

Visual Treats in Dermatology

Mites dancing in the dark – A sight to behold

Aravind Sivakumar¹, C. K. Sriram²

¹Department of Dermatology, JIPMER, Puducherry, ²Department of Dermatovenereology, Velammal Medical College and Research Institute, Madurai, Tamil Nadu, India.



***Corresponding author:**

Aravind Sivakumar,
 Department of Dermatology,
 JIPMER, Puducherry, India.
 aravinddermat@gmail.com

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Ectoparasites of the skin include mites which are implicated in various dermatoses. Commonly encountered mites include demodex and scabies mites. While scabies is caused by the mite *Sarcoptes scabiei* var. *hominis* an obligate parasite of humans, Demodex mites survive in human skin as endosymbionts and rarely cause disease if the local milieu is altered by internal or external factors. These mites can be detected by skin scraping or superficial skin biopsy under light microscopy.^[1] The mites can be further highlighted by dark field microscopy by performing the rapid, cost-effective “Coin technique” by which a conventional light microscope can be easily converted to a dark ground microscope.^[2] This makes the mites that appear bright white against a dark background as highlighted here [Figures 1a and b, Videos 1 and 2]. The diagnosis of scabies entails demonstration of either the scabies mite, eggs, or scybala. This can be done using various imaging techniques such as dermoscopy, light microscopy, and fluorescent microscopy. Handheld dermoscopy serves as a good screening tool for the diagnosis of scabies but does not replace the gold standard light microscopy for the demonstration of mites. Further, this technique is superior to fluorescent microscopy as it does not require a

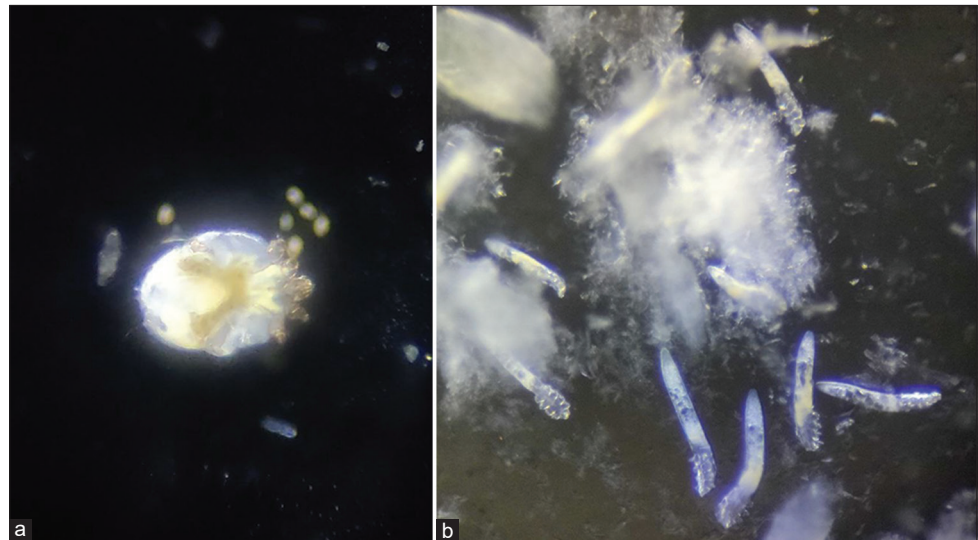
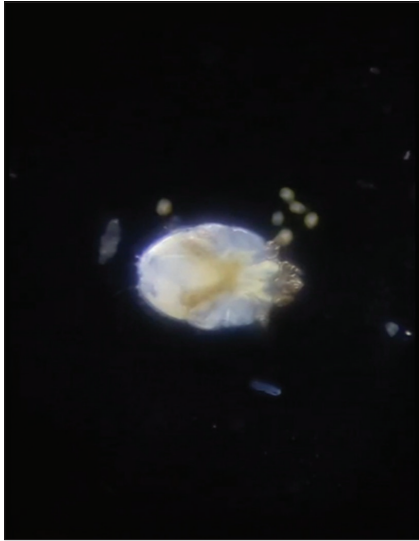


Figure 1: (a) Mineral oil mount demonstrating scabies mite observed under dark field microscopy (×100 magnification). (b) Skin surface biopsy demonstrating Demodex mite under dark field microscopy (×100 magnification).

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Video 1: Motility of scabies mite as observed under dark field microscopy ($\times 100$ magnification).



Video 2: Motility of demodex mite as observed under dark field microscopy ($\times 100$ magnification).

fluorescent agent and highlights the mite rather than the background like fluorescent microscopy.^[3] This technique can be used to improve the diagnostic sensitivity for these bedside procedures.

Declaration of patient consent

Patient's consent not required as there are no patients in this study.

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Conflicts of interest

There are no conflicts of interest.

Use of artificial intelligence (AI)-assisted technology for manuscript preparation

The authors confirm that there was no use of Artificial Intelligence (AI)-Assisted Technology for assisting in the writing or editing of the manuscript and no images were manipulated using the AI.

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