The best diagnosis is:

a. circumscribed acral hypokeratosis
b. epidermolytic acanthoma
c. porokeratosis
d. squamous cell carcinoma in situ
e. tinea nigra
Circumscribed Acral Hypokeratosis

Circumscribed acral hypokeratosis (CAH) is an idiopathic condition that clinically presents as a solitary, round, depressed plaque with a slightly raised border. It typically affects the palmar aspect of the hand or rarely the sole. Histopathology reveals a broad area of hypokeratosis demarcated by a sharp cutoff from uninvolved acral skin (Figure 1). The border between affected and unaffected stratum corneum often is frayed (Figure 2). The hypokeratotic zone may show compact orthokeratin atop thin zones of parakeratosis as well as hypogranulosis.

Porokeratosis clinically may present similar to CAH with a circumscribed annular plaque and a threadlike raised border. Histologically this raised border corresponds to the cornoid lamella, which is composed of a thin column of parakeratotic cells often at a 45° angle, associated with underlying hypogranulosis and dyskeratotic or vacuolated keratinocytes (Figure 3). In porokeratosis, 2 cornoid lamellae are typically found, whereas in CAH, there is only 1 lamella.
lamellae may flank a central, relatively hypokeratotic area that is histologically similar to CAH.

Both epidermolytic acanthoma and squamous cell carcinoma in situ present as solitary lesions that may exhibit pronounced hyperkeratosis, as is seen at the periphery of CAH lesions. However, epidermolytic acanthoma features vacuolization and clumping of keratohyaline granules in the superficial epidermis (epidermolytic hyperkeratosis) (Figure 4), which is not seen in CAH. Squamous cell carcinoma in situ often demonstrates prominent hyperkeratosis and parakeratosis associated with full-thickness nuclear atypia and disorganization of underlying keratinocytes (Figure 5). Tinea nigra is seen on the palms or soles and shows brown hyphal elements in the superficial layers of a compact hyperkeratotic stratum corneum (Figure 6).

REFERENCES