

An Atlas of Lumps and Bumps, Part 44: Dermatosis Papulosa Nigra

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Photo Essay

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Dermatosis Papulosa Nigra

Dermatosis papulosa nigra is a common, benign epidermal growth characterized by the presence of multiple, asymptomatic, hyperpigmented, round, dome-shaped or flat, papules or macules localized predominately on the face, neck, and upper trunk.¹⁻⁴ This condition occurs predominantly in dark-skinned individuals (Fitzpatrick skin phototypes IV to VI), most commonly affecting people of Asian and African descent.^{1,3-5} The incidence in Black adults is between 10% and 30%.^{3,6} Lesions often begin in adolescence; thereafter the incidence increases with age peaking in the sixth decade.^{4,7,8} The female-to-male ratio is approximately 2:1.^{4,8-10}

The exact etiology is not known. It is believed that dermatosis papulosa nigra is caused by a defect in the nevoid development of the pilosebaceous follicle.⁸ There is a genetic predisposition as there is a positive family history in $\geq 50\%$ of affected individuals.^{2,5,8} As the condition occurs mainly in sun-exposed areas, cumulative ultraviolet exposure play a msajor role in the development of lesions.^{1,4} Activating mutations in *FGFR3* (fibroblast growth factor 3) and *PIK3CA* (encoding for the catalytic p110 subunit of class 1 phosphatidylinositol-4,5-bisphosphate 3-kinase) genes are involved in the pathogenesis of dermatosis papulosa nigra.^{5,9,11} Some authors consider dermatosis papulosa nigra to be a variant of seborrheic keratosis in people with dark skin.^{4,11}

Clinically, dermatosis papulosa nigra presents as multiple, asymptomatic, superficial, black or dark-brown, round, macules or more often papules (**Figure 1**).^{1,3}



Fig. 1. *Dermatosis papulosa nigra presents as multiple, asymptomatic, superficial, black or dark-brown, round, macules or papules.*

Lesions are often symmetrically distributed.¹² In the early stage, the lesions are often minute and smooth-surfaced. Later, they increase in size and number and become roughened and at times verrucous. Some of the lesions may be filiform or pedunculated. The size of individual lesion usually ranges from 1 mm to 5 mm in diameter and 1 mm to 3 mm in elevation.^{1,13} Sites of predilection include the face (predominantly the malar regions), neck, upper trunk, and back in descending order of frequency (**Figure 2**).^{1,3-5,14} They do not tend to group, and rarely, occur in a linear fashion.¹⁵ The lesions do not spontaneously resolve.^{1,4,16}



Fig. 2. *Sites of predilection include the face, neck, upper trunk, and back.*

The diagnosis is mainly clinical. Dermoscopic features include ridges and fissures in a cerebriform pattern, comedo-like openings, and milia-like cysts (**Figure 3**).^{4,17} A biopsy should be considered if the diagnosis is in doubt.



Fig. 3. *Dermoscopic features include ridges and fissures in a cerebriform pattern, comedo-like openings, and milia-like cysts.*

Dermatosis papulosa nigra can be cosmetically disfiguring and may affect interpersonal relationships.¹⁸ In one study, the quality of life of individuals with dermatosis papulosa nigra was moderately affected.⁶ Other complications include mechanical irritation, and less commonly, inflammation, bleeding, pruritus, and pain.^{1,13} The condition is generally benign,

not related to any systemic disease or syndrome, and without any malignant potential.^{1,19} However, an abrupt increase in dermatosis papulosa nigra may be a sign of internal malignancy, notably adenocarcinoma of the colon.²⁰

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EDITOR'S NOTE:

This article is part of a series describing and differentiating dermatologic lumps and bumps. To access previously published articles in the series, visit: <https://www.consultant360.com/resource-center/atlas-lumps-and-bumps>.

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