal with isolation of the tick using a 26G needle can be a less invasive alternative method to en bloc resection, and it can be easily performed in the office without losing eyelid tissue. Ticks are well-known vectors in the transmission of infectious diseases, such as Lyme disease, Leptospira, scrub typhus, and SFTS. Annually, about 40 to 80 cases of SFTS have been reported in South Korea since 2013, with a mortality rate of 32.6% [4]. Therefore, general evaluation of tick bites is also highly suggested.

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Conflict of Interest

No potential conflicts of interest relevant to this article were reported

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