

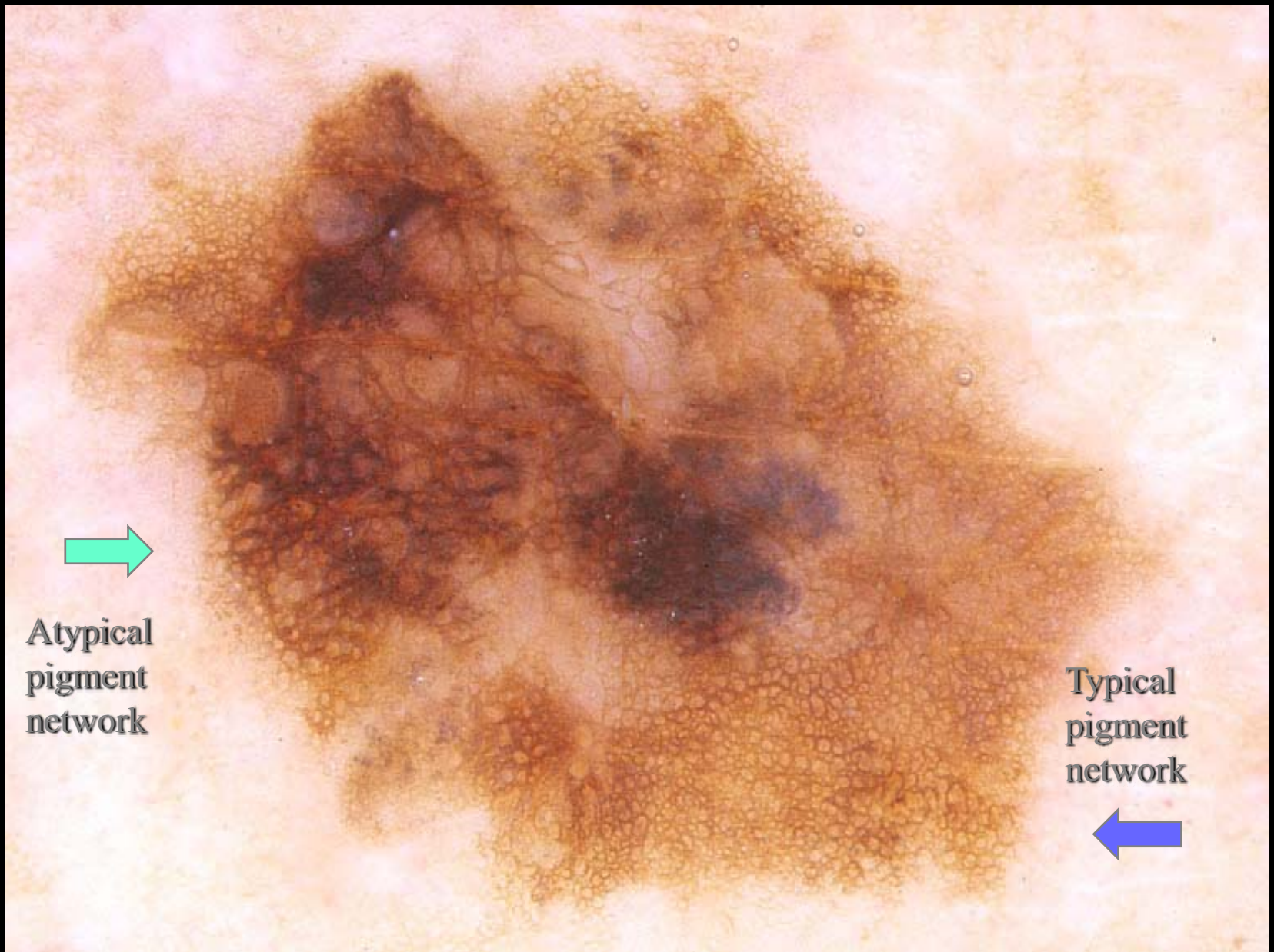
Second Step:  
Pattern Analysis in the  
Diagnosis for  
Melanoma

# Pattern Analysis

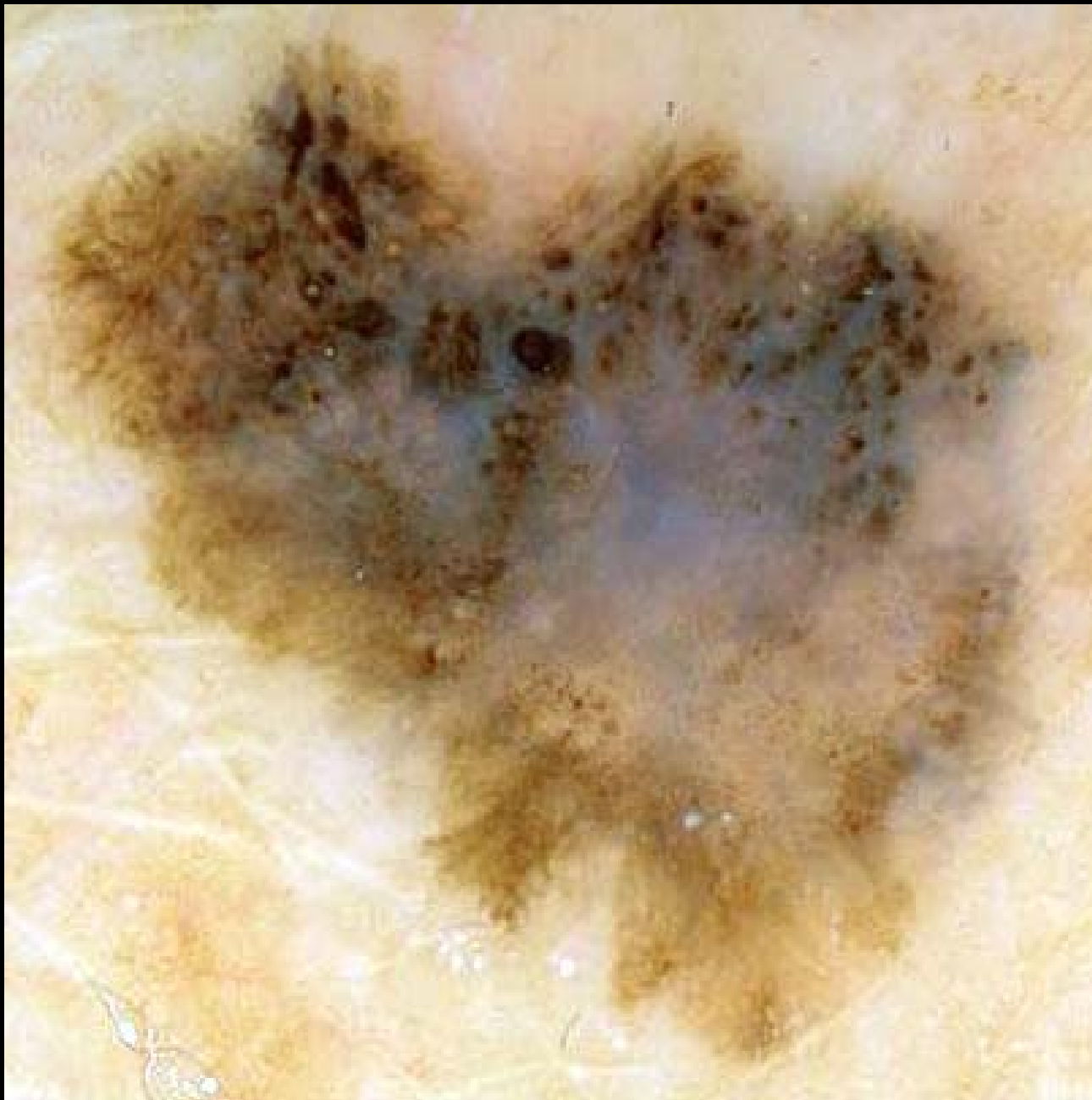
- A single criterion might be present in various diagnostic categories (e.g.: streaks)
- Absence of a specific criterion does not rule out a specific diagnosis (e.g.: whitish veil)
- The final diagnosis is based on the combined assessment of all dermoscopic criteria

# Melanoma-specific Dermoscopic Criteria

- Atypical pigment network
- Irregular dots/ globules
- Irregular streaks
- Blue-whitish veil
- Regression structures
- Dotted and linear irregular vessels



Melanoma in situ arising within a pre-existing melanocytic nevus



Irregular black dots/globules within a melanoma



Streaks at the periphery of a superficial melanoma



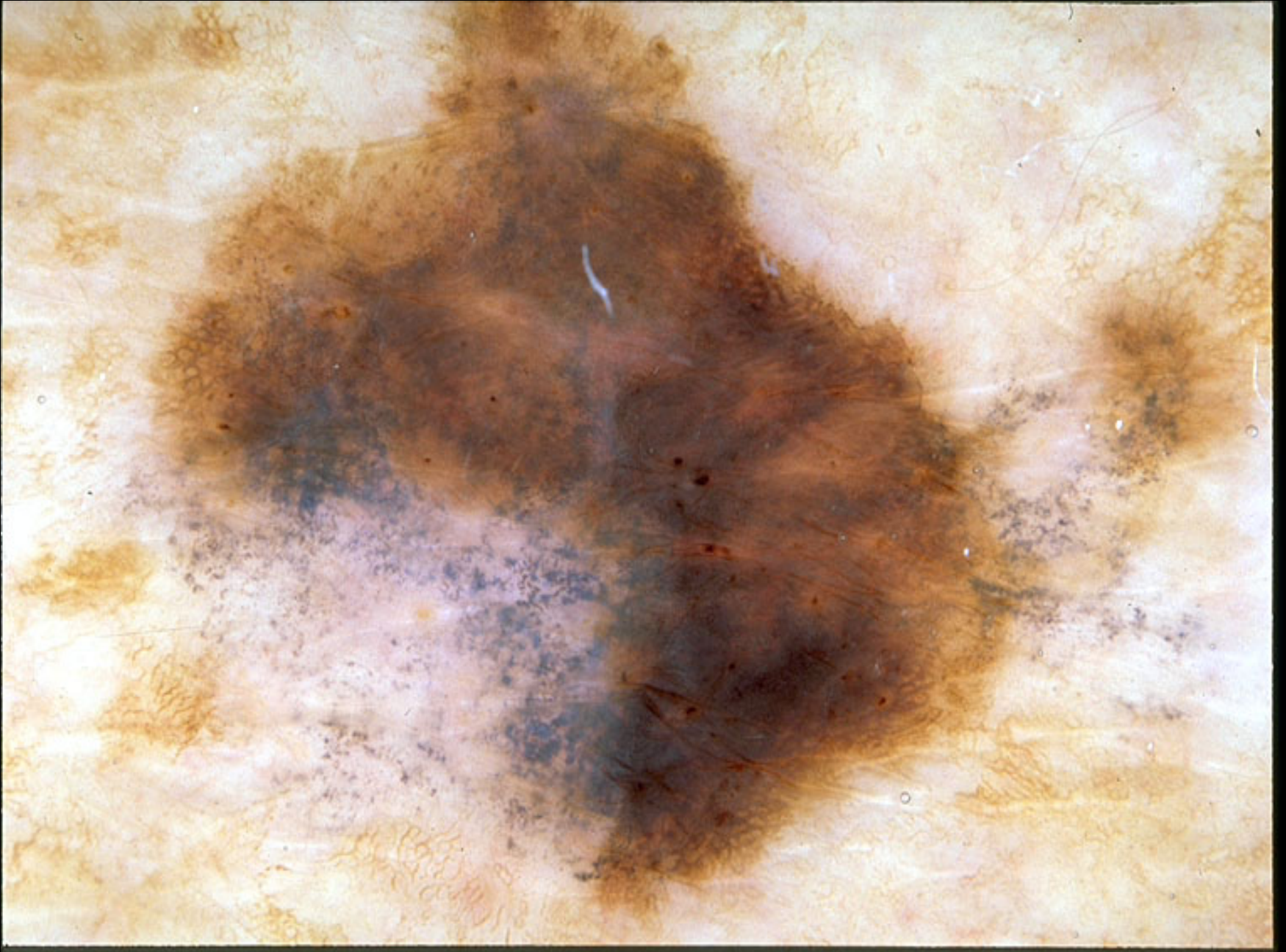
Blue-whitish veil – irregular, confluent, gray-blue to whitish-blue area



Blue-whitish veil sometimes is indistinguishable from regression structures



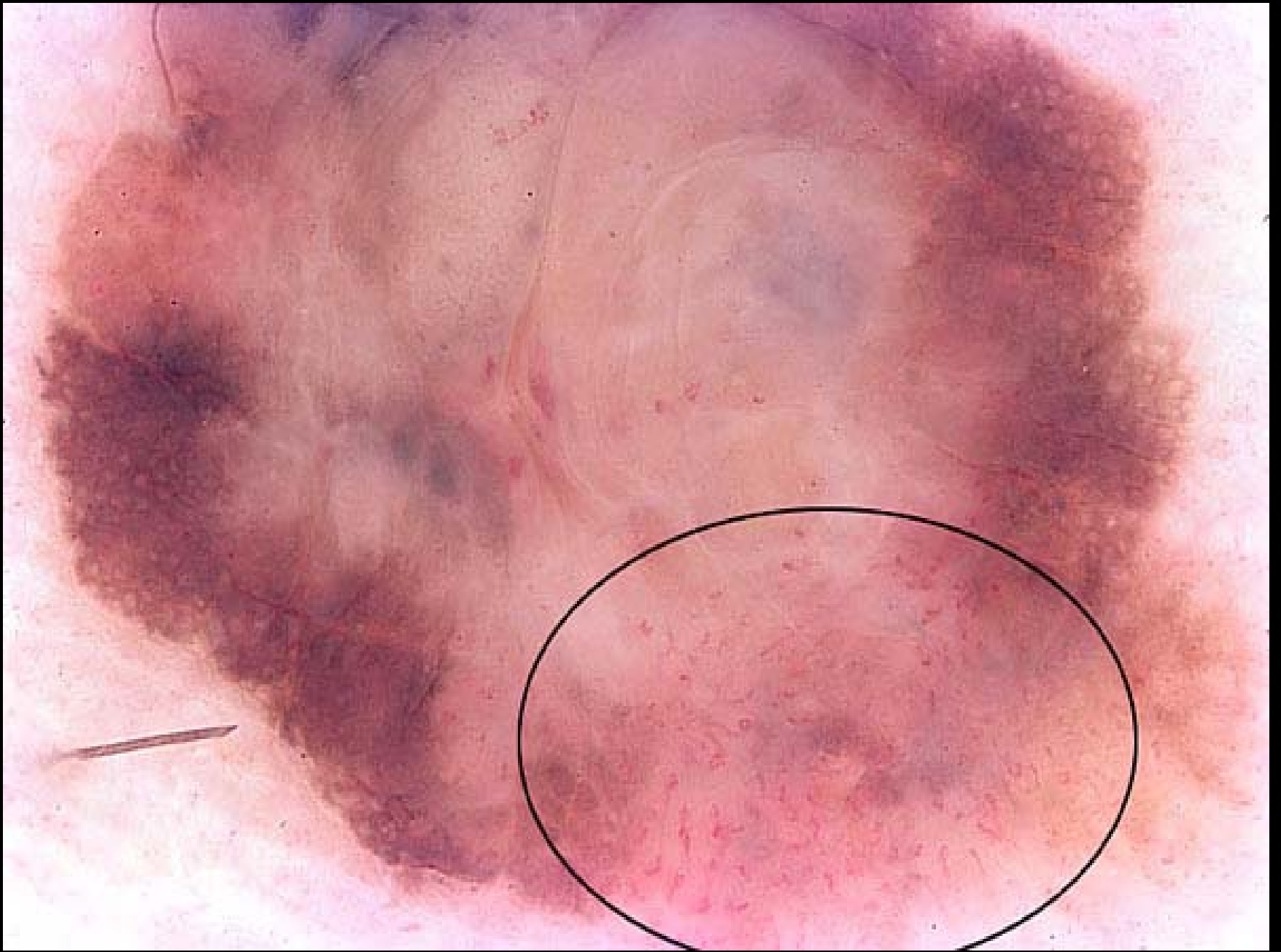
Regression structures characterized by white and blue areas in a regressive melanoma associated with a small congenital nevus



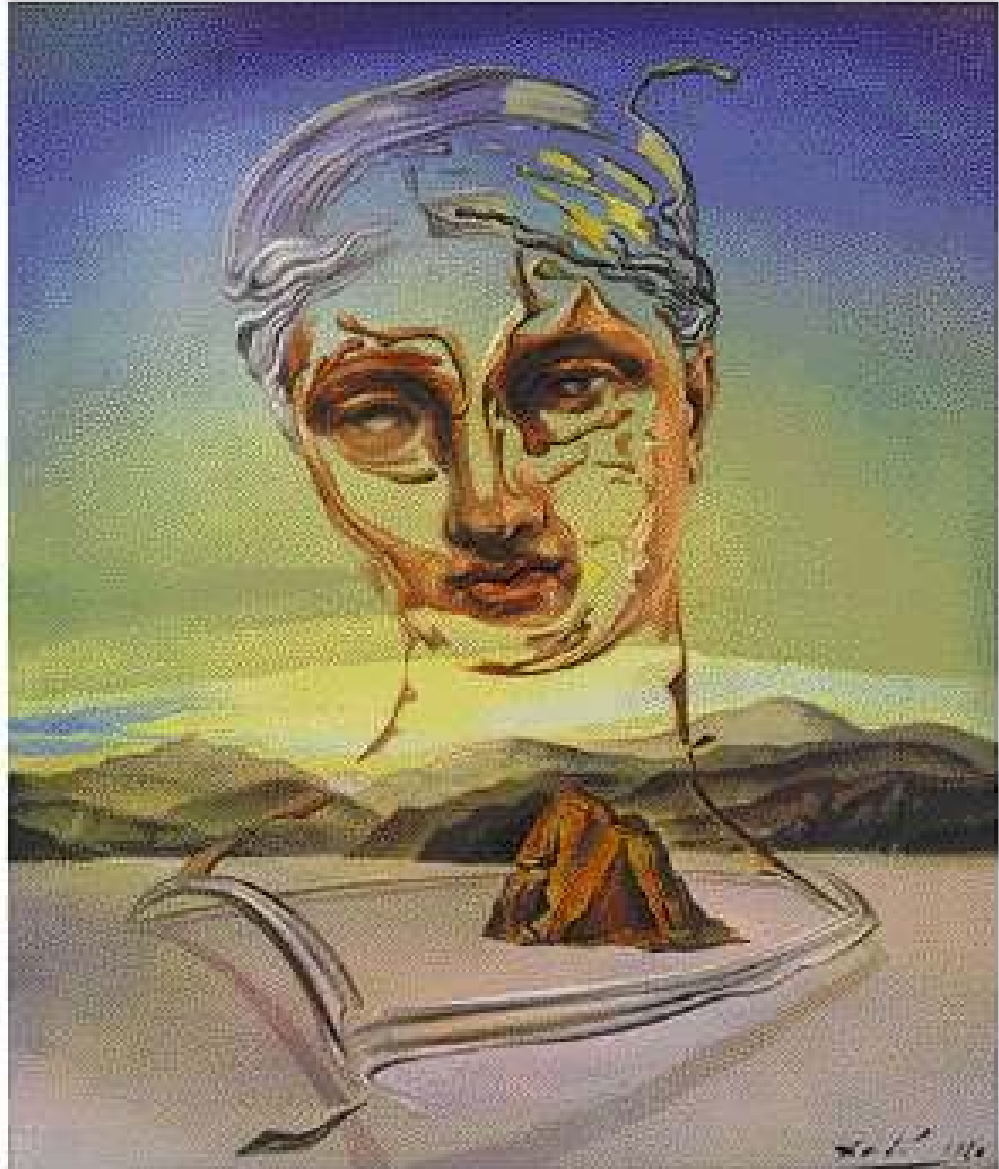
Regression structures characterized by white and blue areas in a melanoma



Numerous dotted vessels in a hypomelanotic nodular melanoma



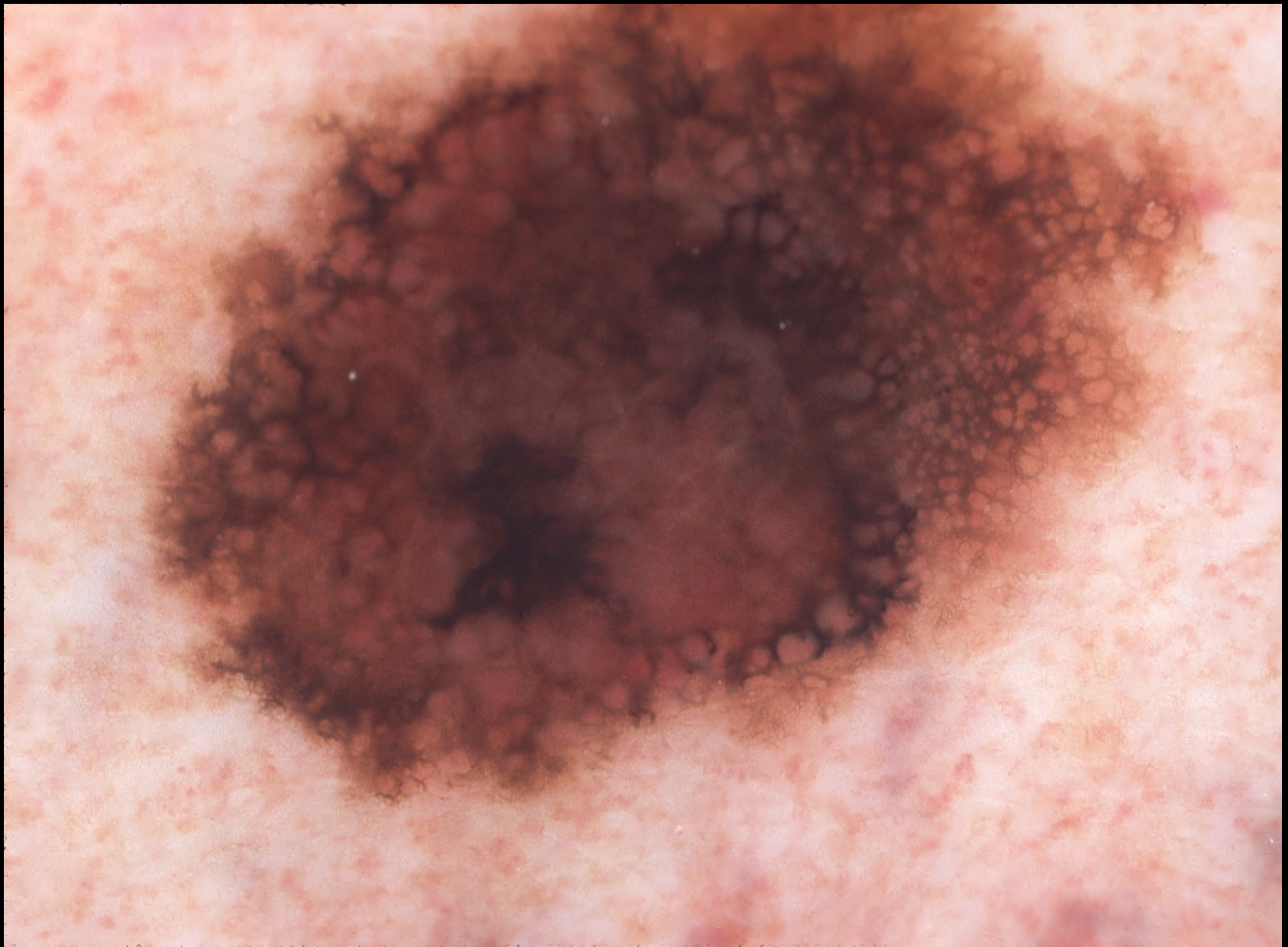
Linear irregular vessels in a melanoma



# Melanoma-specific Dermoscopic Criteria for Melanoma in Situ and Early Invasive Melanoma

- Atypical pigment network
- Irregular dots/globules
- Irregular streaks
- Regression structures
- Blue-whitish veil

Dermoscopic asymmetry -- most important clue for melanoma diagnosis!



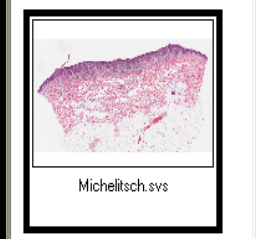
Dermoscopic asymmetry, atypical pigment network and irregular streaks



31-year-old woman with a large pigmented lesion on her right lower leg

Clinical diagnosis: Melanoma





Zoom

Fit

1X

2X

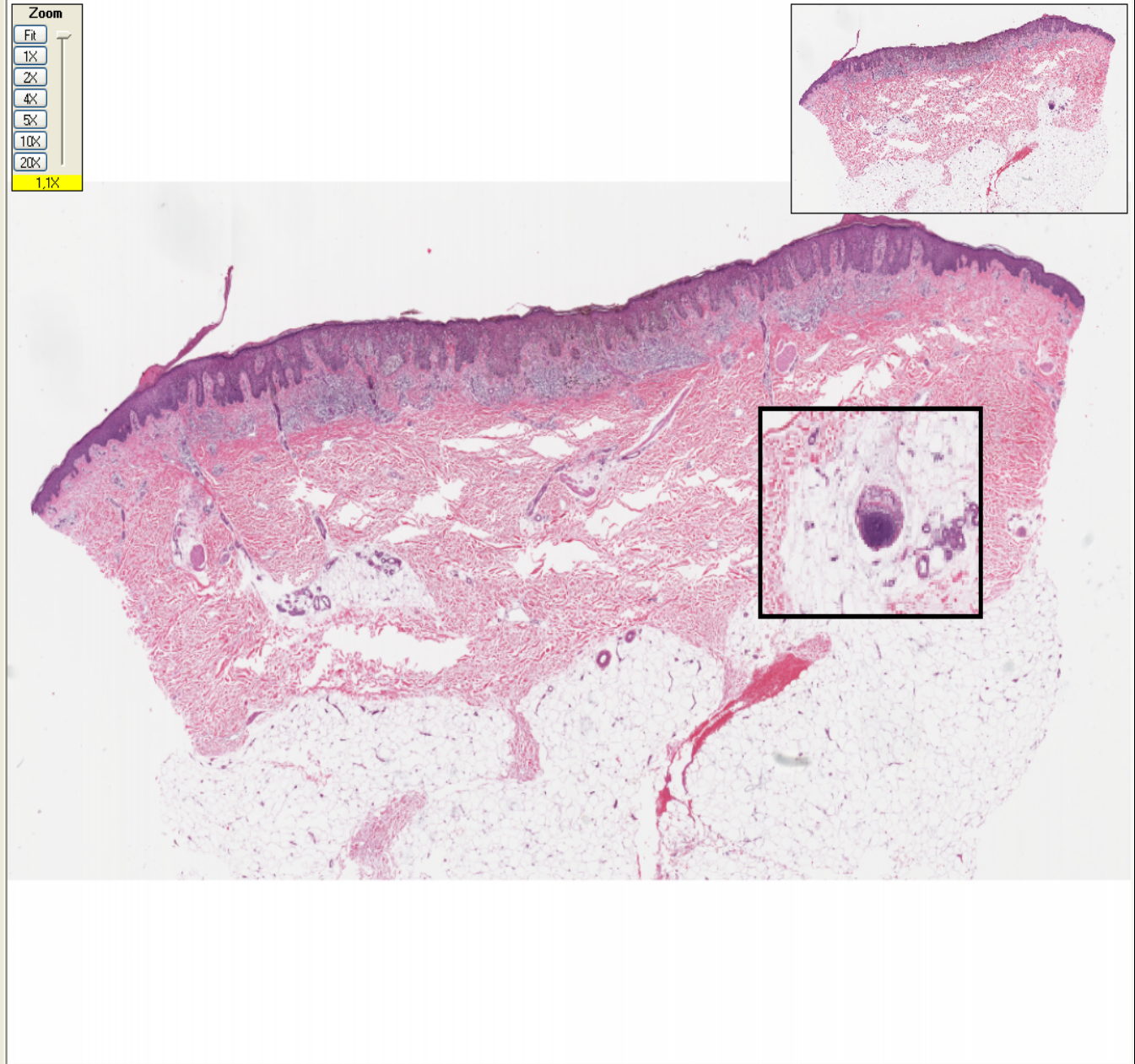
4X

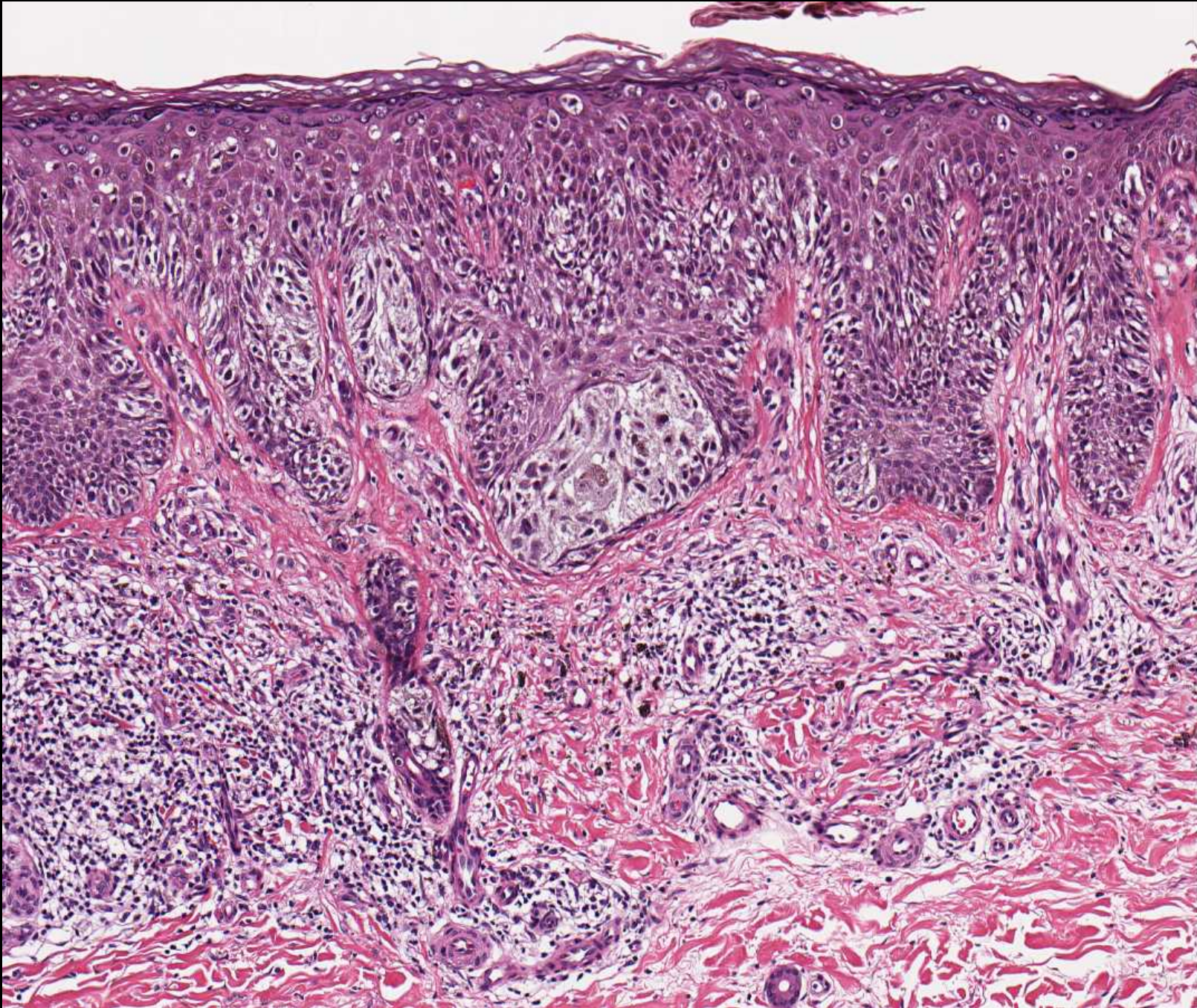
5X

10X

20X

1,1X







Histopathologic diagnosis:

Melanoma, pagetoid type

Breslow index: 0.6 mm

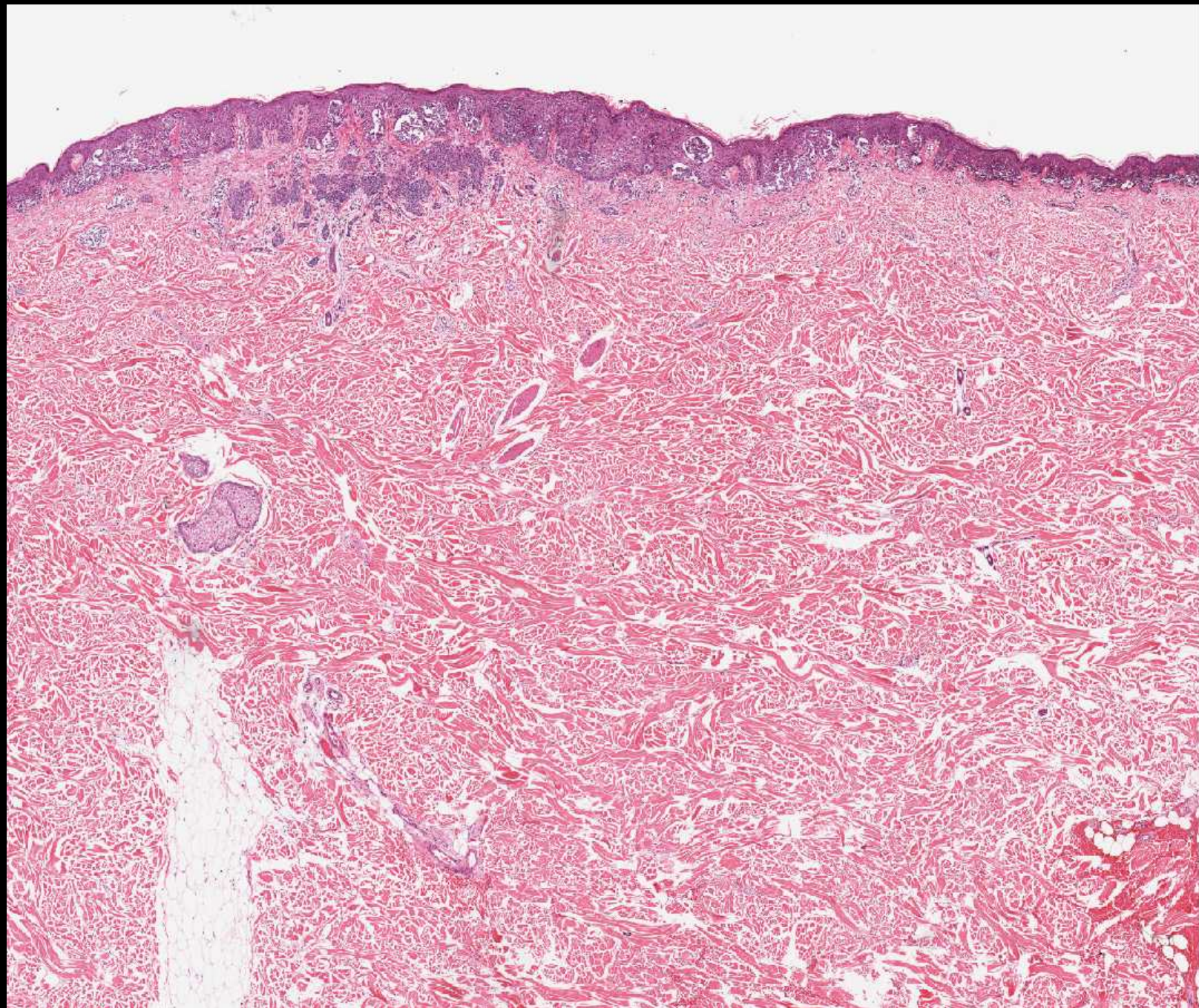


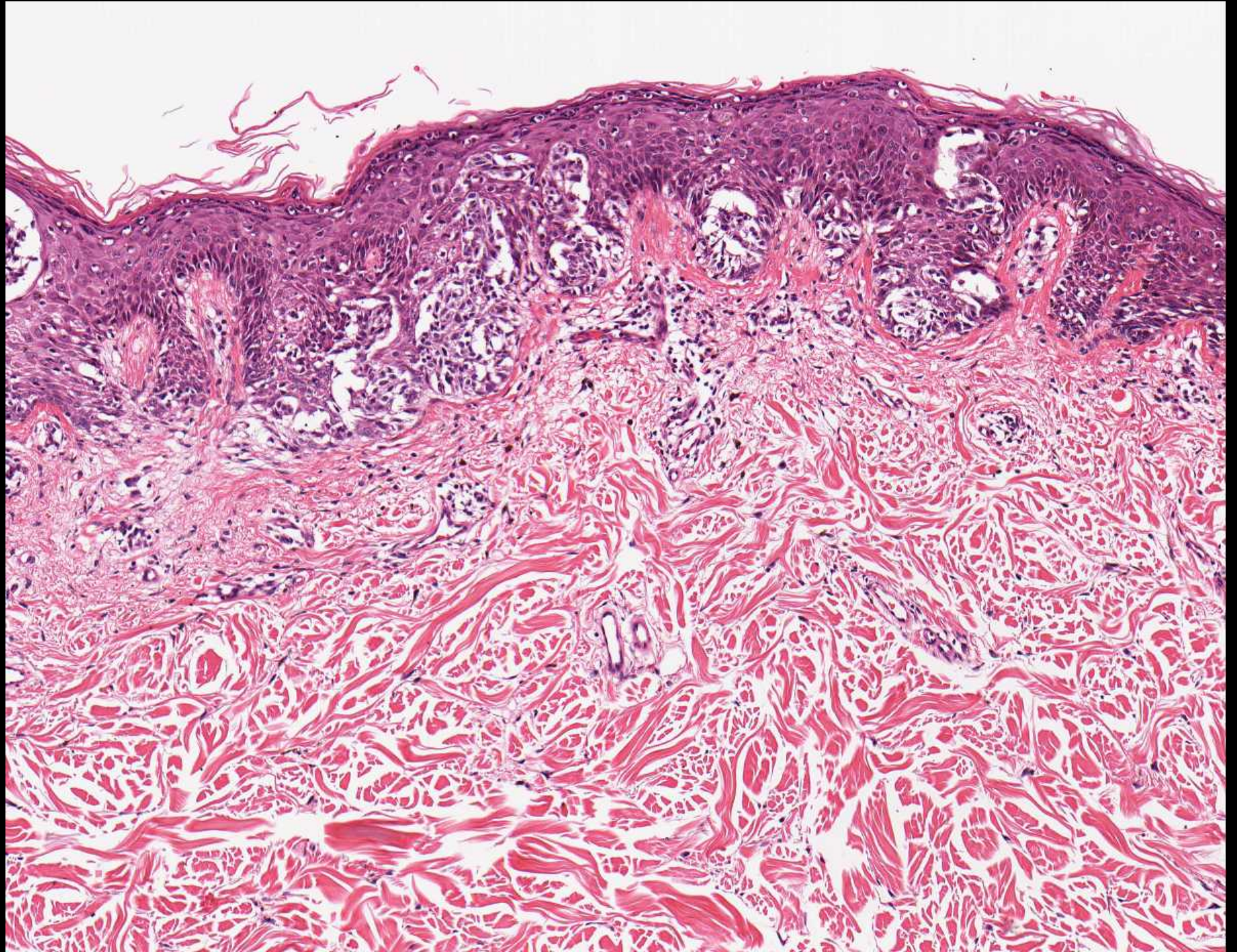
65-year-old man with a pigmented lesion  
on the back

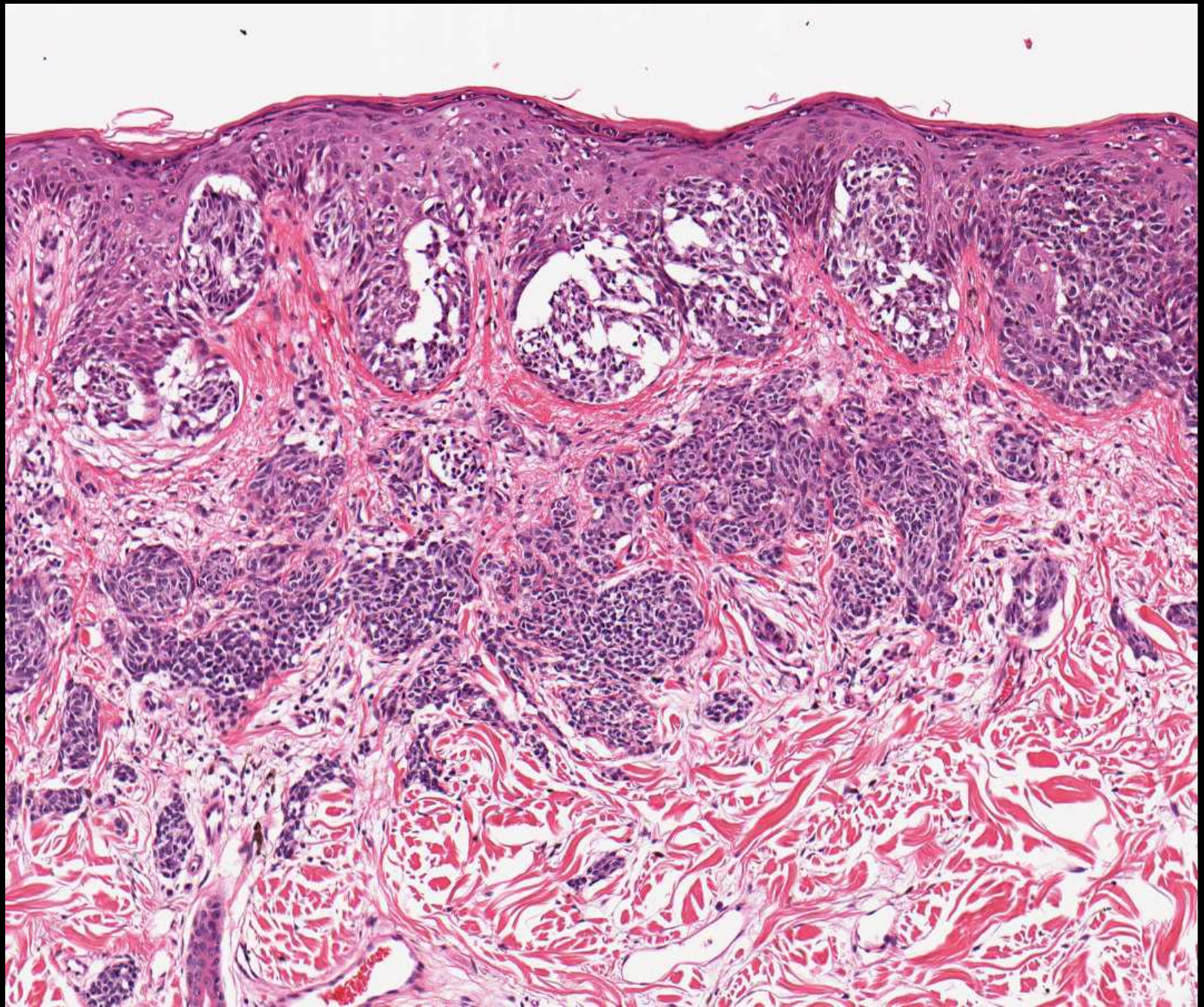
Clinical diagnosis: Clark nevus; rule out  
melanoma













Histopathologic diagnosis:

Superficial melanoma; Breslow index: 0.4 mm

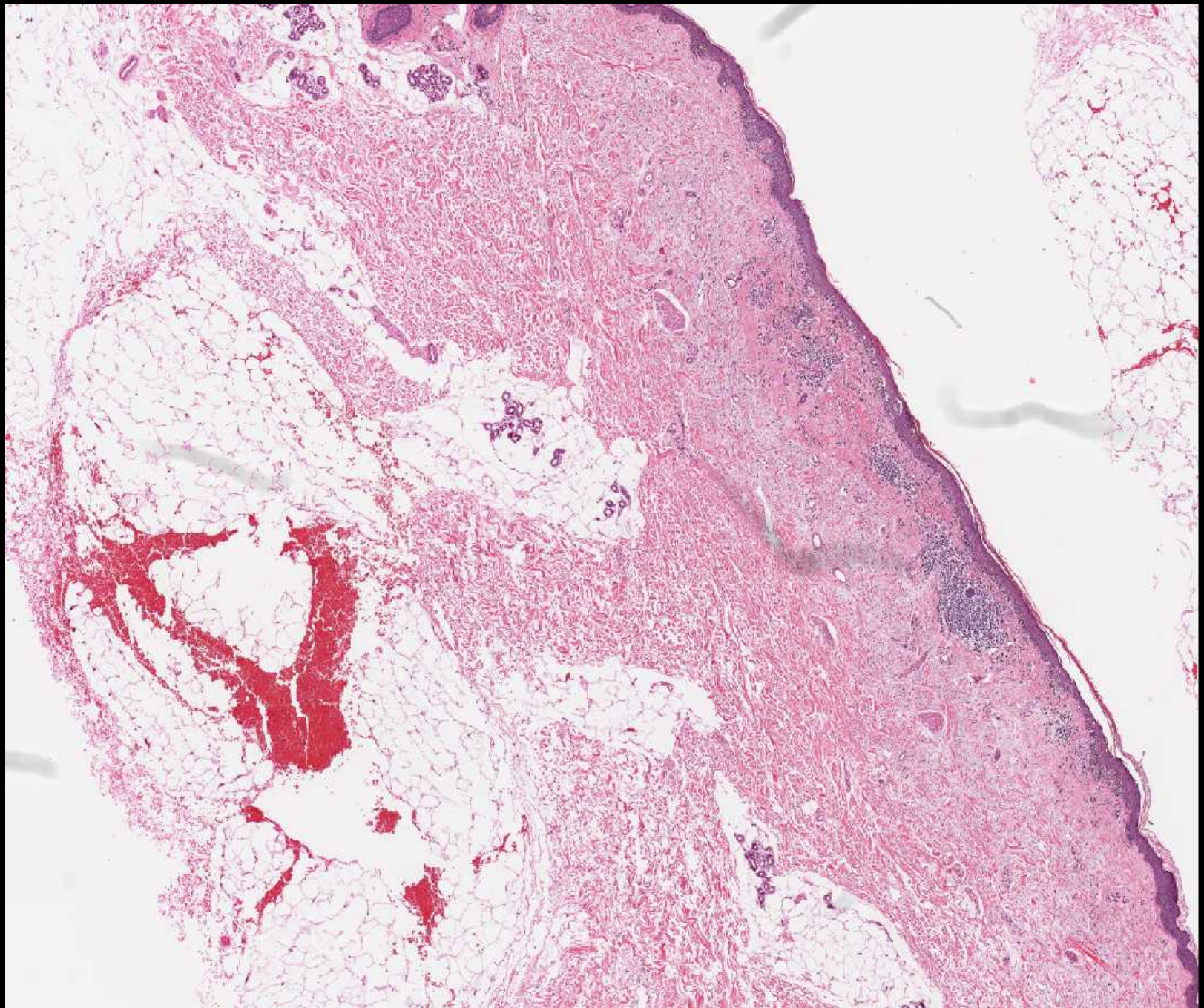


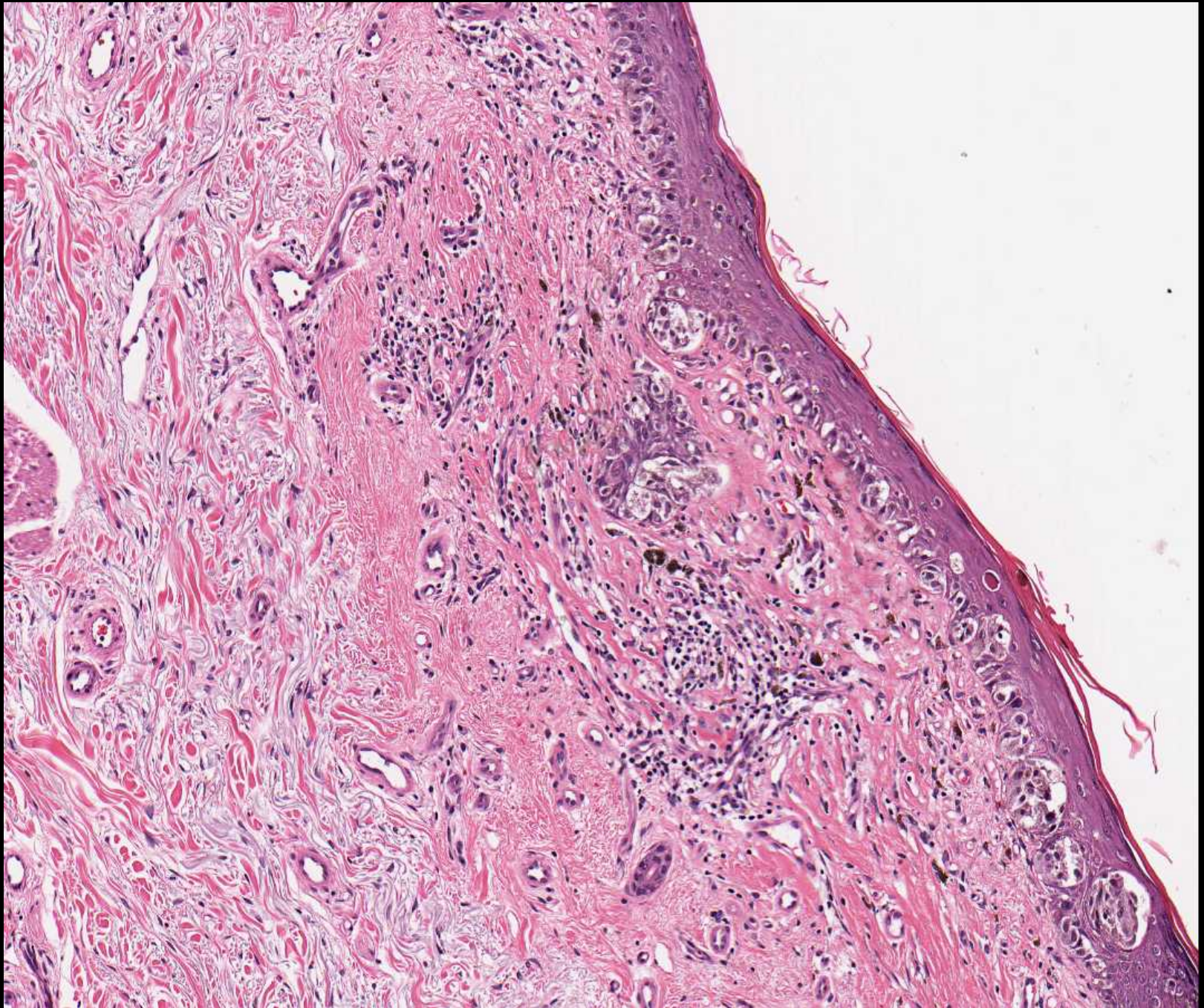
47-year-old woman with a pigmented lesion on her left lower arm

Clinical diagnosis: Clark nevus; rule out melanoma











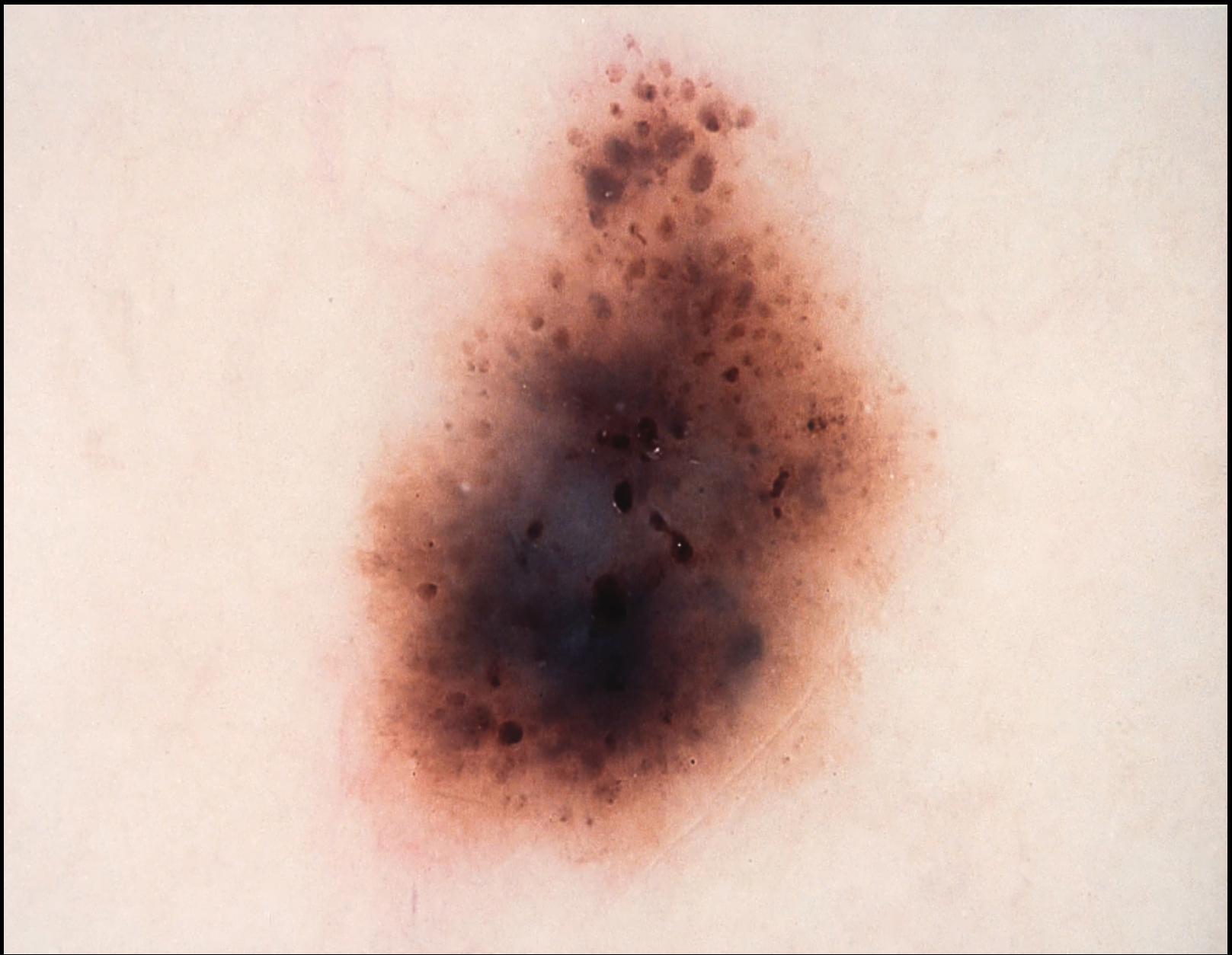
Histopathologic diagnosis:

Superficial melanoma; Breslow index: 0.3 mm

# Melanoma-specific Dermoscopic Criteria for Intermediate and Thick Melanoma

- Blue-whitish veil
- Irregular dots/globules
- Irregular streaks
- Vascular pattern
- Atypical pigment network
- Regression structures

Dermoscopic asymmetry -- most important clue for melanoma diagnosis!



Dermoscopic asymmetry, blue-whitish veil and irregular dots/globules

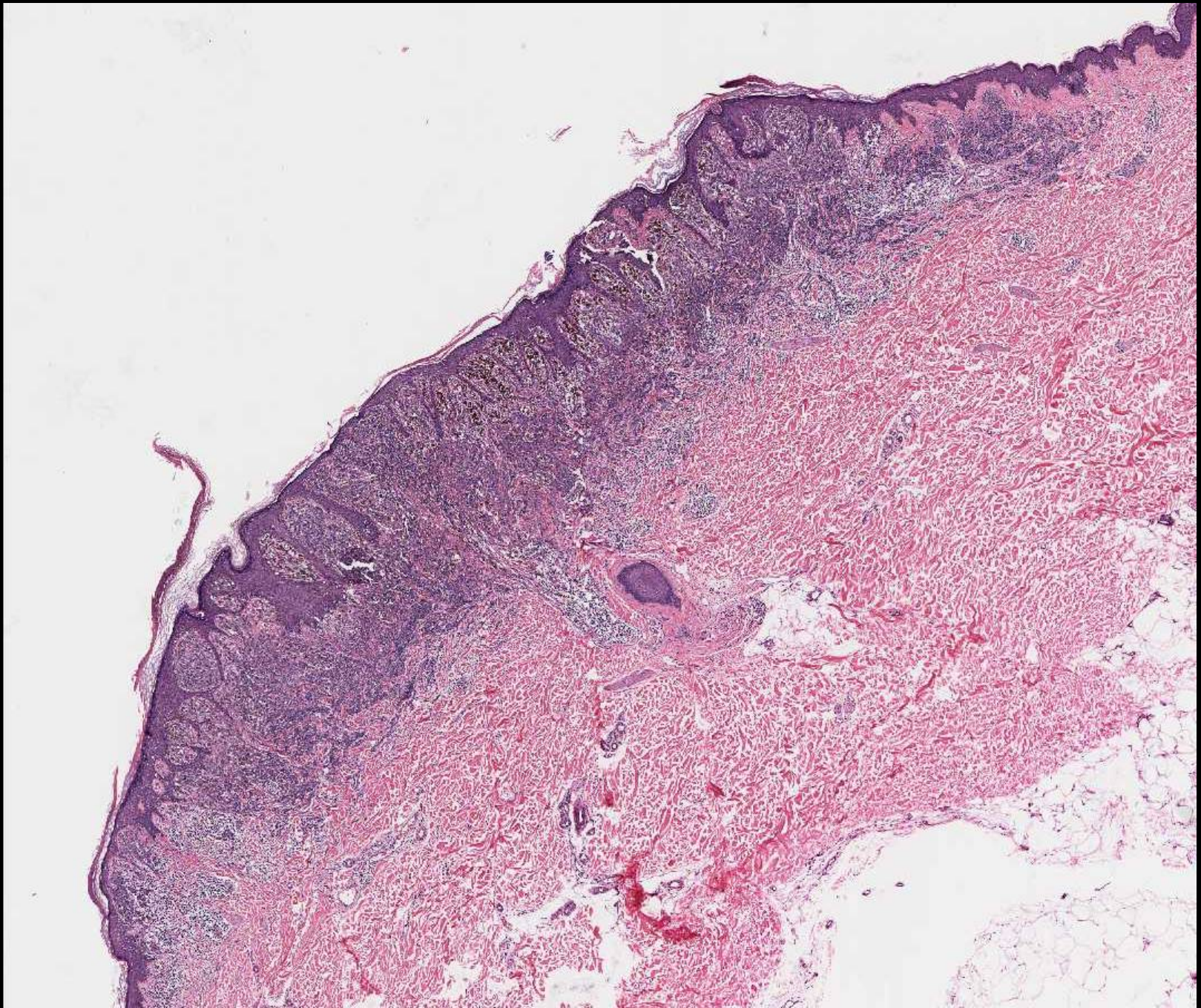


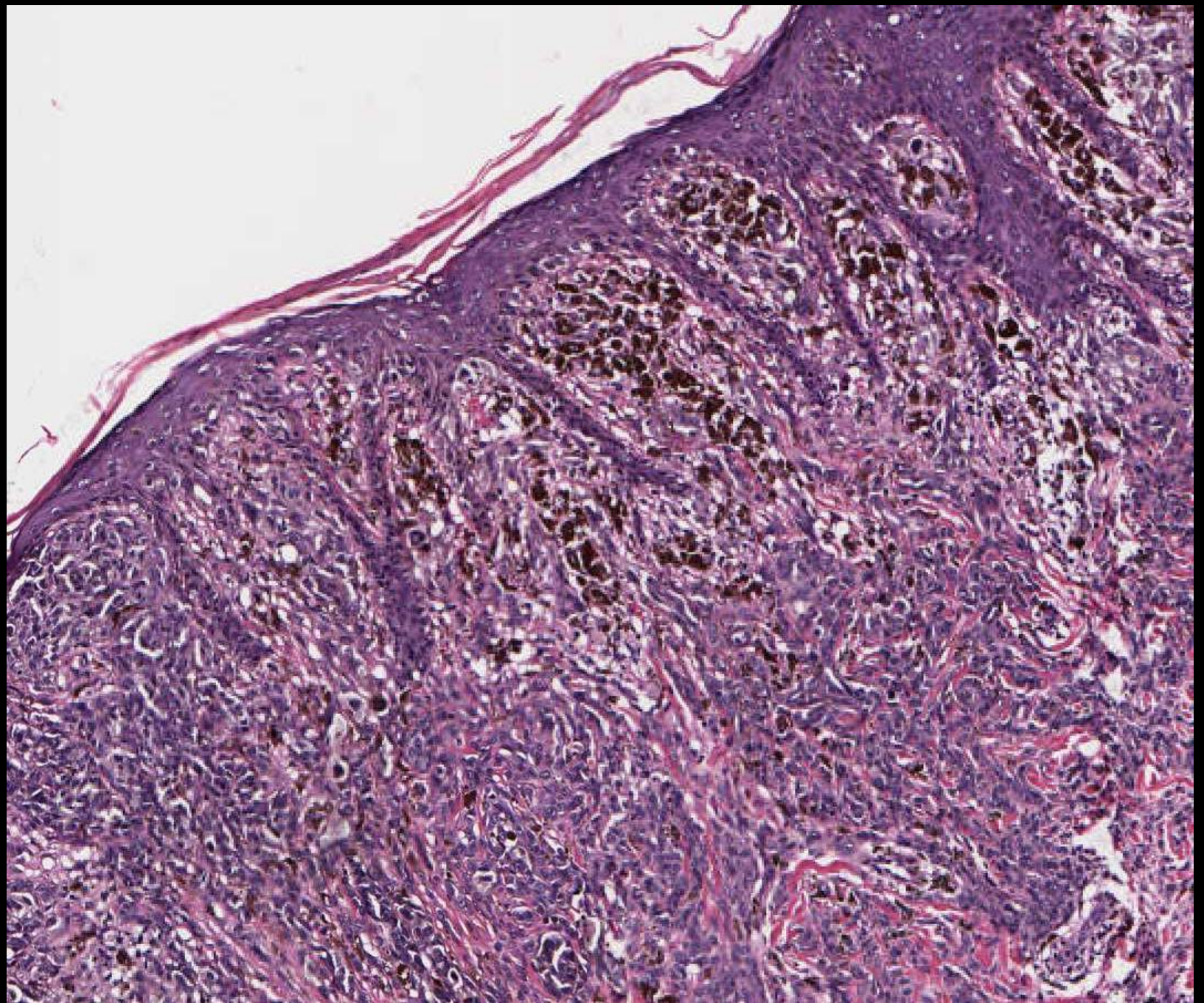
50-year-old man with a pigmented nodule  
on the inner aspect of his right arm

Clinical diagnosis: Melanoma











Histopathologic diagnosis:

Melanoma in association with a pre-existing nevus

Breslow index: 1.3 mm

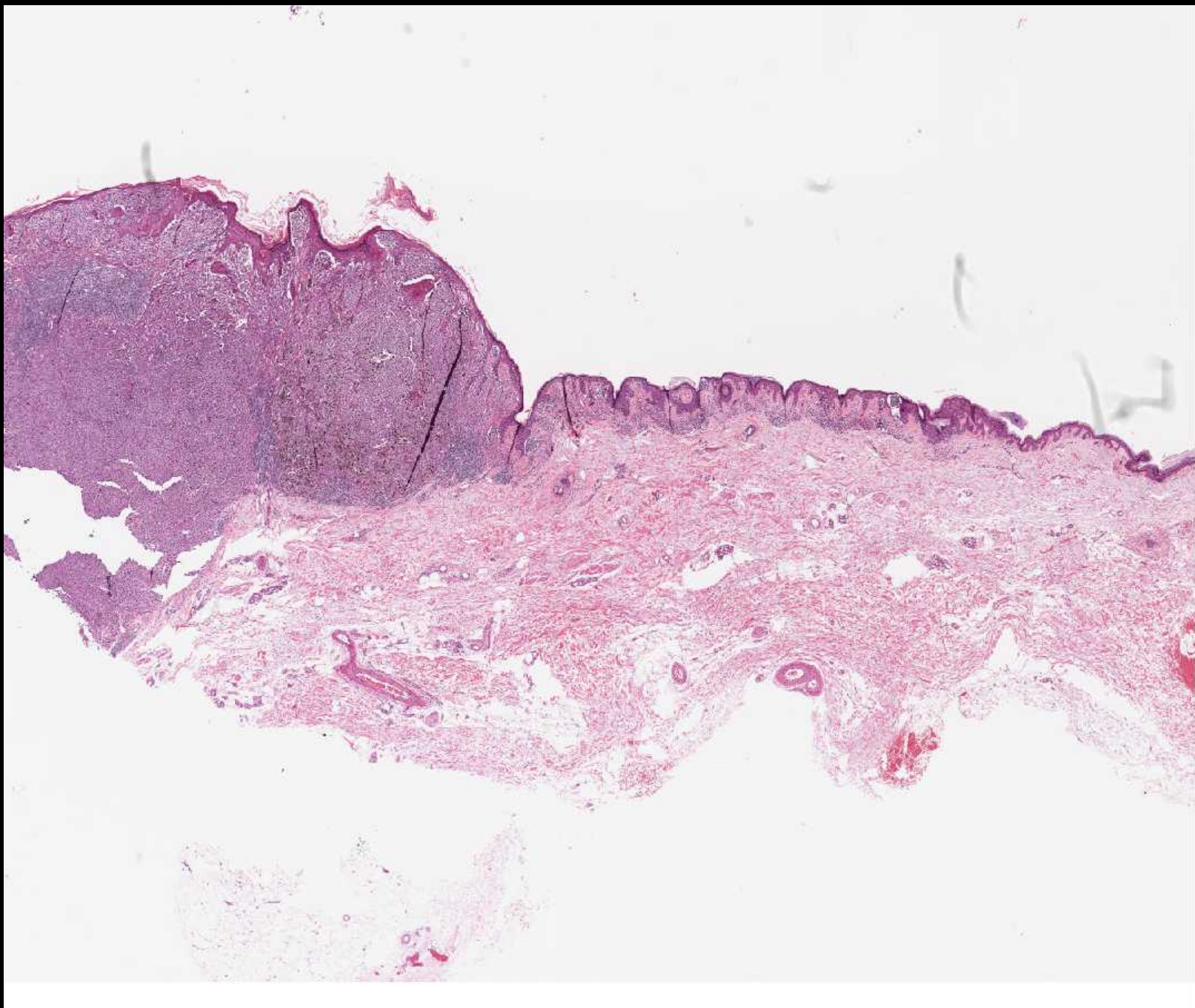


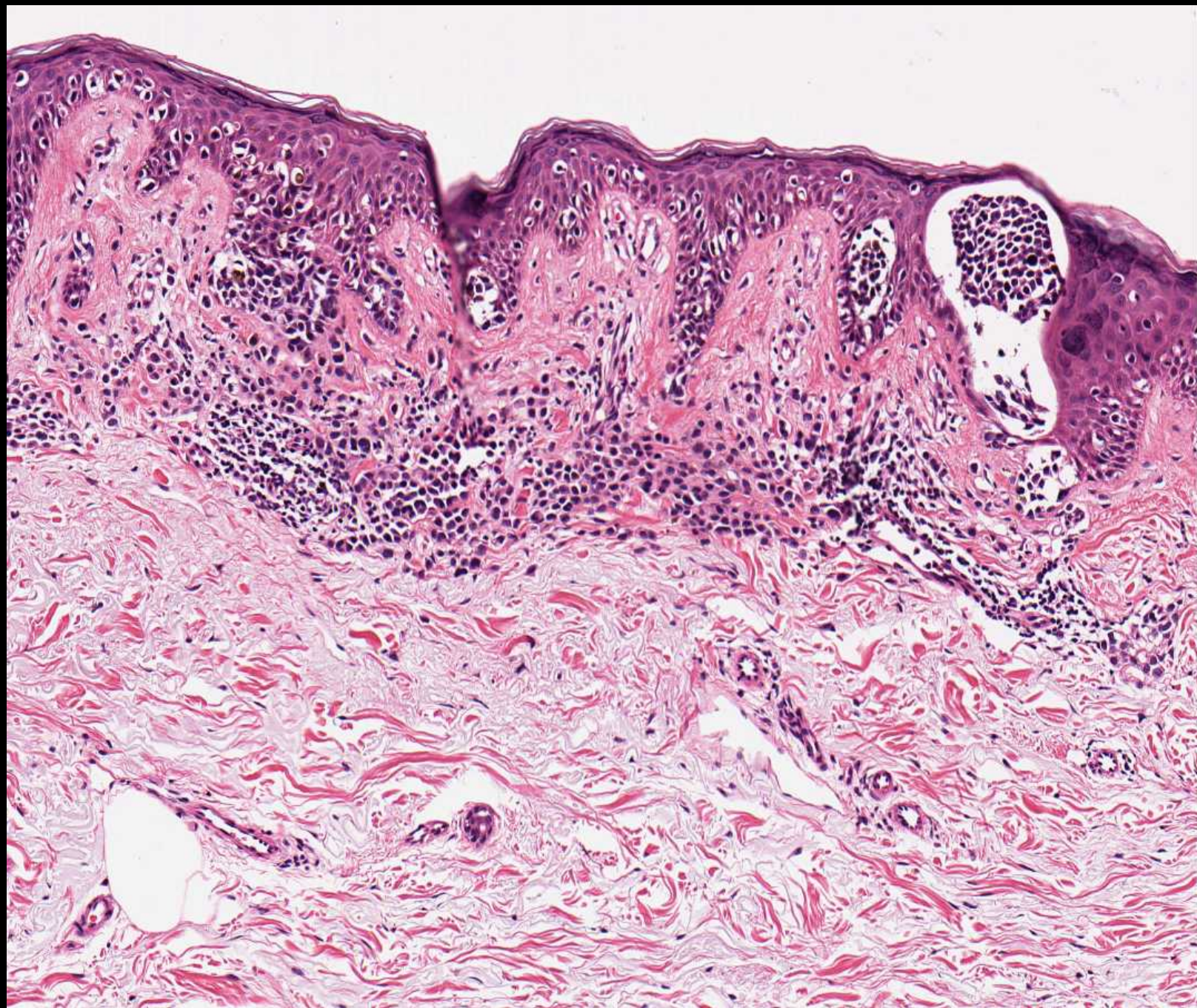
79-year-old woman with a pigmented nodule on an erythematous plaque on her left elbow

Clinical diagnosis: Nodular melanoma?











Histopathologic diagnosis:

Melanoma; Breslow index: 3.1 mm

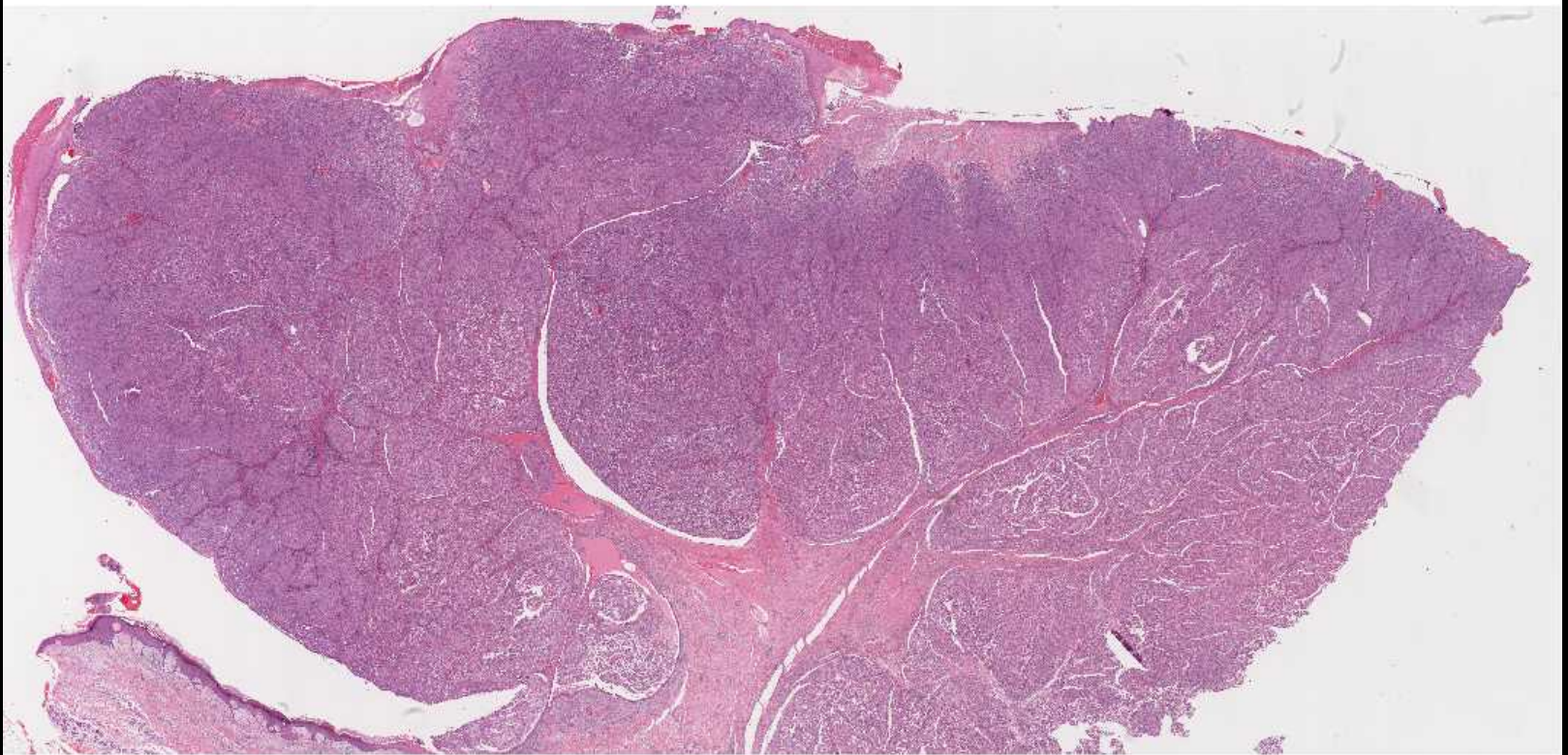


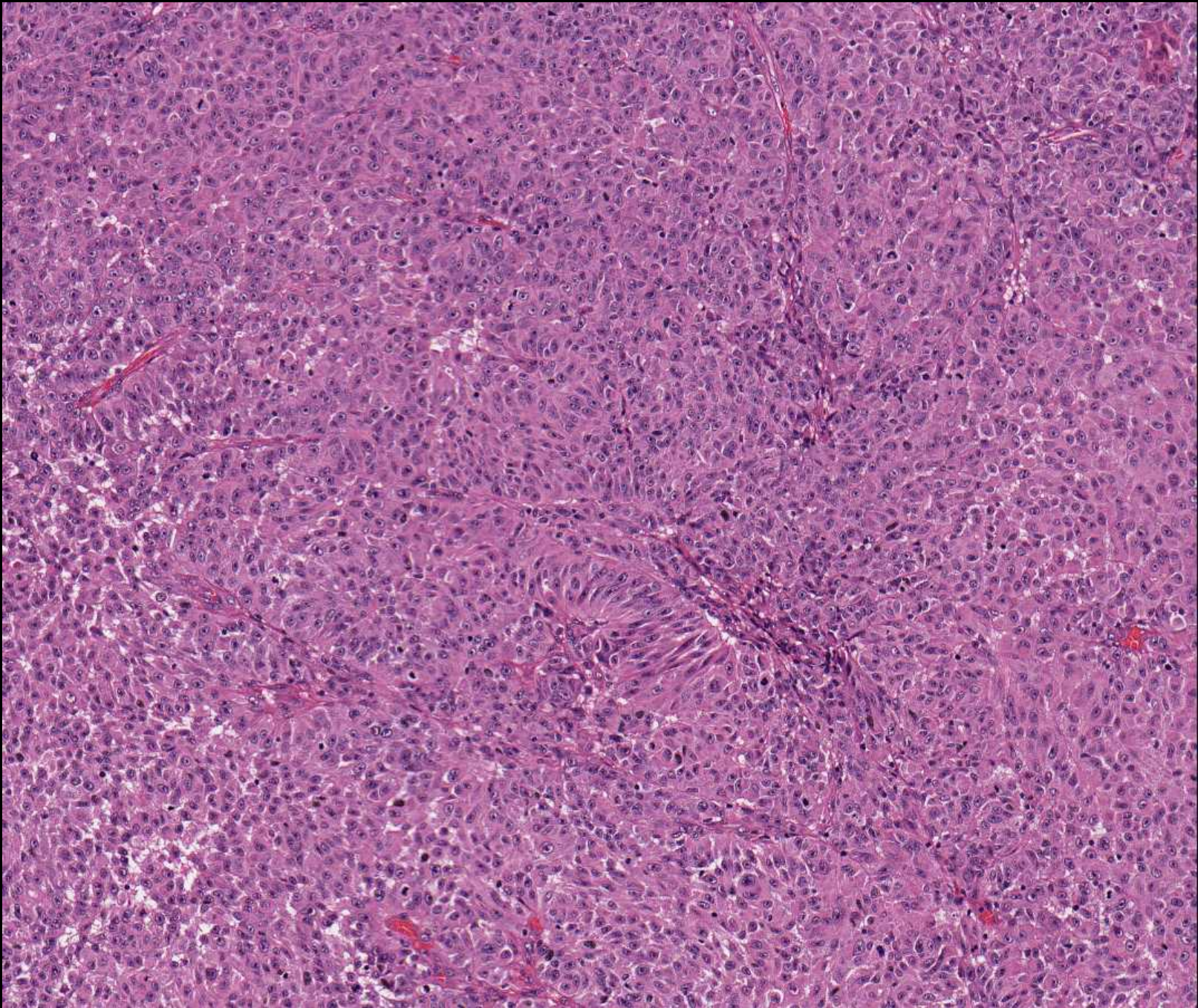
75-year-old woman with an ulcerated  
nodule on her lower arm

Clinical diagnosis: Rule out melanoma











Histopathologic diagnosis:

Exophytic ulcerated melanoma

Breslow index: 20.0 mm



'On a clear day you can see forever.'