

A new sign with UV dermoscope in the diagnosis of scabies: Ball sign

To the Editor:

Scabies has been increasing around the world recently. In our daily practice, a significant portion of our outpatients consists of scabies. Increasing cases in Turkey, Germany, Croatia, and many countries in the last 5 years have been reported and attention has been drawn to the outbreak of scabies.¹⁻³ Diagnostic methods need to be developed and diversified in order to effectively combat these increasing cases. Detection of the parasite is the most valuable approach in terms of diagnosis and treatment follow-up. Although the diagnosis is usually easy with typical sites of involvement and anamnesis, additional diagnostic methods are needed. Microscopy and dermoscopy are among these methods. When looking at the cilia with dermoscopy, an image that corresponds to the mouth and front legs of the parasite, which is defined as the delta sign, can be detected. Depending on the position of the parasite, we can sometimes see a clear delta sign, but sometimes we can only see the reflection of the mite in the form of a brown spot instead of the delta sign. In addition, when the parasite is deeper, we may not see the delta sign. In this case, we may not be able to view the parasite dermoscopically. *Sarcoptes scabiei var hominis* mite gives a bright reflex under ultraviolet (UV) light.⁴ With the introduction of UV dermoscopy, we have defined a diagnostic method that is more specific than the delta sign and will not leave the clinician in doubt. At this point, we would like to share a new sign that can help us with diagnosis: the ball sign.

We used the recently introduced UV dermoscopy device to obtain this mark. The UV dermoscopy device is a combined dermoscopy device with both polarized dermoscopy and UV light features. When looking at the tunnel with UV mode in scabies patients, the contents of the tunnel and the mite itself give a bright reflex. In this way, skin appendages such as squam, which may prevent us from seeing the parasite, are excluded and only the parasite reflects. Except for the area that we see as the delta sign in the polarized dermoscope, we can see the entire parasite in the UV dermoscope, resembling a ball. In this way, we use a more effective imaging method during both diagnosis and treatment control. When the mite cannot be seen clearly under polarized mode in the suspicious area, we can switch to UV mode and make use of the mite's reflex to clarify the diagnosis. While we can

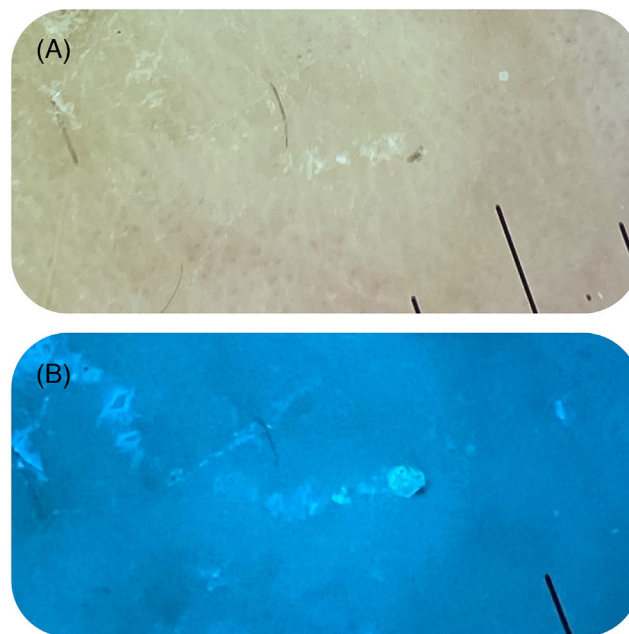


FIGURE 1 (A) View of the tunnel under polarized dermoscope. (B) View of the tunnel under the ultraviolet dermoscope.

see the delta sign in the polarized mode in Figure 1A, we can see the entire parasite in Figure 1B when we turn on the UV mode: the ball sign.

UV dermoscopy is a combined dermoscopy device that can provide 365 nm UV illumination. This device, which has been used in recent years, provides a different imaging method in dermatological diseases. It is stated in the literature that it can be used in the early diagnosis of vitiligo.⁵ Although there are publications showing better visualization of tunnels in patients with scabies, there is no publication yet that shows the parasite clearly. Here, we wanted to share a finding that we call the ball sign, which can actually be considered as a continuation of the delta sign.

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CONFLICT OF INTEREST STATEMENT

The author declares they have no conflicts of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the author upon reasonable request.

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