

## A Case report of western rabbit (*Lepus europaeus*) infestation to *Cheyletiella parasitivorax* in Isfahan

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### Abstract

*Cheyletiella* mites live on the skin, causing irritation and itchiness. A distinguishing feature of this mite species are the large, claw-like mouthparts. Though humans are not a natural host for this parasite, *Cheyletiella* mites can live on humans for a while, causing an itchy rash. In one case, the referral of a rabbit to a clinic in Isfahan, which was detected by microscopic examination of the lesion site, was observed in the *Cheyletiella parasitivorax* parasite. In this study, in addition to the rabbit, all family members who kept the rabbit at home had inflammation and itching of the skin, especially in the lower parts of the hands. Considering that this parasite in humans can cause itching, attention to this parasite is important. The case is the first report in the Isfahan region. It is also the first to be reported in wild rabbits in Iran. Since the prevalence of this infection in Iran has not been studied, the present report can be of great importance.

**Key words:** *Lepus europaeus*, *Cheyletiella parasitivorax*, Isfahan

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## References

- Acevedo P. (1990). Ectoparasites of wild rabbits (*Oryctolagus cuniculus*) from the Juan Fernandez archipelago]. *Bol Chil Parasitol.* 45(1-2):29–31.
- Angarano DW, Parish LC. (1994). Comparative dermatology: parasitic disorders. *Clin Dermatol.* 12(4):543–50.
- Beck W, Pfister K. (2006). Mites as a cause of zoonoses in human beings. *Wien Klin Wochenschr.* 118(19-20 Suppl 3):27–32.
- Dobrosavljevic DD, Popovic ND, Radovanovic SS. (2007). Systemic manifestations of *Cheyletiella* infestation in man. *Int J Dermatol.* 2007; 46(4):397–9.
- d'Ovidio D, Santoro D. (2015). Survey of zoonotic dermatoses in client-owned exotic pet mammals in southern Italy. *Zoonoses Public Health.* 62(2):100–4. doi: 10.1111/zph.12100.
- Frank R, Kuhn T, Mehlhorn H, Rueckert S, Pham D, Klimpel S. (2013). Parasites of wild rabbits (*Oryctolagus cuniculus*) from an urban area in Germany, in relation to worldwide results. *Parasitol Res.* 112(12):4255–66. doi: 10.1007/s00436-013-3617-7.
- Golezardy, H. Nehmatollahy, A. (1999). A case report of *Cheyletiella yasgori* mite infection on a dog in East Azerbaijan province. *Journal of veterinary research.* 54(3):45–47.
- Ken KM, Shockman SC, Sirichotiratana M, Lent MP, Wilson ML. (2014). Dermatoses associated with mites other than *Sarcoptes*. *Semin Cutan Med Surg.* 33(3):110–5.
- Lefkaditis MA, Sossidou AV, Panorias AH, Koukeri SE, Pastiu AI, Athanasiou LV. (2015). Urban stray cats infested by ectoparasites with zoonotic potential in Greece. *Parasitol Res.* 114(10):3931–4. doi: 10.1007/s00436-015-4688-4.
- Overgaauw PAM, Avermaete KHAV, Mertens CARM, Meijer M, Schoemaker NJ. (2017). Prevalence and zoonotic risks of *Trichophyton mentagrophytes* and *Cheyletiella* spp. in guinea pigs and rabbits in Dutch pet shops. *Vet Microbiol.* 205:106–109. doi: 10.1016/j.vetmic.2017.05.008.
- Paradis M. (1998). Mite dermatitis caused by *Cheyletiella blakei*. *J Am Acad Dermatol.* 38(6 Pt 1):1014–5.
- Patton NM, Hagen KW, Gorham JR, Flatt RE. (2008). *Domestic Rabbits: Diseases and Parasites*. Washington: Book: A Pacific Northwest Extension Publication Oregon: Idaho Washington; <https://catalog.extension.oregonstate.edu>
- Reynolds HH, Elston DM. (2017). What's Eating You? *Cheyletiella* Mites. *Cutis.* 99(5):335–6.
- Shamsi, M. Bahrami, A.M. (2009). *Comprehensive of arthropoda in veterinary*. Published by Ilam University. 158-160.
- Skirnisson K, Olafsson JH, Finnsdottir H. (1997). [Dermatitis in cats and humans caused by *Cheyletiella* mites reported in Iceland]. *Laeknabladid.* 83(1):30–4.
- Wagner R, Stallmeister N. (2000). *Cheyletiella* dermatitis in humans, dogs and cats. *Br J Dermatol.* 143(5):1110–2.