For more than two years, a 43-year-old man has had an asymptomatic lesion on his right deltoid area. His primary care provider has repeatedly assured him of its benignancy “because it is flat.” But its slow, steady, horizontal growth concerns the patient, who is otherwise healthy.

He does admit to a significant history of sun exposure, explaining that he burns easily but acquires a tan by summer’s end each year. Several members of his immediate family have had skin cancers removed.

Examination reveals a round, dark macule, measuring 1.1 cm, on the right lateral deltoid area. The lesion has poorly defined borders and a variety of colors—mostly black and brown, with flecks of red and pink. There is no palpable component, and no nodes can be detected in the area.

The rest of his type II skin has abundant evidence of UV overexposure, including solar lentigines and weathering, especially around the neck.

The lesion is anesthetized, removed by deep shave technique, and submitted to pathology. The report shows a superficial, spreading melanoma with a Breslow depth of 0.75 mm. Malignant cells extend to the dermoepidermal junction (Clark level II). Only a few mitotic cells can be seen, with no intravascular invasion or signs of ulceration.

Which of the following statements is false?

a) Most melanomas are raised (nodular).

b) Most melanomas occur on skin usually covered by clothing.

c) Most melanomas do not arise from pre-existing lesions.

d) Most melanomas don’t itch or bleed.

ANSWER

The false statement is that most melanomas are raised (choice “a”), since most melanomas are essentially macular (flat).

DISCUSSION

Misconceptions about melanomas often delay diagnosis, costing lives. In truth, the
majority of melanomas are difficult, if not impossible, to feel on palpation. This is because they arise in the skin, rather than on it.

Malignant melanomas are cancers of melanocytes (the cells that line the basal cell layer). Overexposure to UV sources damages the nuclei of these cells, compromising their ability to repair the damage. This can lead to focally unregulated cell growth.

Initially, this uncontrolled cell replication spreads horizontally. Over time, though, it can grow vertically and penetrate deep enough to invade the vasculature (roughly 1 mm deep), and spread to the liver, lung, or brain. This is why ascertaining the depth of a melanoma is critical for predicting prognosis and determining the extent of additional surgery and search for evidence of metastatic disease.

Melanomas do not typically itch or bleed until they are advanced (if at all). And most arise de novo (as new lesions, rather than pre-existing). So, contrary to popular belief, moles rarely turn into melanomas.

It is also true that approximately 80% of all melanomas arise on skin normally covered by clothing, despite the role of sunlight in the development of melanoma. For reasons not totally understood, the combination of fair, sun-intolerant skin and periodic intense exposure predisposes to skin cancer—clothing notwithstanding.