
To claim CME credit, complete this case-based posttest online at <http://www.aad.org/olc>. Note: CME quizzes are available after the first of the month in which the article is published. A minimum score of 70% must be achieved to claim CME credit. If you have any questions, please contact the Member Resource Center of the American Academy of Dermatology toll-free at (866) 503-SKIN (7546), (847) 240-1280 (for international members), or by e-mailing mrc@aad.org.

CME examination

Identification No. JA0219

February 2019 issue of the Journal of the American Academy of Dermatology

Cameron MC, Lee E, Hibler B, Barker CA, Mori S, Cordova M, Nehal KS, Rossi AM. *J Am Acad Dermatol* 2019;80:303-317.

Directions for questions 1-4: Choose the single best response.

A 65-year-old man presents with a lesion on his back that had been present for several years. The clinical examination reveals a skin-colored pedunculated papulonodule. A shave biopsy specimen is obtained, and a seasoned dermatopathologist notes that the results show a fibroepithelioma of Pinkus.

1. What was most likely seen on histopathology?
 - a. Large dermal nodules of malignant basaloid keratinocytes, peripheral palisading, and mucoid stroma with plump spindle cells
 - b. Multiple collections of delicate strands of epidermal basaloid keratinocytes arranged in a reticular pattern within a spindle cell stroma
 - c. A well-circumscribed tumor of anastomosing strands of basaloid cells and scattered small infundibulum-like cystic structures
 - d. Multiple lobular foci of basaloid palisading keratinocyte tumors attached superficially to epidermis with a myxoid stroma and band-like lichenoid infiltrate
 - e. Thin cords with angulated ends of few basaloid keratinocytes imbedded in a sclerotic collagenous stroma

A 72-year-old woman who is a molecular biologist has a history of several basal cell carcinomas (BCCs) and is diagnosed with a new nodular BCC on the cheek. She is curious about the carcinogenesis of her BCC.

2. In answering her questions, which of the following statements would be FALSE about BCC carcinogenesis?
 - a. Constitutive activation of Hedgehog signaling pathway plays a large role in BCC carcinogenesis
 - b. Ultraviolet B light-driven mutagenesis plays a predominant role in transforming keratinocyte progenitor cells into BCCs
 - c. Activating mutations of *PTCH1* and *SUFU* contribute to BCC carcinogenesis
 - d. Activating mutations of *SMO* contribute to BCC carcinogenesis
 - e. Sporadic BCCs arise from long-term resident keratinocyte progenitor cells of the interfollicular epidermis and upper infundibulum that undergo mutagenesis

A 26-year-old woman presents to the clinic with a chief complaint of longstanding decreased hair growth of her scalp. The clinical examination reveals hypotrichosis of the scalp and eyebrows as well as lesions on her cheek and back that are concerning for BCC. Numerous facial milia and bilateral acral erythema are also noted. On further interview, the patient reports a longstanding history of decreased sweating and easy “overheating outside.” She is accompanied by her 6-year-old who also has similar facial milia, acral erythema, and hypotrichosis.

3. What is the most likely diagnosis?
 - a. Nevoid basal cell carcinoma syndrome
 - b. Rothmund–Thomson syndrome
 - c. Bazex-Dupre-Christol syndrome
 - d. Schöpf-Schulz-Passarge syndrome
 - e. Rombo syndrome

A 72-year-old man who is a smoker and who has a history of rheumatoid arthritis presents for surgical treatment for a BCC of the neck. He has a history of ionizing radiation to the neck for a laryngeal squamous cell carcinoma. He also has been on chronic immunosuppressive therapy for a previous renal transplant. Given that this is his third diagnosis of BCC, he is curious as to what previous exposures or medical conditions may have increased his risk for BCC development.

4. Based on previous epidemiologic studies, which of his previous exposures or medical conditions has NOT been shown to increase risk for BCC development?
 - a. Ionizing radiation
 - b. Smoking
 - c. Immunosuppressive therapy for an organ transplant
 - d. Rheumatoid arthritis
 - e. Arsenic-contaminated food and water