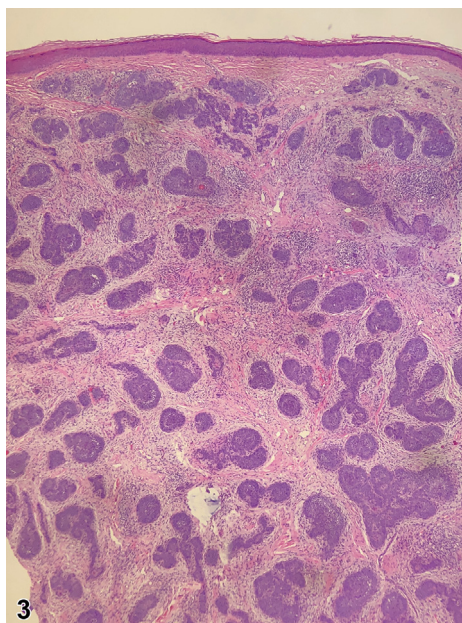
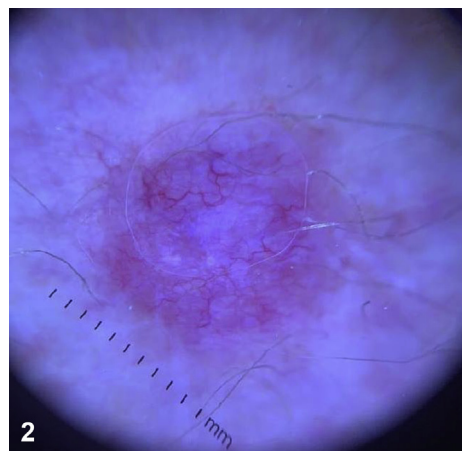


A telangiectatic nodule on the anterior shin



Michael P. Ryan, BS,^a Seena Monjazebe, MD,^b Brandon P. Goodwin, MD,^b and Kathleen T. Kroger, MD^b
Galveston, Texas

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From the School of Medicine^a and the Department of Dermatology,^b University of Texas Medical Branch.

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Correspondence to: Michael P. Ryan, BS, University of Texas Medical Branch, Galveston, Texas 77555-0783. E-mail: mpryan@utmb.edu.

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A 64-year-old man presented to the dermatology clinic for evaluation of a growth on his left anterior lower leg that had been present for 6 months and was slowly growing. The nodule was reported to be tender, but the patient denied a history of bleeding, weight loss, fevers, or chills. The patient had no personal history of skin cancer. Clinical examination found a 1.2- x 1.5-cm dermal nodule with telangiectasias (Fig 1). No lymph nodes were palpable in the groin, axillae, or clavicular regions. Dermoscopy found arborizing telangiectasias in a pearly pink background (Fig 2), and a punch biopsy was performed (Fig 3).

Question 1: Considering clinical presentation, history, and histologic findings, what is your diagnosis?

- A. Trichoblastoma
- B. Basal cell carcinoma (BCC)
- C. Cutaneous B-cell lymphoma (CBCL)
- D. Cutaneous metastasis
- E. Amelanotic melanoma

Answers:

A. Trichoblastoma — Correct. Trichoblastoma is an uncommon benign neoplasm originating from follicular germinative cells and tends to be found in the reticular dermis or subcutaneous tissue. It presents as a solitary skin-colored to brown or blue-black nodule or papule and is often slow growing, symmetric, and well circumscribed with smooth borders. Trichoblastomas can present at any age, but most cases arise after the fourth decade of life and are seen most frequently on the head, neck, and pelvic girdle.^{1,2}

B. BCC — Incorrect. BCC is the key entity on the differential diagnosis for trichoblastoma and often presents as a slow-growing telangiectatic nodule on sun-exposed skin in older patients. However, histology of BCC would show basaloid cells with a connection to the epidermis and peritumoral clefts due to stromal retraction.

C. CBCL Incorrect. CBCLs are a rare group of non-Hodgkin lymphoma that can present as erythematous to purple-brown cutaneous nodules, papules, or plaques; histology would show a nodular pattern of lymphocytic cells.

D. Cutaneous metastasis — Incorrect. Cutaneous metastases have an extensive range of morphologic patterns and clinical presentations. However, the histologic findings in this case are consistent with the diagnosis of trichoblastoma and not a metastatic tumor.

E. Amelanotic melanoma — Incorrect. Amelanotic melanoma could present as an enlarging pink nodule as seen above; however, dermoscopy findings characteristic of amelanotic melanoma such as

polymorphous vascular pattern, milky-red globules, and white crystalline structures are absent³; histology would find a proliferation of severely atypical melanocytes.

Question 2: Which of the following dermoscopic findings is commonly seen in BCC but uncommon in trichoblastoma?

- A. Arborizing vessels
- B. Blue ovoid nests
- C. Ulceration
- D. Crystalline structures (chrysalis)
- E. Blue-grey globules

Answers:

A. Arborizing vessels — Incorrect. The presence of arborizing vessels on dermoscopy is a hallmark of both trichoblastoma (95%) and BCC (86%) and is not likely to be a useful in differentiating between the 2 tumors.⁴

B. Blue ovoid nests — Correct. The clinical and dermoscopic findings for both trichoblastoma and BCC are extraordinarily similar, which presents a diagnostic challenge. Clinically, both tend to present as slow-growing telangiectatic nodules, often on the head and neck in older patients. Even under dermoscopy, BCC and trichoblastoma share many of the same findings such as arborizing vessels and blue-grey globules; however, the finding of blue ovoid nests is frequently seen in BCC (64%) but is uncommon in trichoblastoma (15%). Blue-grey ovoid nests represent large well-defined pigmented tumor nests within the dermis.⁵ Although blue ovoid nests on dermoscopy may favor BCC, they are not exclusive to BCC; thus, biopsy is ultimately needed to differentiate the 2 tumors.⁴

C. Ulceration — Incorrect. Ulceration seen on dermoscopy may be slightly more prevalent in BCC (21%) compared with trichoblastoma (10%); however, it is not a common finding in either tumor.⁴

D. Crystalline structures (chrysalis) — Incorrect. Crystalline or chrysalis structures are white shiny streaks that are seen under polarized light. The

presence of these structures is not common in either trichoblastoma (16%) or BCC (21%).⁴

E. Blue-grey globules — Incorrect. Blue-grey globules on dermoscopy are a common feature of both trichoblastoma (52%) and BCC (71%). Blue-grey globules represent small tumor nests with central pigmentation in the dermis.⁵ Despite being slightly more common in BCC, the high prevalence of blue-grey globules in trichoblastomas limits the utility of using their presence to differentiate between the 2 tumors.⁴

Question 3: For patients with biopsy-proven trichoblastoma, what is the most appropriate next step?

- A.** Management and treatment will vary by case
- B.** Surgical excision
- C.** Clinical monitoring
- D.** Mohs micrographic surgery
- E.** Superficial radiation therapy

Answers:

A. Management and treatment will vary by case — Correct. There is no one correct treatment for all cases of trichoblastoma; management should be determined by patient desires and clinician judgment. Despite being a benign tumor, trichoblastoma has the potential for malignant transformation into trichoblastic carcinoma. Unlike BCC, which rarely ever metastasizes, trichoblastic carcinoma is more aggressive with a much higher metastatic potential and mortality. Because of the possibility for malignant transformation, surgical excision of trichoblastoma is often performed and may sometimes even be necessary for accurate histologic diagnosis.⁶ Although these lesions are frequently excised, clinical monitoring is also an appropriate option for patients who may not desire or be candidates for surgery.

B. Surgical excision in all cases — Incorrect. Although surgical excision is an appropriate and

common treatment, trichoblastoma is a benign tumor, and not all cases have to be removed, especially if the patient does not want treatment.

C. Clinical monitoring in all cases — Incorrect. Although clinical monitoring is an appropriate option, there are several reasons why a patient and clinician might opt to remove trichoblastoma surgically (ie, risk of transformation, cosmetic concern, or to aid histologic evaluation).

D. Mohs micrographic surgery — Incorrect. Trichoblastoma is a benign tumor and Mohs micrographic surgery in most cases would be unnecessary. Most trichoblastomas can be removed adequately with simple surgical excision.

E. Superficial radiation therapy — Incorrect. Trichoblastoma is a benign tumor that can be treated successfully with excision. Radiation therapy would not be an appropriate method of treating trichoblastomas.

Abbreviations used:

BCC: basal cell carcinoma

CBCL: cutaneous B-cell lymphoma

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