

Answer to Clinical Image - 1

Answer 01:

Figure-01: A diffuse, hyperpigmented, flat patch over the tip, nasal bridge and the alae of the nose with brown to black discoloration.

Figure-02: Faded brownish pigmented macules over the tip and thenasal bridge.

Answer 02:

Chik sign of Chikungunya / Brownie nose

Answer 03:

Convalescent phase of Chikungunya virus infection

Answer 04:

- Post-inflammatory hyperpigmentation leads to melanocyte stimulation
- Photosensitivity
- The Chikungunya virus may directly affect melanocyte activity or induce dermal inflammation that alters pigmentation.

Answer 05:

Treatment is mainly reassurance and photoprotection. The pigmentation is self-limiting, but topical depigmenting agents (hydroquinone, azelaic acid, tretinoin) and sunscreen may be used if persistent.

Discussion:

Chikungunya, transmitted by *Aedes* mosquitoes, manifests with fever, debilitating arthralgia, and various mucocutaneous features. Cutaneous manifestations of Chikungunya include pigmentary changes, maculopapular eruptions, intertriginous aphthae-like lesions, transient nasal erythema, vesicobullous and lichenoid eruptions, exacerbation of preexisting dermatoses, and subungual hemorrhage. Pigmentary changes usually develop one to three weeks after the fever subsides and may present as centrofacial freckle-like macules, diffuse pigmentation over the face, pinna and extremities, flagellate pigmentation on the face and limbs, mucosal pigmentation involving the tongue and palate, melasma-like pigmentation on the face, lichen planus pigmentosus-like lesions over the neck and flexures, periorbital hypermelanosis, and pigmentation of preexisting acne lesions¹.

The characteristic centrofacial post-inflammatory hyperpigmentation, known as the *Chik sign* or *brownie nose*, may persist for up to six months. It is thought to result from increased intraepidermal melanin dispersion or retention triggered by Chikungunya fever².

Studies suggest the Chik sign may act as a clinical marker of severe Chikungunya, with patients showing this facial hyperpigmentation more likely to have prolonged fever, persistent arthralgia, systemic complications, functional disability, and higher hospitalization rates. Although the exact mechanism remains unclear, it may reflect heightened immune activation or viral load burden³. Chik sign is usually asymptomatic and self-limiting but may persist for months; management is mainly conservative with sun protection, moisturizers, and topical depigmenting agents⁴.

Recognition of this sign can help clinicians anticipate prolonged morbidity, guide early rheumatologic intervention, and prioritize close monitoring, particularly in resource-limited endemic settings³.

References:

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2. Chakraborty U, Biswas P, Chandra A, Pal J, Ray AK. Chik sign: post-chikungunya hyperpigmentation. *QJM: An International Journal of Medicine*. 2021 Feb 1;114(2):137-8. <https://doi.org/10.1093/qjmed/hcaa329>
3. Shravya P, Jangam RK, Narayana P, Pakalapati S. Clinical Relevance of the Chik Sign in Chikungunya: A Marker of Disease Severity and Complications. *International Journal of Current Pharmaceutical Review and Research* 2025; 17(5); 1267-1271
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