

# Itchy nodules in an immunocompromised: Dermoscopy at rescue!

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Scabies is a contagious skin infestation caused by the mite *Sarcoptes scabiei var hominis*, an obligate human parasite that spreads by direct skin-to-skin contact. It occurs in hospitals and long-term care facilities. Commonly, it manifests with itchy papules and excoriations in the skin folds and genitalia<sup>[1]</sup>. Dermoscopy assists in the accurate diagnosis of scabies with specific patterns. Here authors describe dermoscopic diagnosis of itchy nodules in an immunocompromised patient.

A 62-year-old male came to Dermatology clinic with complaints of multiple itchy nodular lesions all over the body for 15 days. He was admitted in a hospital with chronic lymphoid leukaemia for chemotherapy from where itchy lesions started. There was no history of similar complaints in the family. Small papular lesions started on the abdomen and progressed as nodules to involve axillae, hands and groin. Cutaneous examination revealed hyperpigmented, flat topped papules and nodules (Figures 1A, 1B).

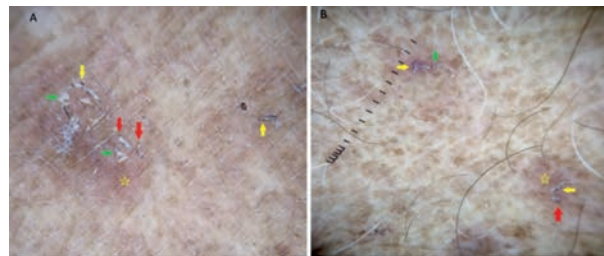


**Figure 1:** (A and B) Clinical image of crusted scabies presenting as papule and nodules. (C) Saline mount of scraping showing mite (blue arrow), eggs (red arrows) and fecal pellets (green arrows). [40x]

Hair, nail, and mucosa were normal. Differentials of prurigo nodularis, insect bite reaction with id reaction, lichenoid drug eruptions and scabies were considered.

Dermoscopy revealed whitish curvilinear structures

with triangular brown structure at one end. Few brown to black globules and dots were noted surmounted on the whitish linear structures (Figure 2A, 2B).



**Figure 2:** (A and B) Dermoscopy from nodular lesions shows whitish curvilinear structures (green arrows), triangular brown structures (red arrows) and brown globules (yellow arrows). Pinkish background (yellow stars) is appreciated.

These features were suggestive of scabies. The skin scrapings revealed mite eggs and fecal pellets confirming diagnosis of scabies (Figure 1C). Patient was given topical permethrin 5% for and topical steroids. Ivermectin in a dose of 12 mg was given on day 1, 2, 8 and 9 was given<sup>[2]</sup>. After the treatment, patient was symptomatically relieved of itching with resolution of clinical lesions (Figure 3A). Disappearance of burrows dermoscopically (Figure 3B) was also noted.



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**Figure 3:** (A) Post-treatment shows resolution of nodular lesions. (B) Dermoscopy revealed disappearance of burrows.

Classical scabies presents with papules, excoriations and burrows. Burrows are specific to scabies and usually found on the wrist, shaft of the penis and finger web spaces. However, clinically it is an arduous effort to recognize burrow<sup>[1]</sup>. Dermoscope comes handy in identifying burrow and it reveals whitish curvilinear structures with brown triangular structures at the end. The triangular structure is referred to as 'hang glider' sign and thought to be specific to scabies<sup>[3]</sup>. Whitish and brown structures correlate with burrow and front part of mite respectively. Brown globules represent fecal pellets and eggs.

In this case scenario, a few pruritic conditions were thought as possible clinical conditions. Prurigo nodularis reveals pearly white areas in starburst pattern with brown striations whereas lichenoid drug eruptions demonstrate dotted and linear vessels with bright white scales on a bluish-pink background. Based on dermoscopic patterns and microscopic features, a diagnosis of crusted scabies in immunocompromised was made and treatment appropriately. Thus, dermoscopy clinched the accurate diagnosis thereby assisted the clinician in the proper management.

To conclude, dermoscopy is advantageous and practical diagnostic adjuvant in dermatology office and promptly confirms the clinical diagnosis. Here it came to rescue and played an important role in the proper management.

## References

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