

Malignant Melanocytic Tumors

9

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Contents

9.1	Lentigo Maligna	69
9.2	Melanoma	72

Abbreviations

Ab	Antibodies
HES	Hematoxylin-eosin-saffron stain
IVCM	In vivo reflectance confocal microscopy

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9.1 Lentigo Maligna

Lentigo maligna occurs in photo-exposed areas. Atypical melanocytes proliferate along the basement membrane without crossing it; lentigo maligna is a melanoma in situ. When melanocytes cross the basement membrane and invade the dermis the tumor is called lentigo maligna melanoma.

Clinically, lentigo maligna (Fig. 9.1) presents as a nonhomogeneous pigmented macule on sun-exposed skin, with irregular contours.

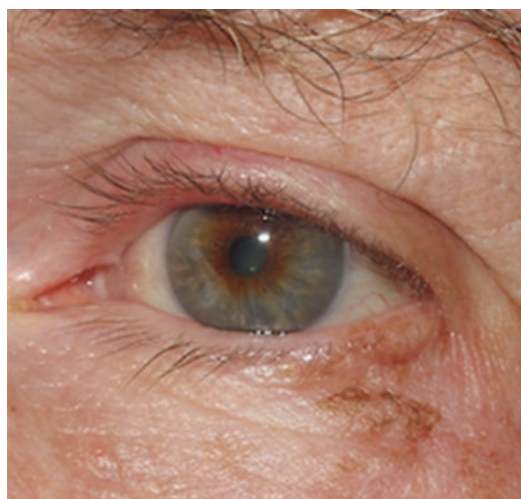


Fig. 9.1 Clinical aspect of actinic lentigo

The IVCM features are as follows (Fig. 9.2a–d):

- Relatively well-preserved epidermis with regular honeycomb pattern (not shown here)

- Atypical roundish and/or dendritic cells (that correspond to large cells of different shapes and sizes) at the dermo-epidermal junction (*orange stars*) and the suprabasal layers of the epidermis (pagetoid cells; *blue arrows*)

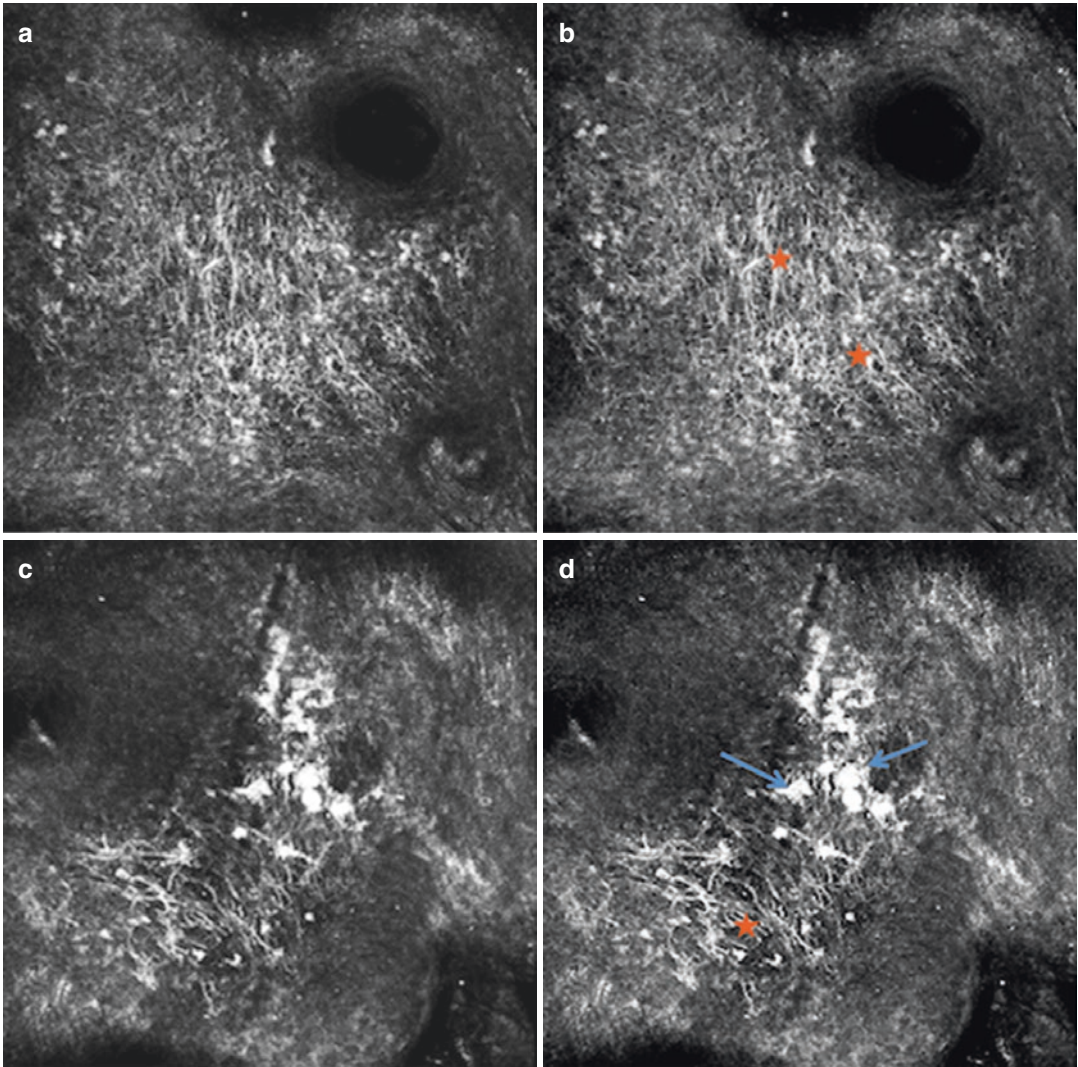


Fig. 9.2 IVCM features of actinic lentigo (a–d)

On optical microscopy the histologic features are as follows (Fig. 9.3e–i):

- At low magnification (e, f), melanocytic proliferation (*red dotted line*) occurs along the basement membrane, without crossing it.

- Melanocytes are marked in red in immunohistochemistry by the anti-Melan-A antibody (g).
- At high magnification (h, i), atypical melanocytes proliferate along the basement membrane in a lentiginous mode (*black circle*). Some nests at the level of the basement membrane are visible (*blue arrows*).

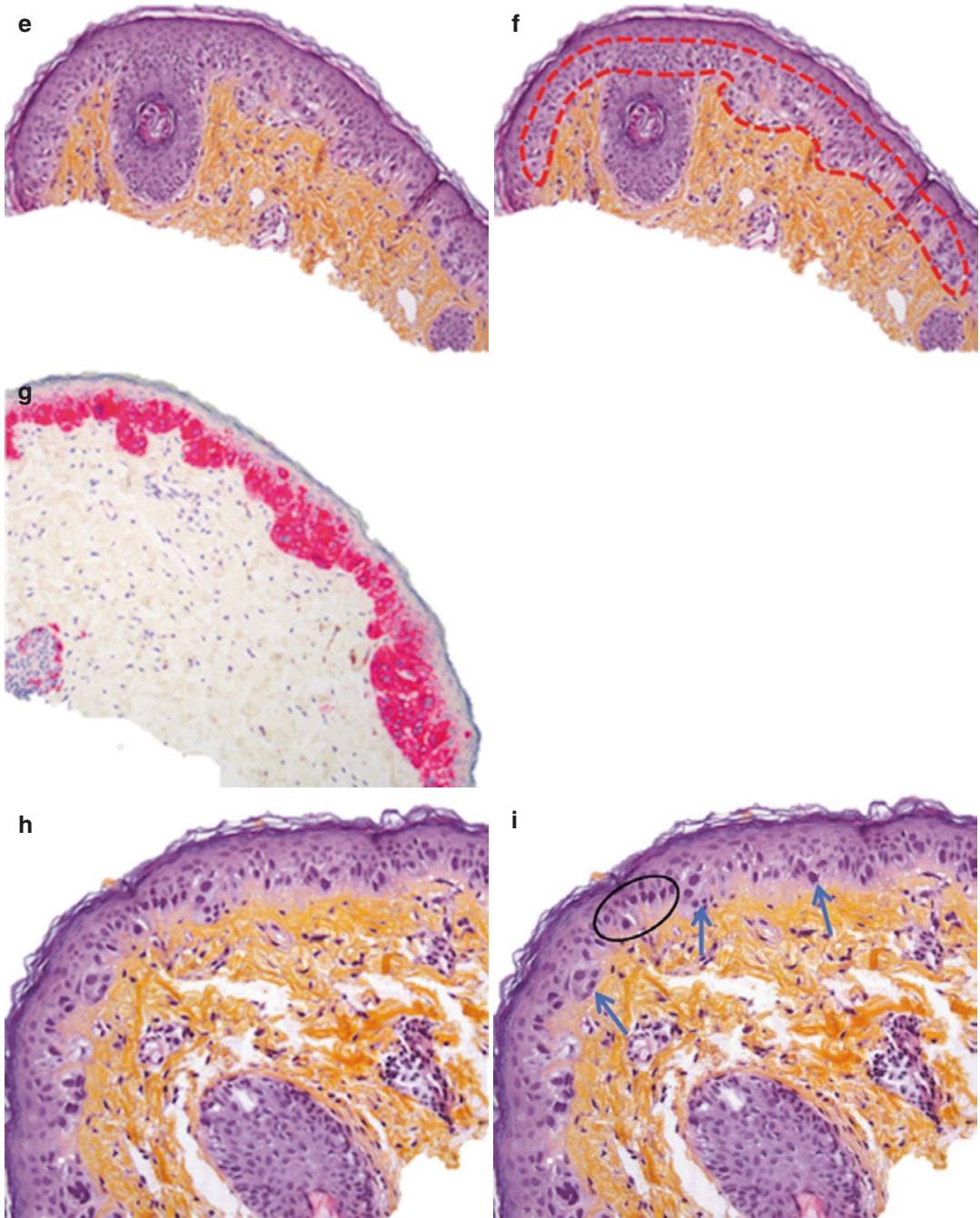


Fig. 9.3 Histological features of actinic lentigo (e–i). (e, f) ×100 HES. (g) ×100 Anti-Melan-A Ab. (h, i) ×200 HES

9.2 Melanoma

Eyelid melanomas represent less than 1% of palpebral malignant tumors. In melanoma, atypical melanocytes are present in the epidermis and dermis. The most frequent histological types of palpebral melanomas are:

- Superficial spreading melanoma (SMM)
- Lentigo malignant melanoma (LMM)

The clinical aspect (Fig. 9.4) of this eyelid melanoma is a heterogeneous and irregular dark brown pigmentation.

The IVC features are as follows (Fig. 9.5a–e):

- Disarranged epithelium (a–c) with large hyperreflective dendritic (*red circle*) and roundish pagetoid cells (*yellow arrows* and *image c*)
- Large hyperreflective polymorphic cells (*orange stars*) in the superficial dermis (d, e) in case of invasive melanoma

On optical microscopy the histologic features are as follows (Fig. 9.6f–k):

- At low magnification (f–i), melanocytic proliferation invades the dermis (*black circle*),

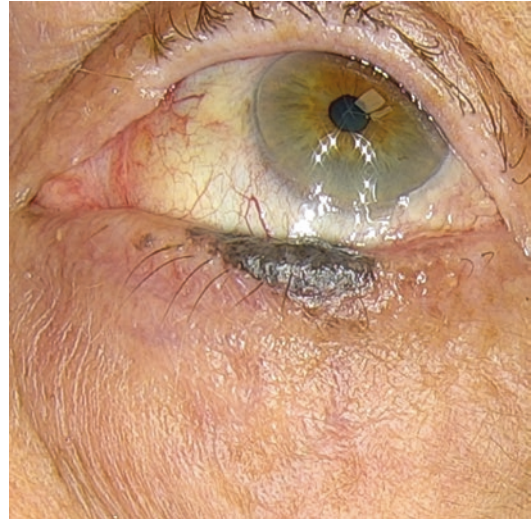


Fig. 9.4 Clinical aspect of eyelid melanoma

and its intraepidermal lateral component looks lentiginous (*blue dotted lines*). Melanocytes are stained in red by anti-Melan-A antibody.

- At high magnification (j, k), the dermal component is composed of melanocytes arranged in nests (*green diamonds*). The intraepidermal lateral component is lentiginous (*blue dotted line*). Some mitoses are visible (*black arrows*).

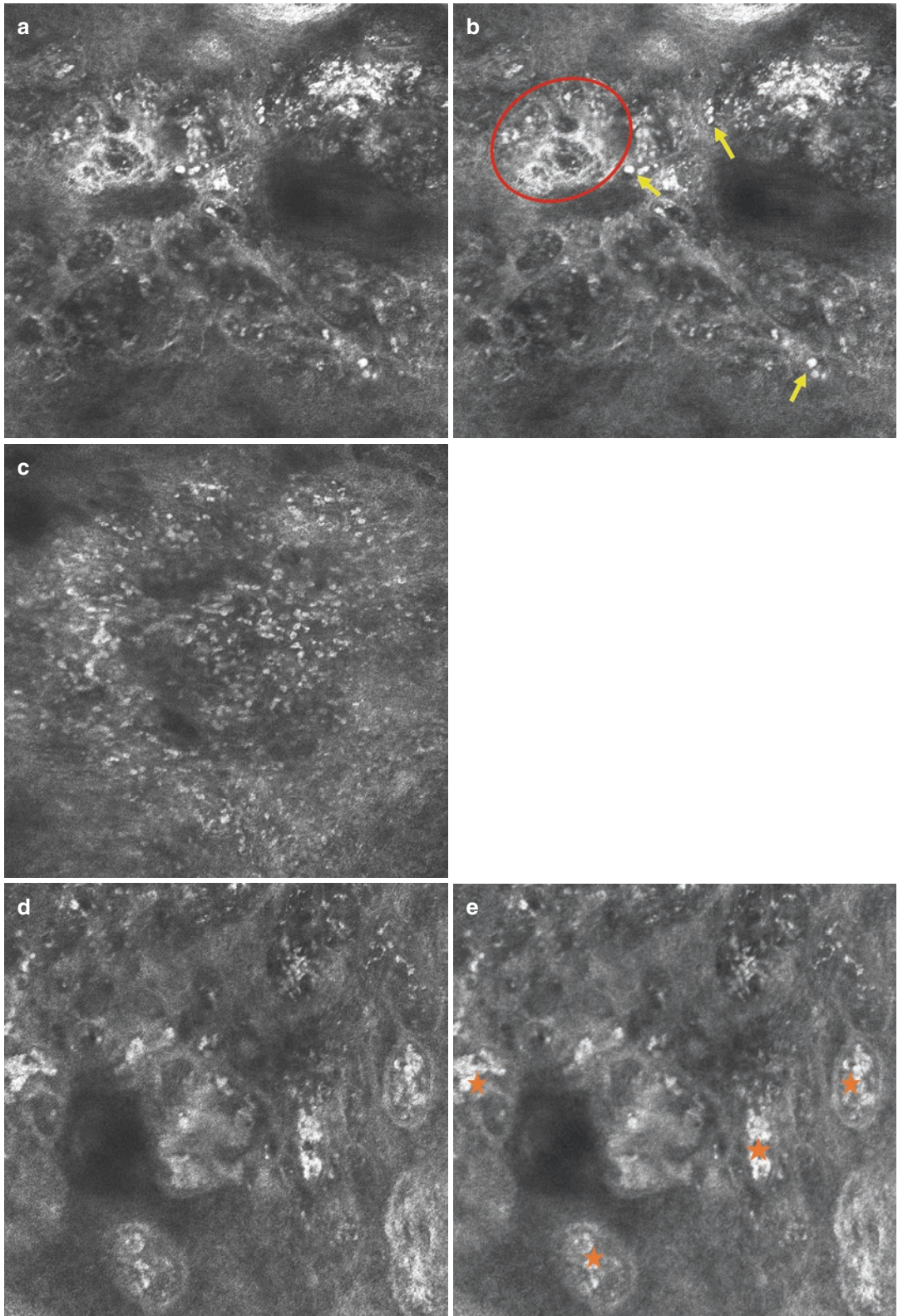


Fig. 9.5 IVCM features of eyelid melanoma (a–e)

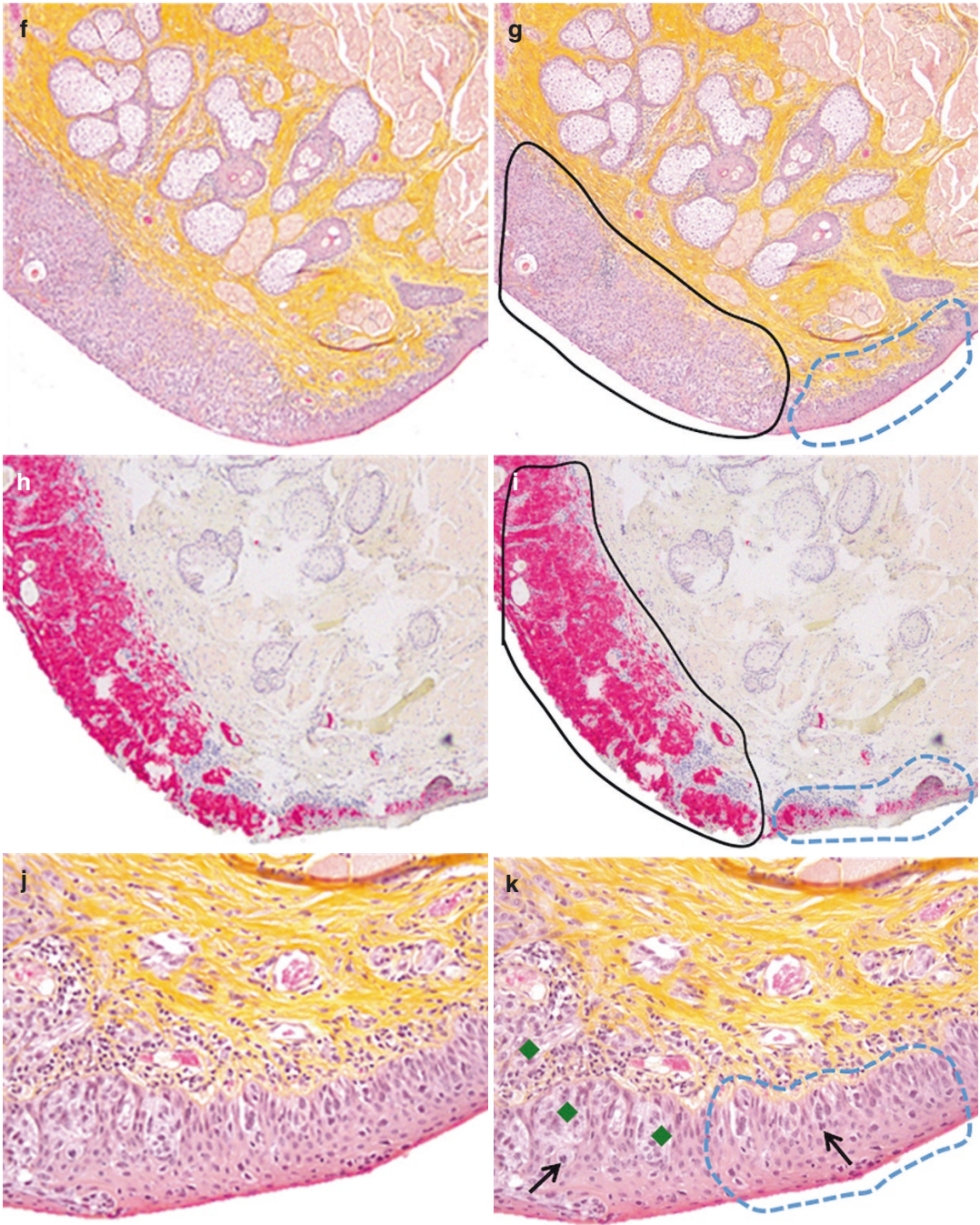


Fig. 9.6 Histological features of eyelid melanoma (f–k). (f, g) ×50 HES. (h, i) ×50 Anti-Melan-A Ab. (j, k) ×200 HES