Melanoma In Situ
Taking it to the Lowest Level

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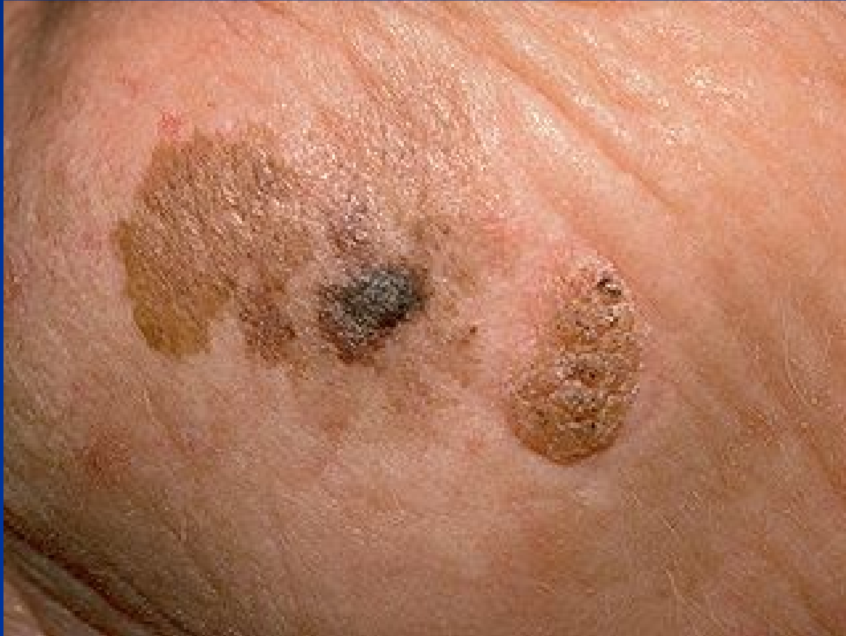
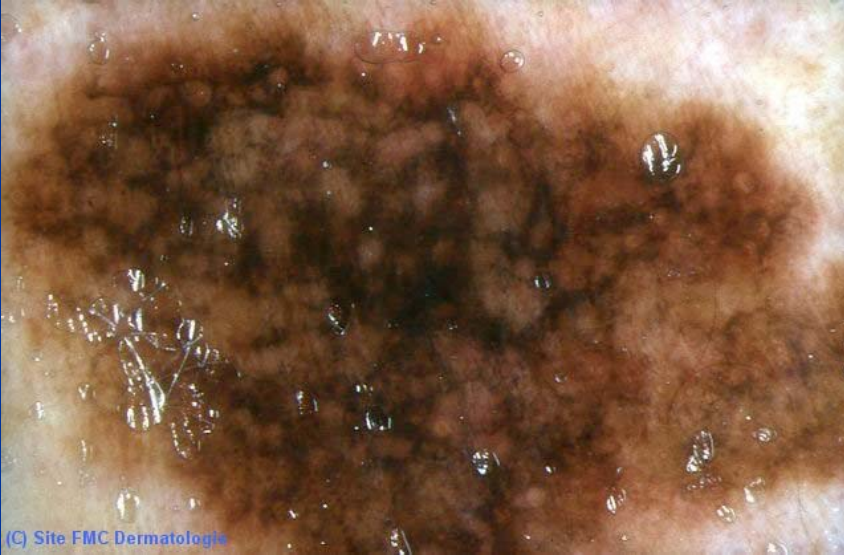
Epidemiology



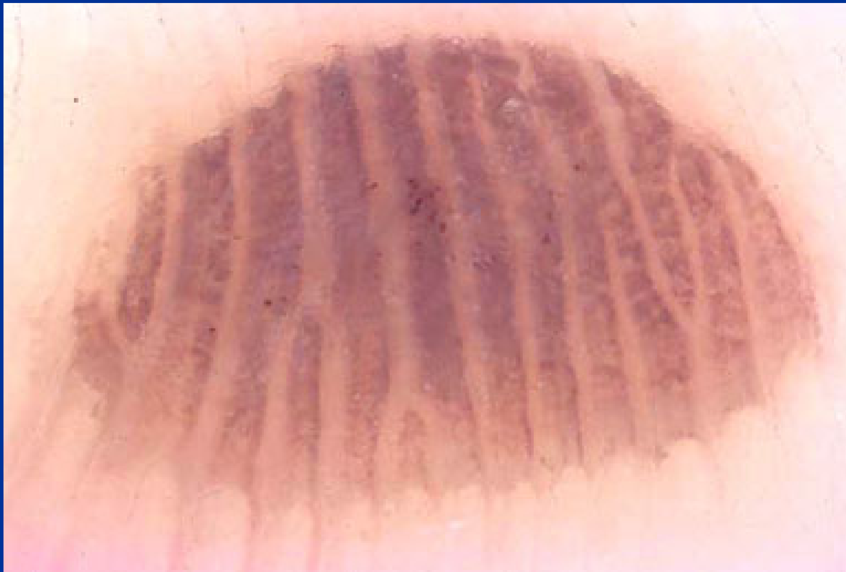
- 10-26% of all head and neck melanomas
  - Cheek most common site
- 4-15% of all malignant melanomas
- Caucasians
- Mean 65 yrs

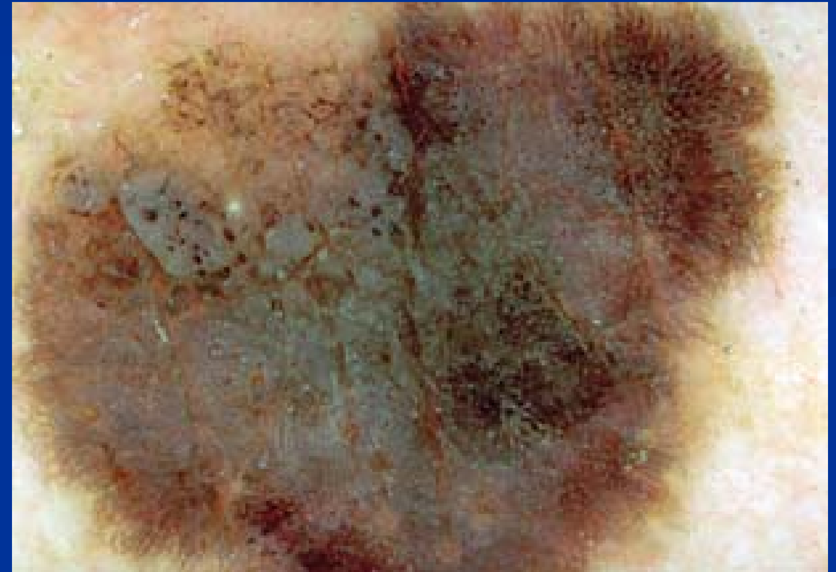
Clinical Appearance



- Ill defined macule with mottled pigmentation
- Associated actinic changes
- Rare amelanotic variants

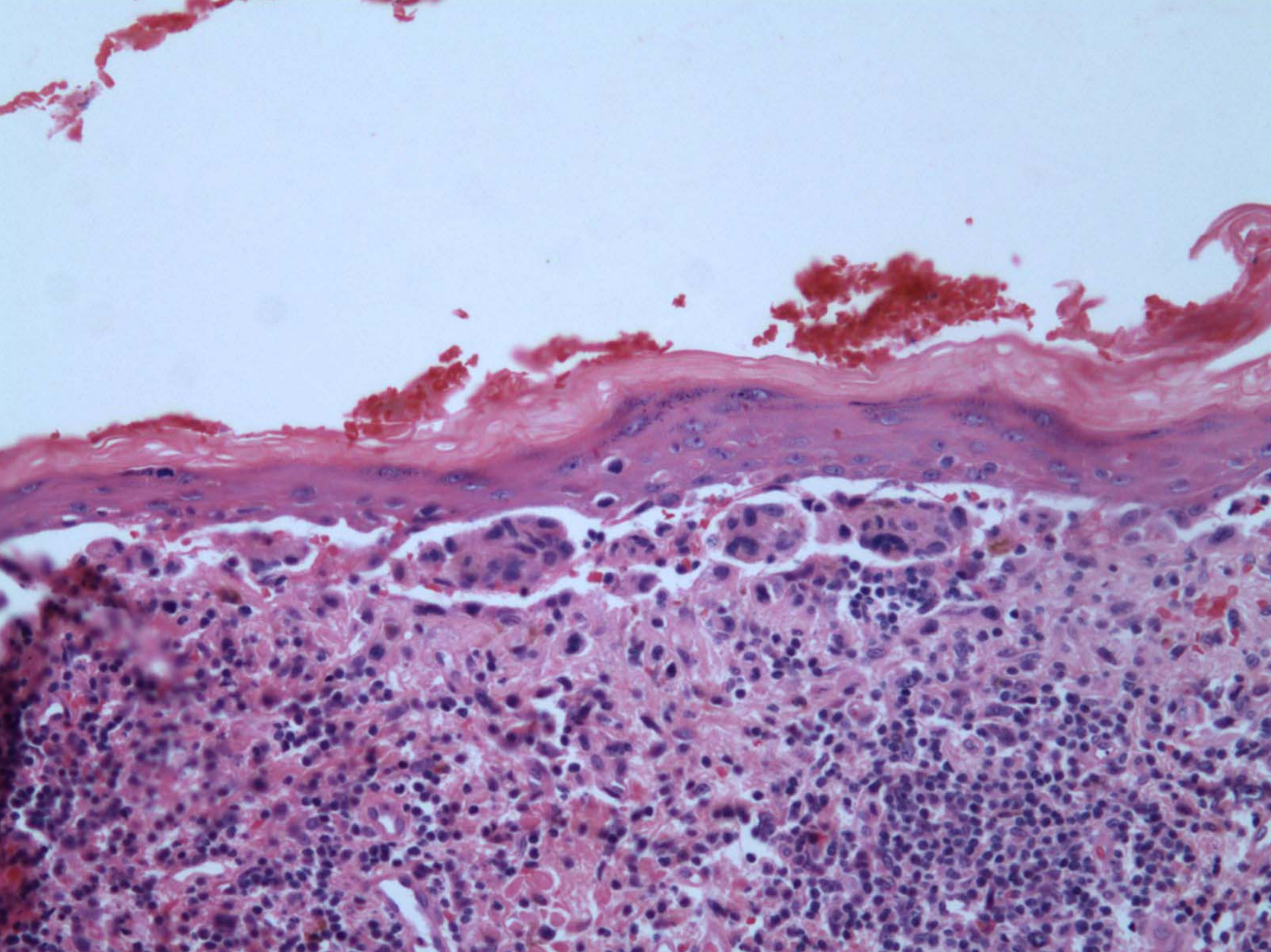
Dermoscopy

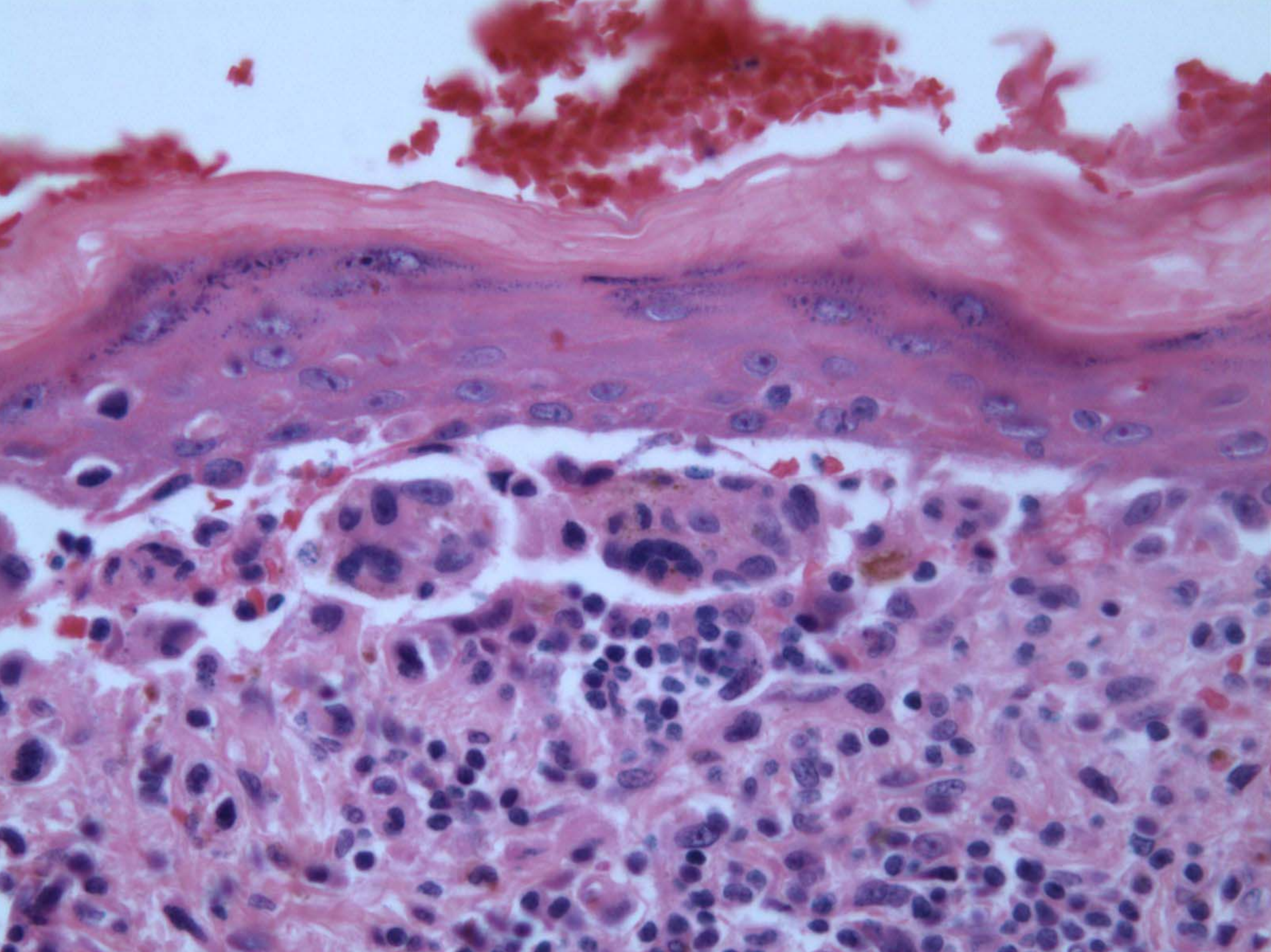


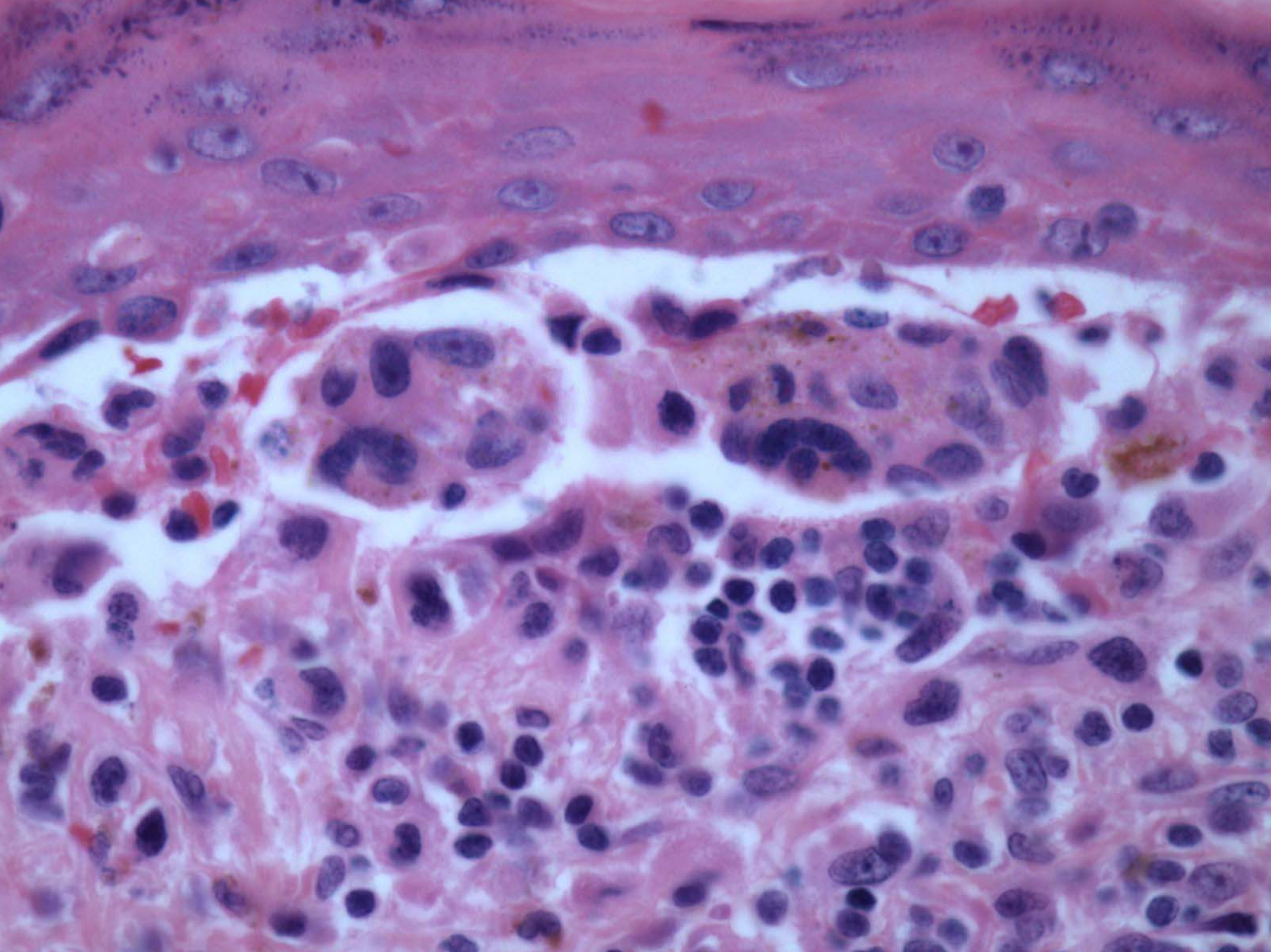


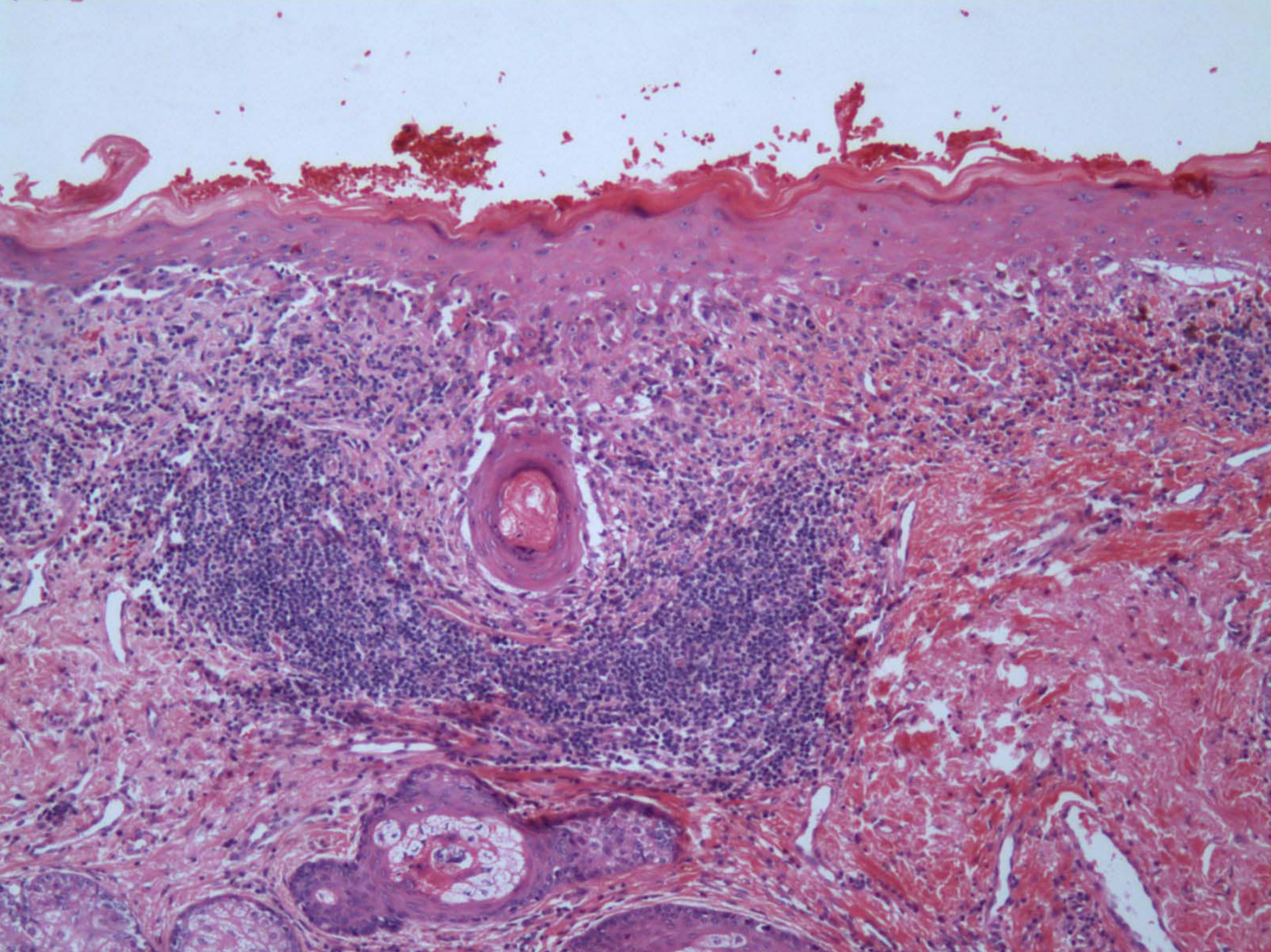
Obtaining An Adequate Biopsy

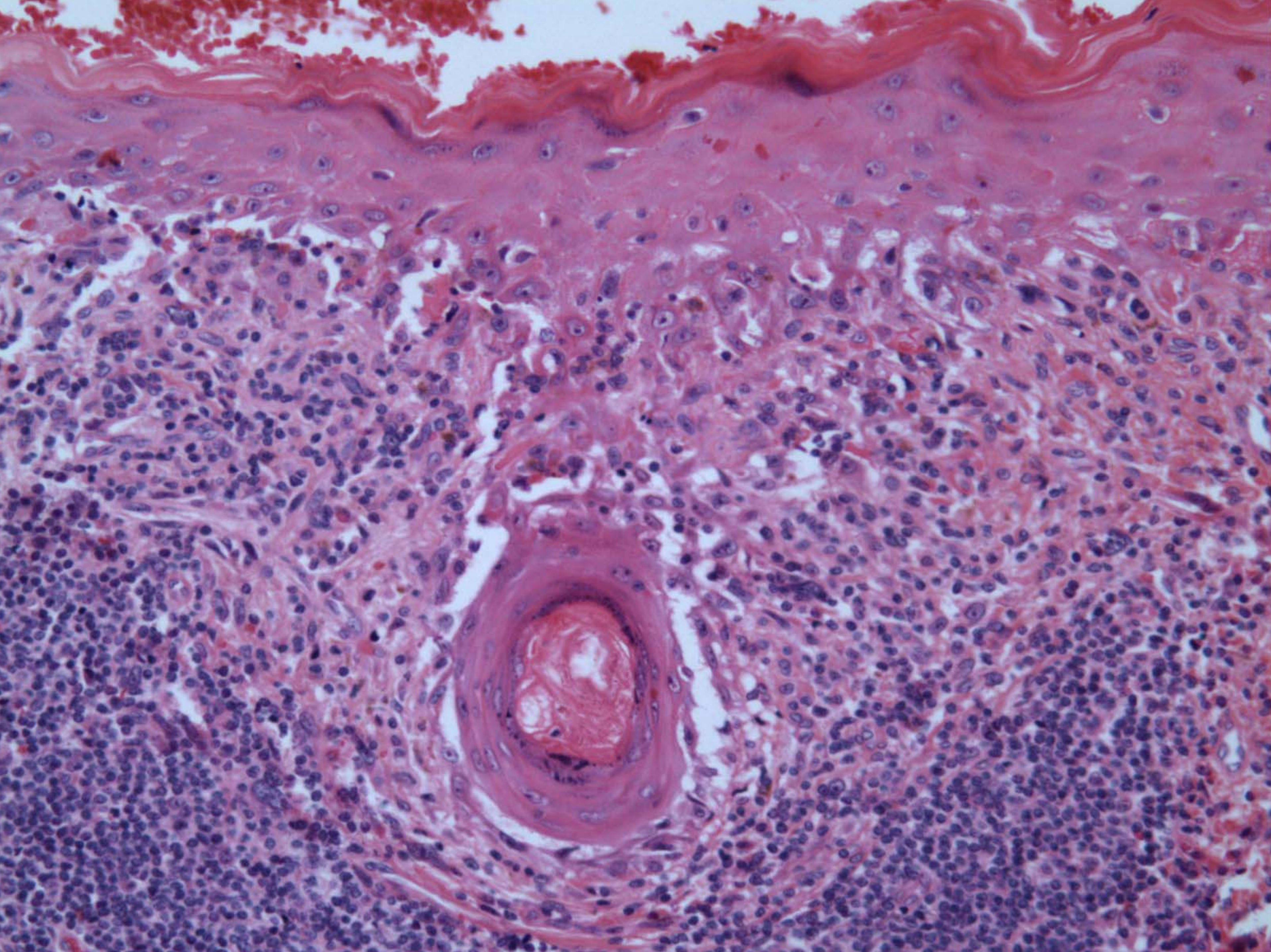
- Excisional biopsy
- Two or three punch biopsies from clinically atypical areas
  - Punch biopsy in 46 cases missed invasive melanoma in 20% of cases
  - Levels through block in 66 cases found dermal invasion in 12%

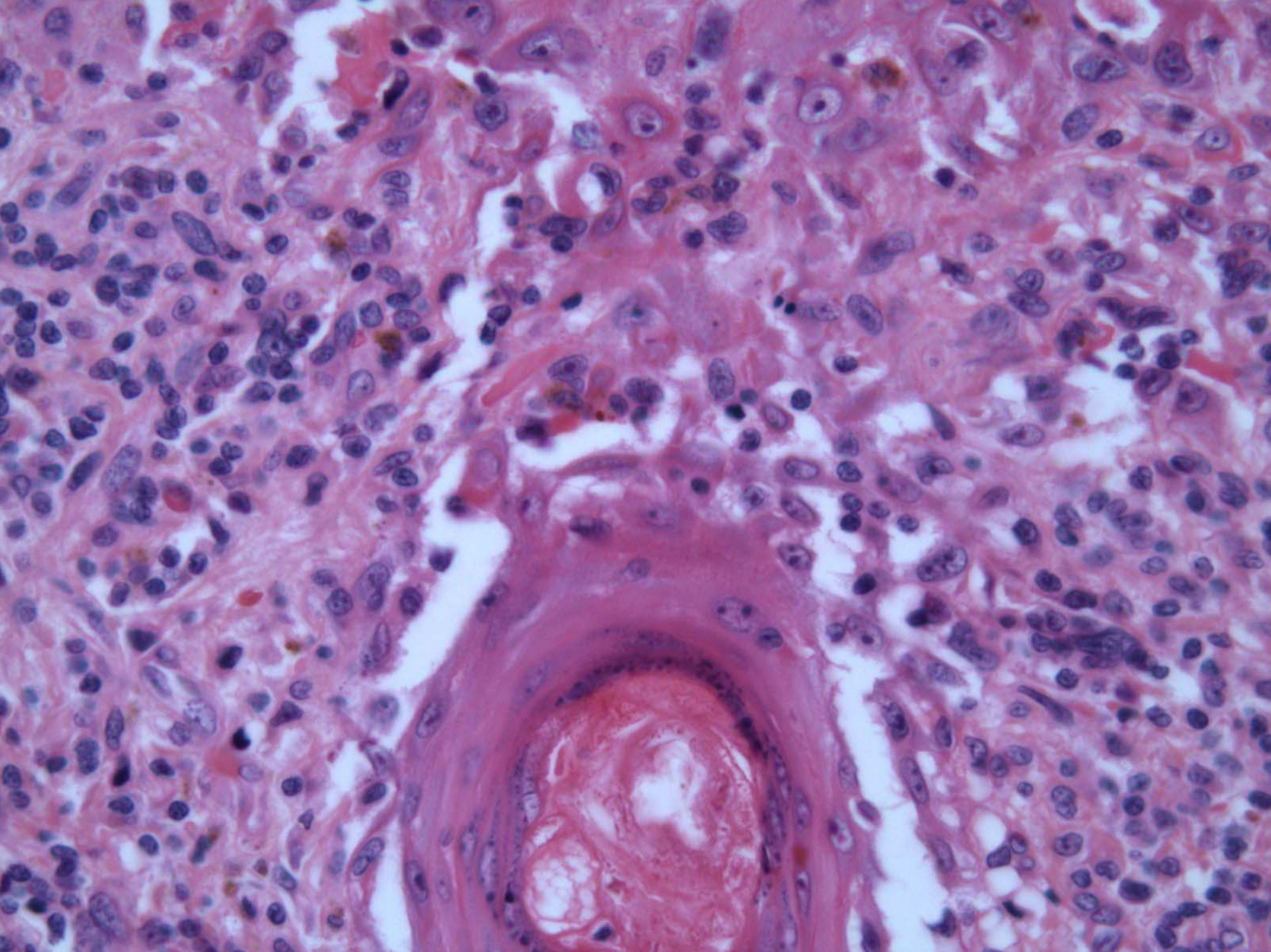




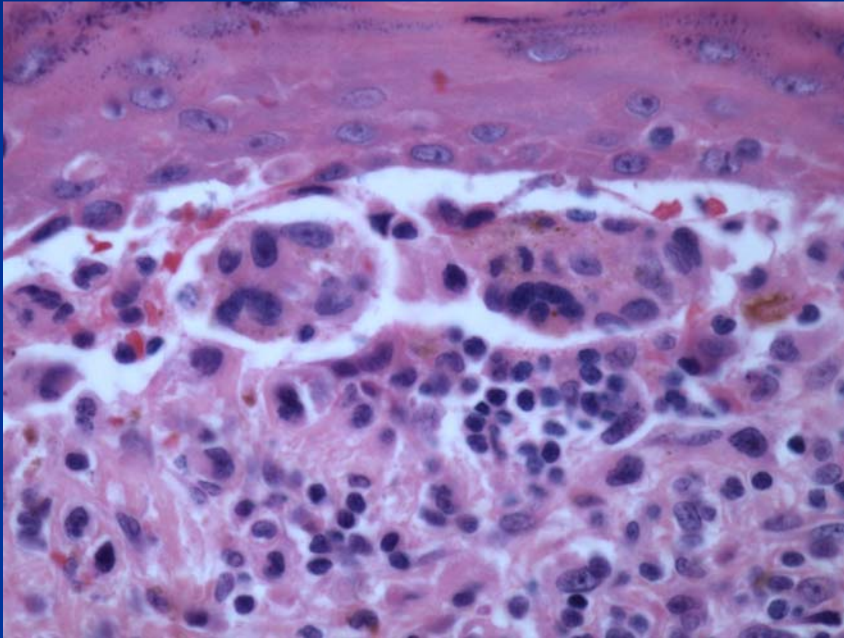




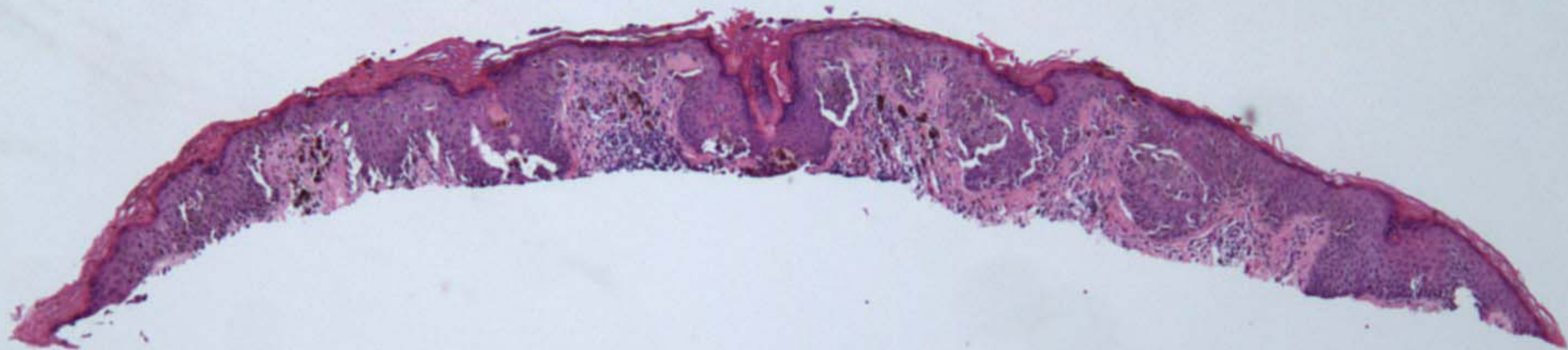


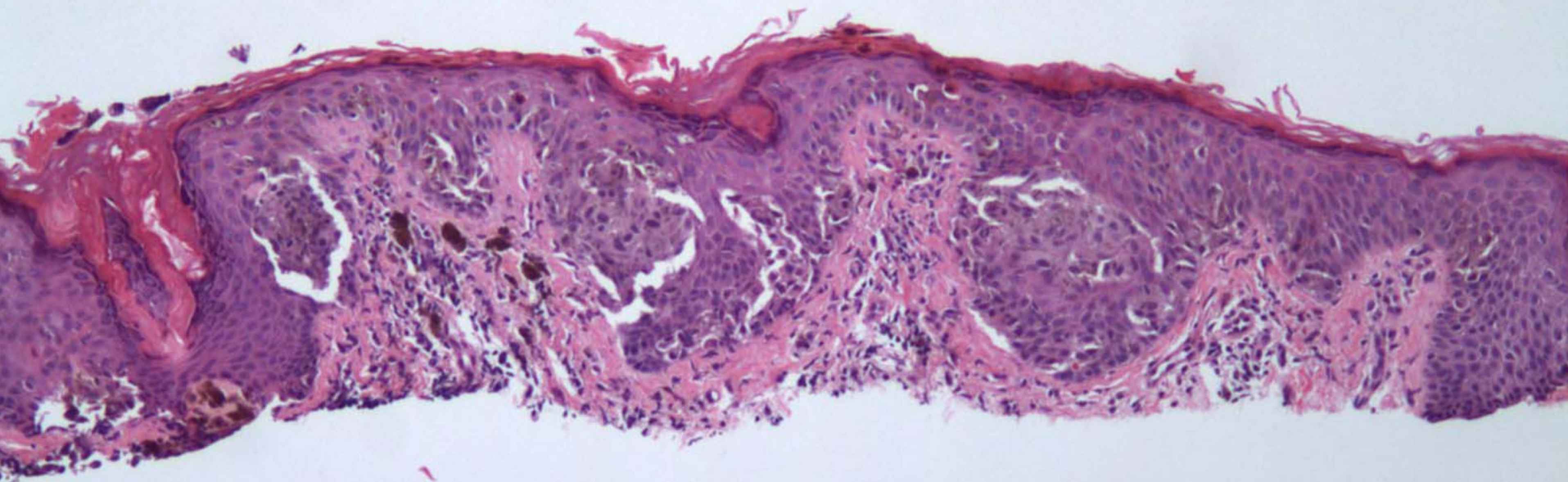


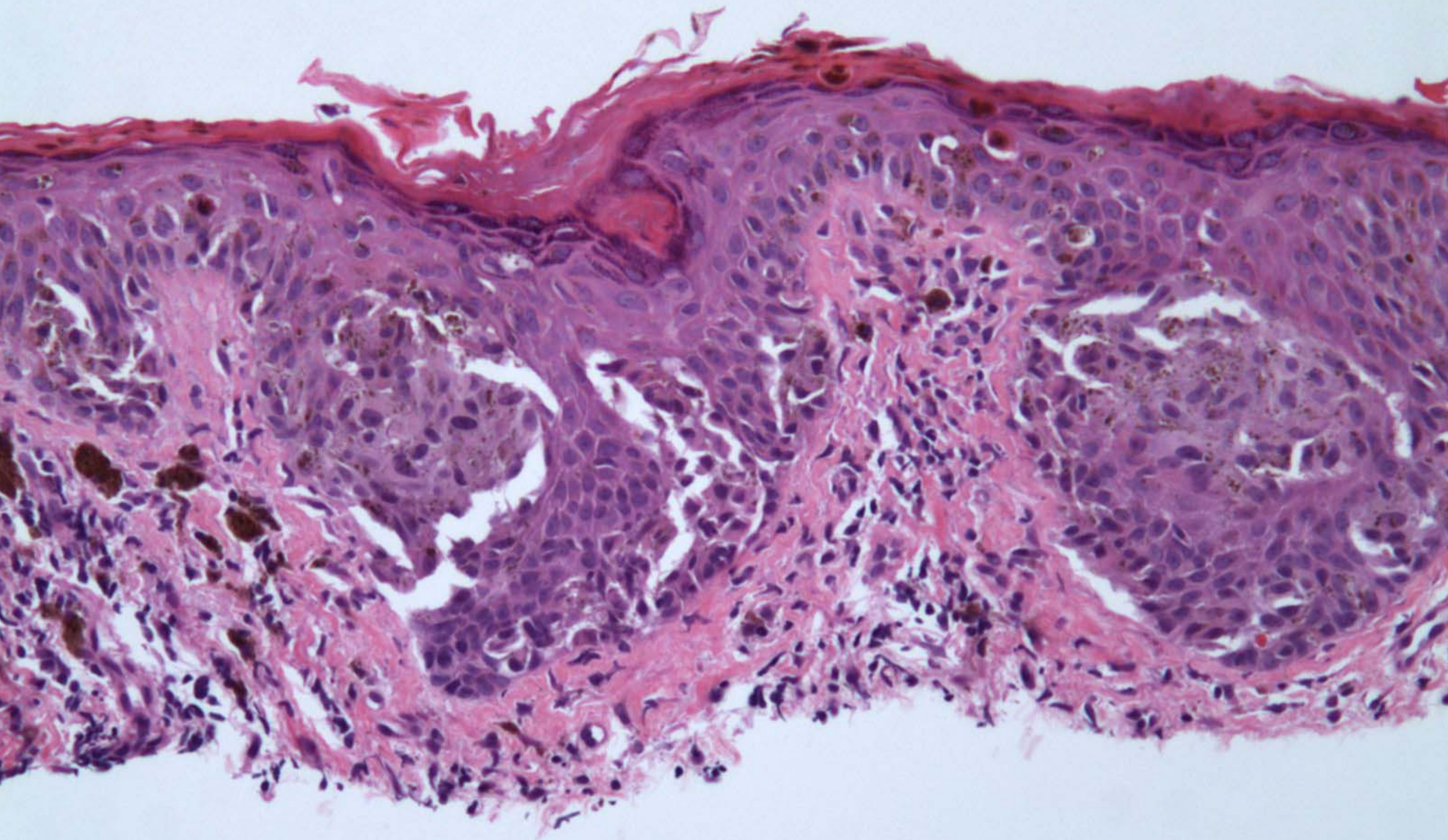
Histopathology

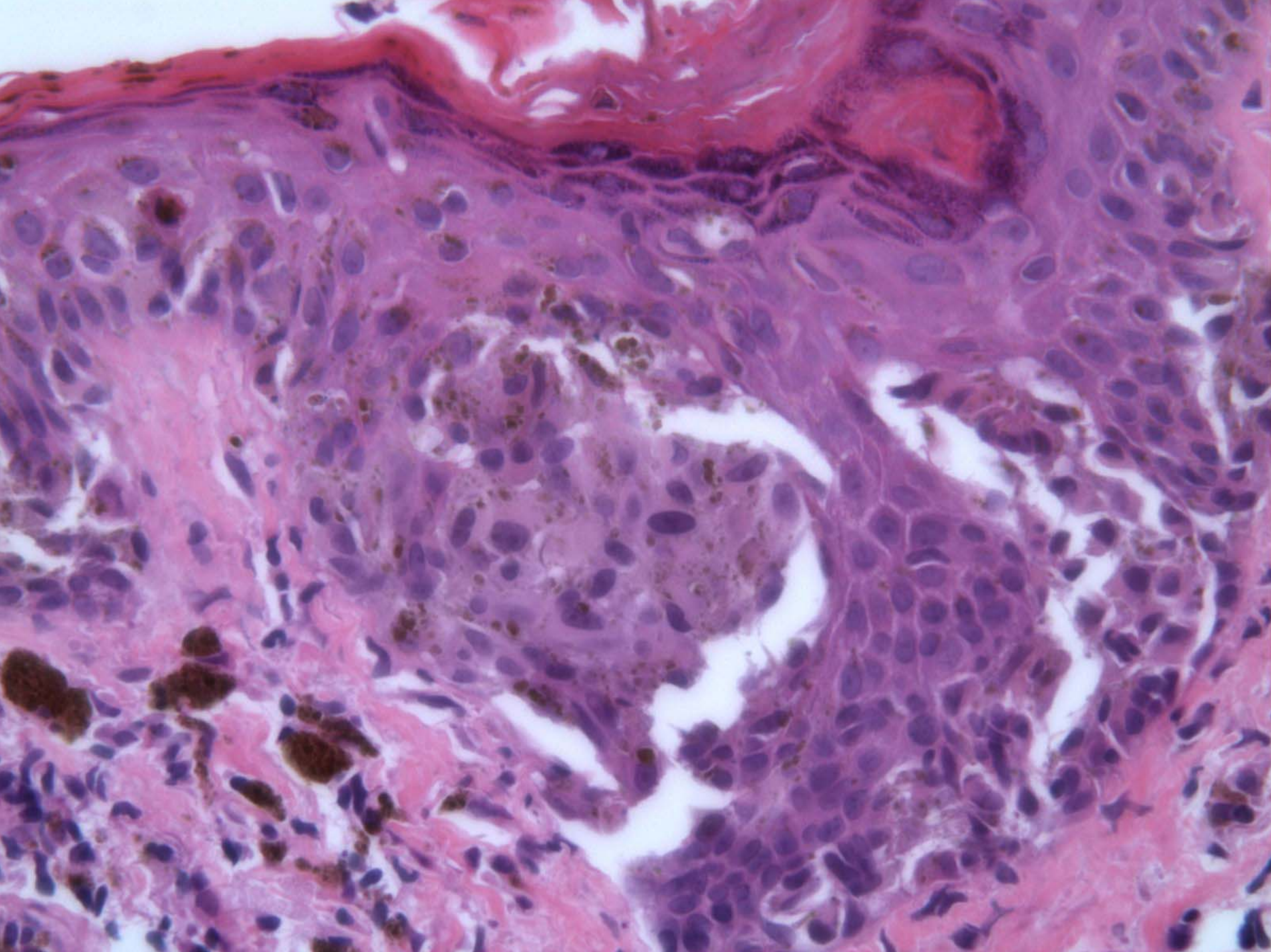


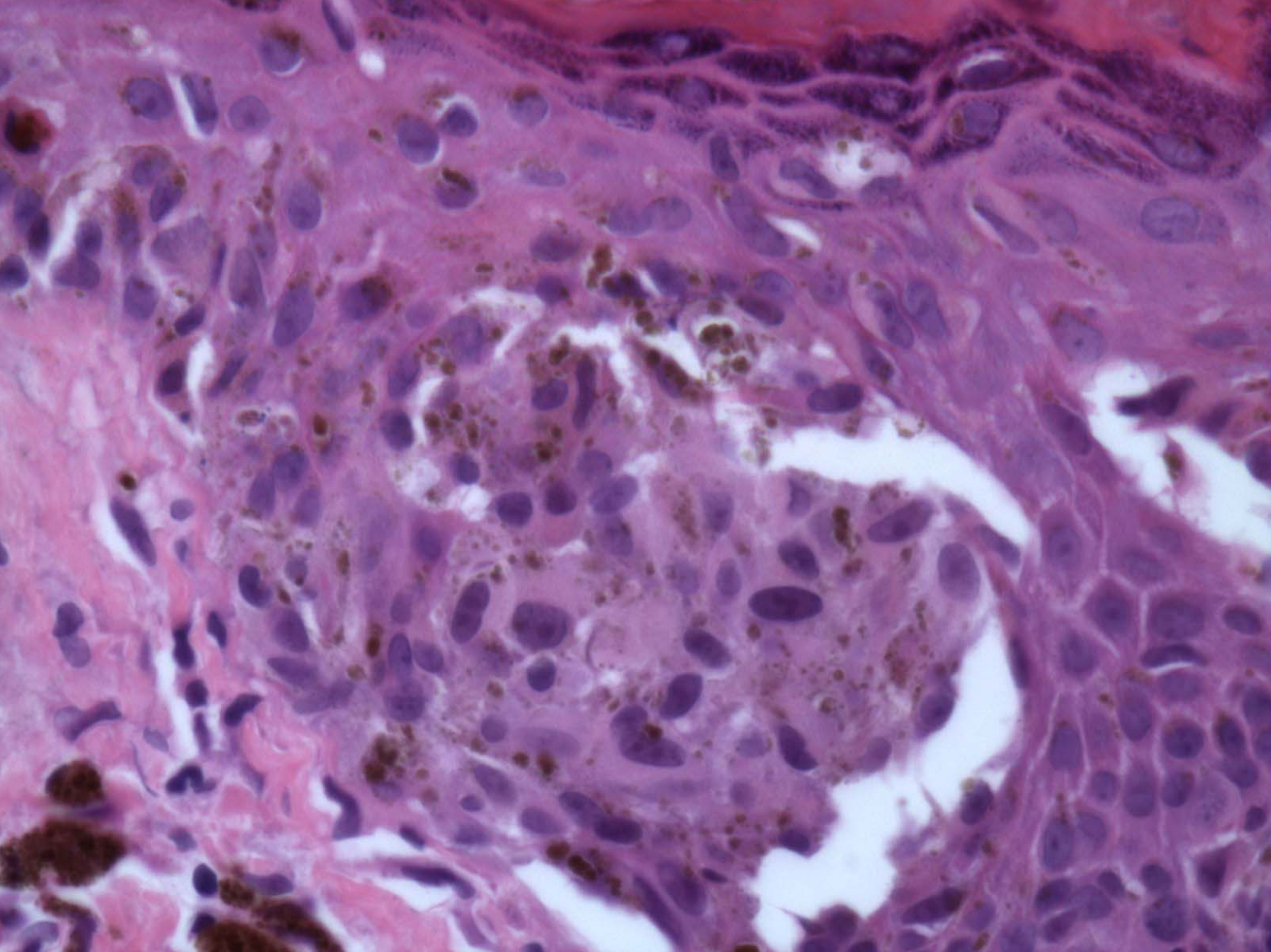
- Atypical melanocytes spreading along the basal layer arising in atrophic epidermis and solar elastosis
- Upward pagetoid spread less prominent
- Prominent periappendegeal extension
- Multinucleated melanocytes (starburst giant cells)

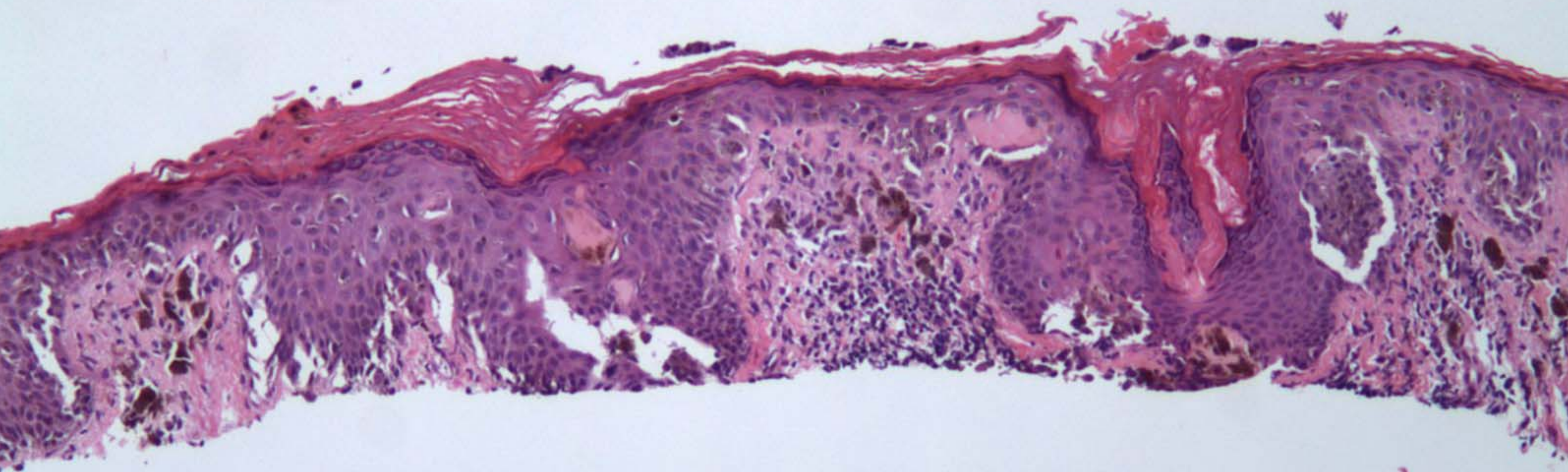


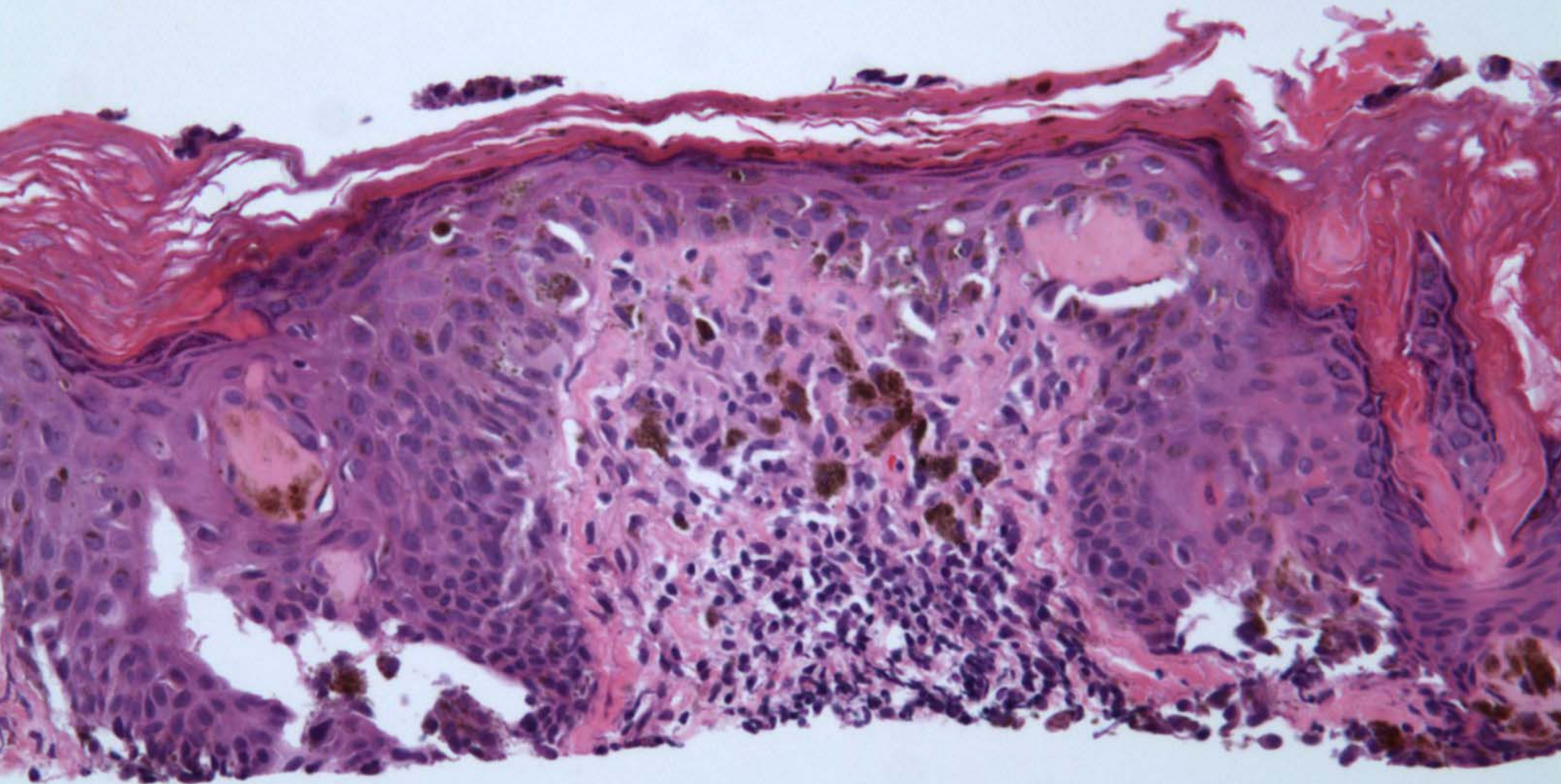


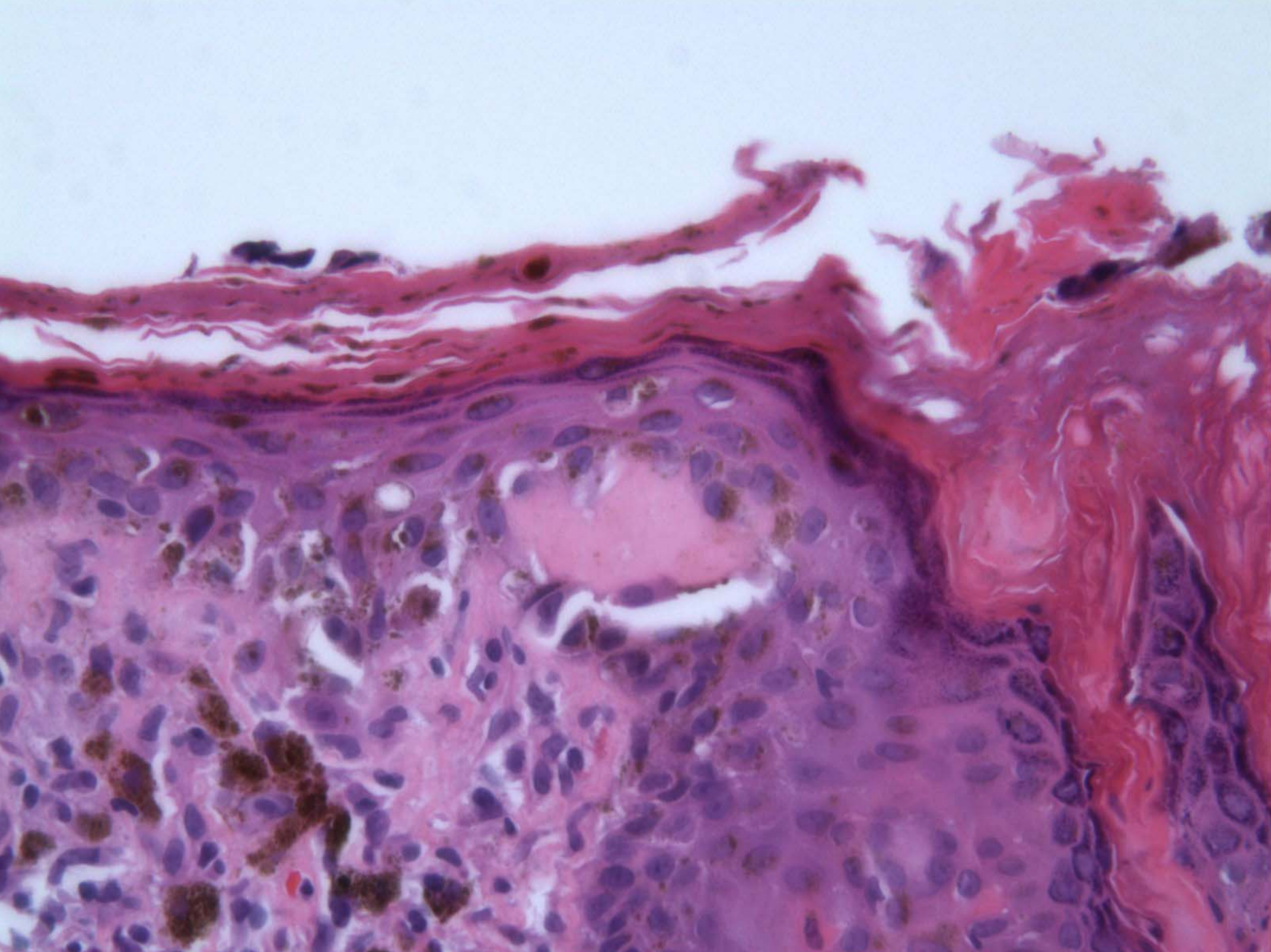


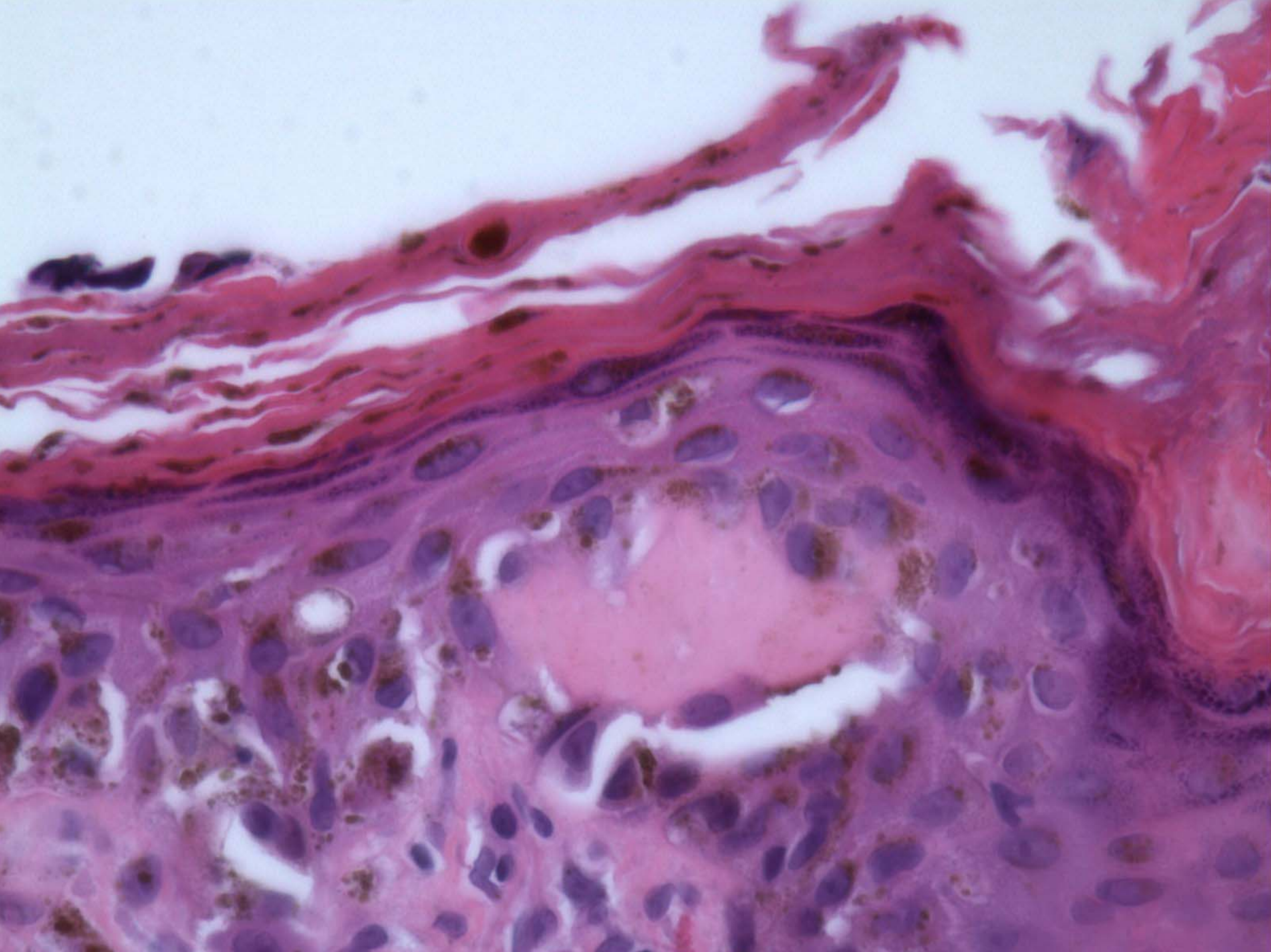






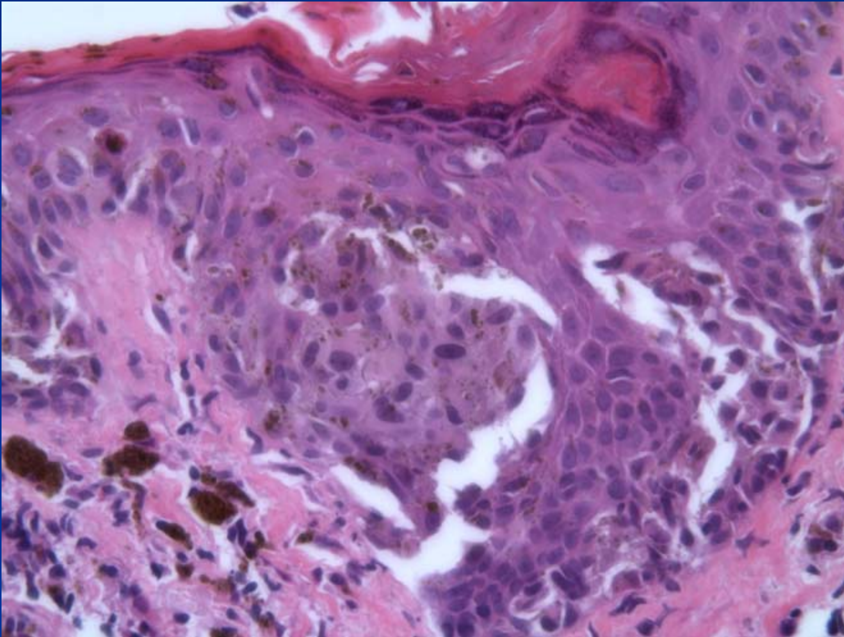






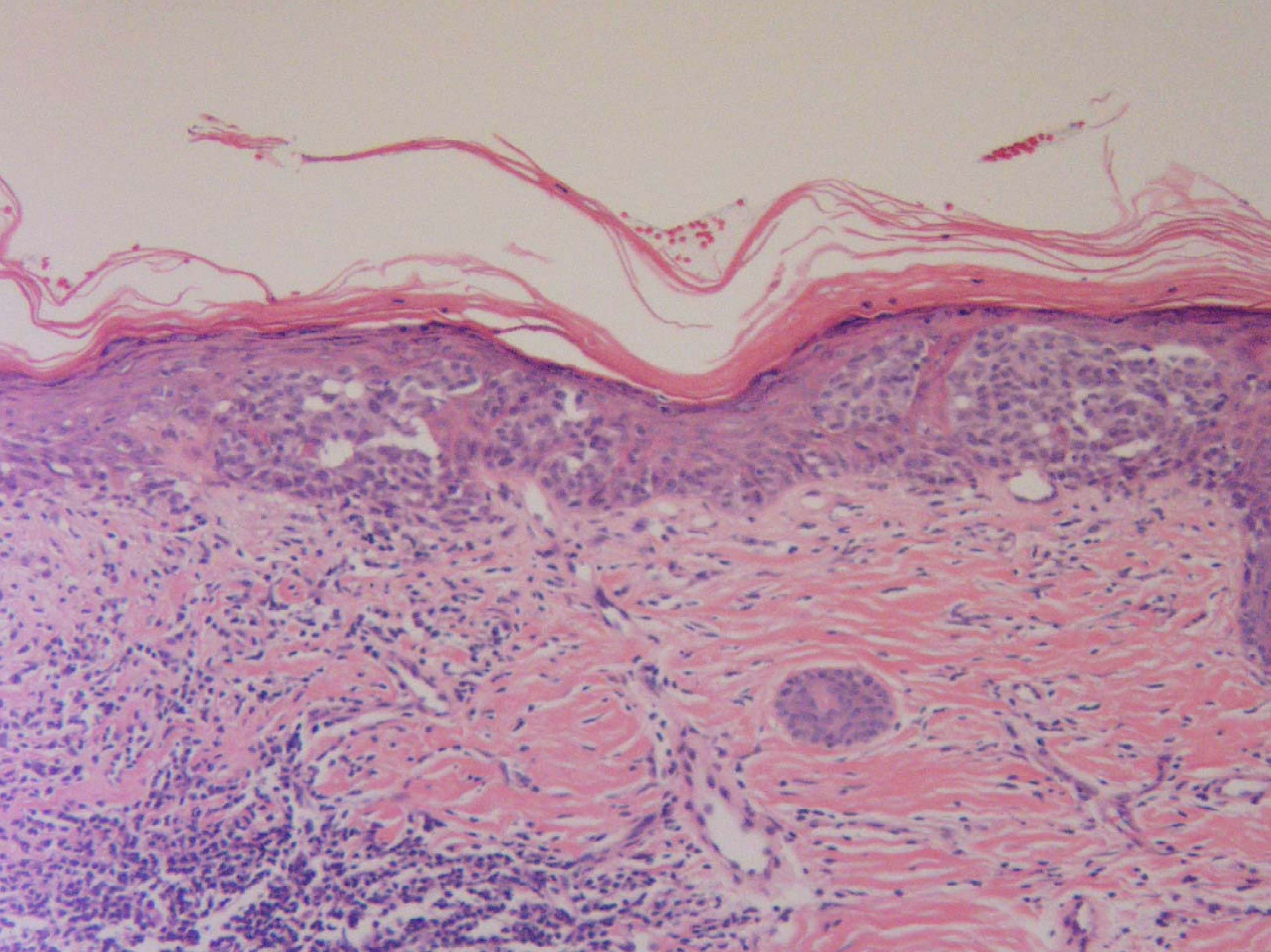
Malignant Melanoma in Situ Arising with a Superficial Atypical Spitz Tumor

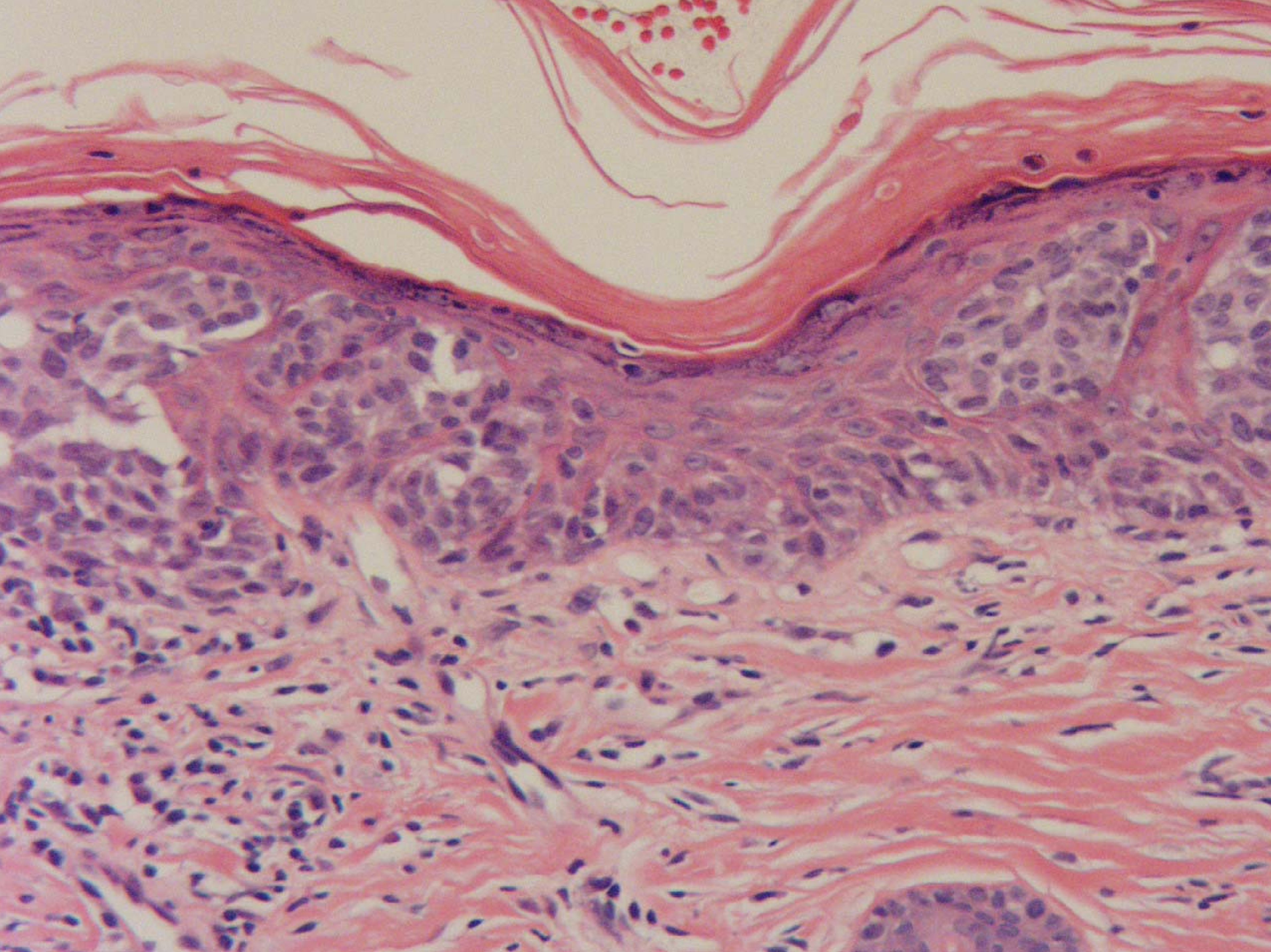
Histopathology

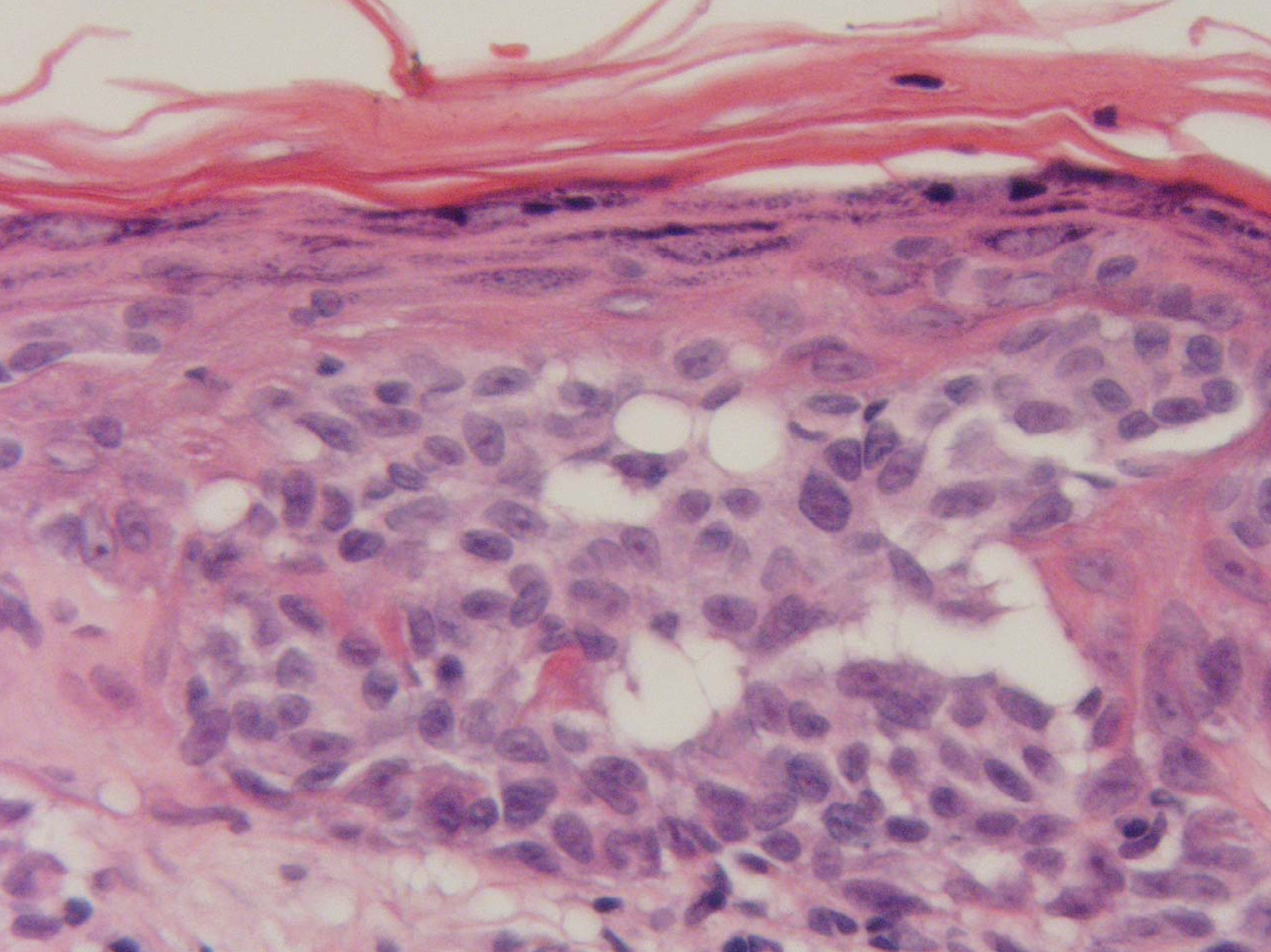


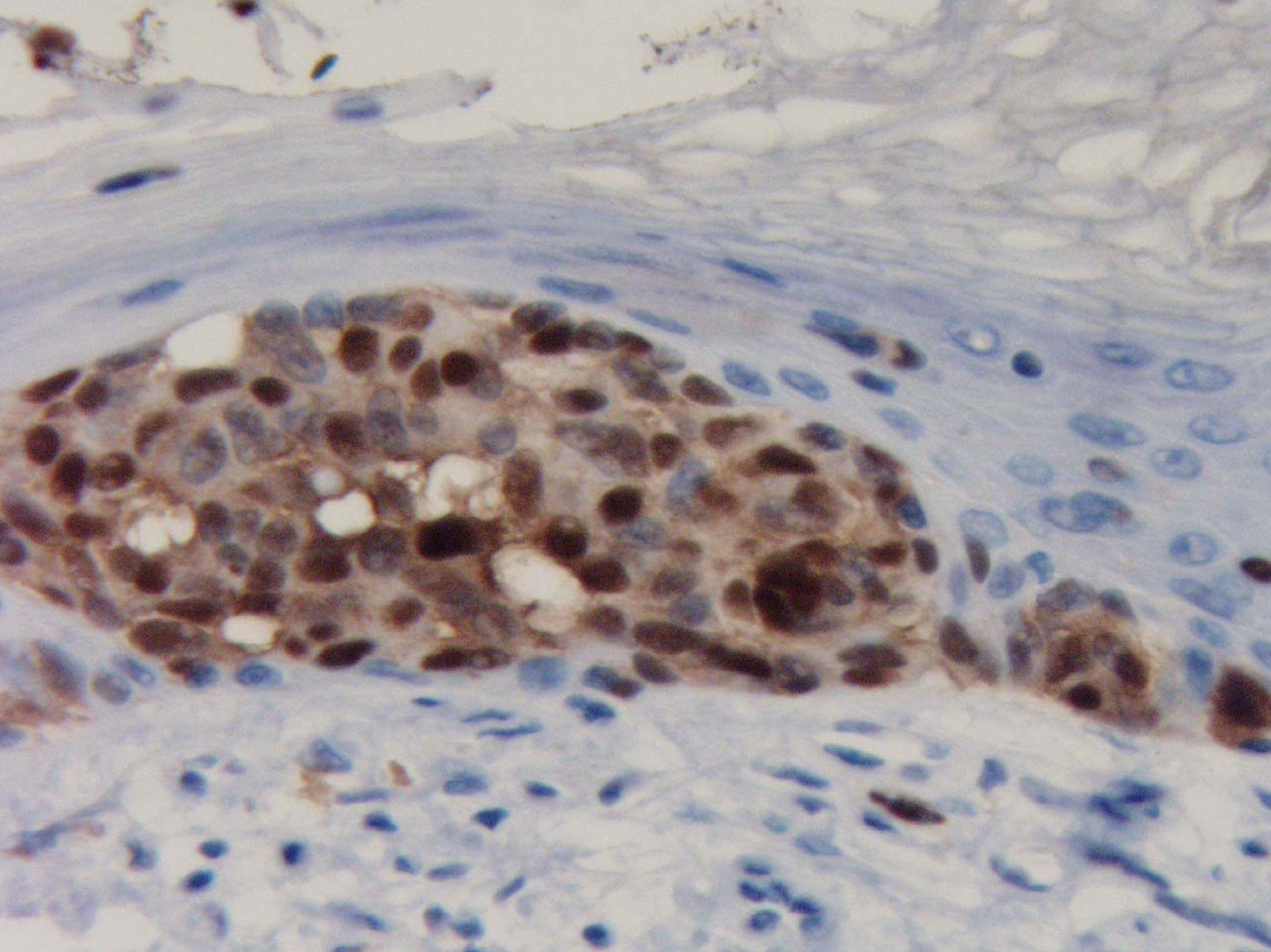
- Monomorphic spindled and epithelioid cytomorphology
- Prominent Kamino body
- High grade dysplasia
- 15 cases to date
- Young women
- Thigh area

Magro CM *etal*

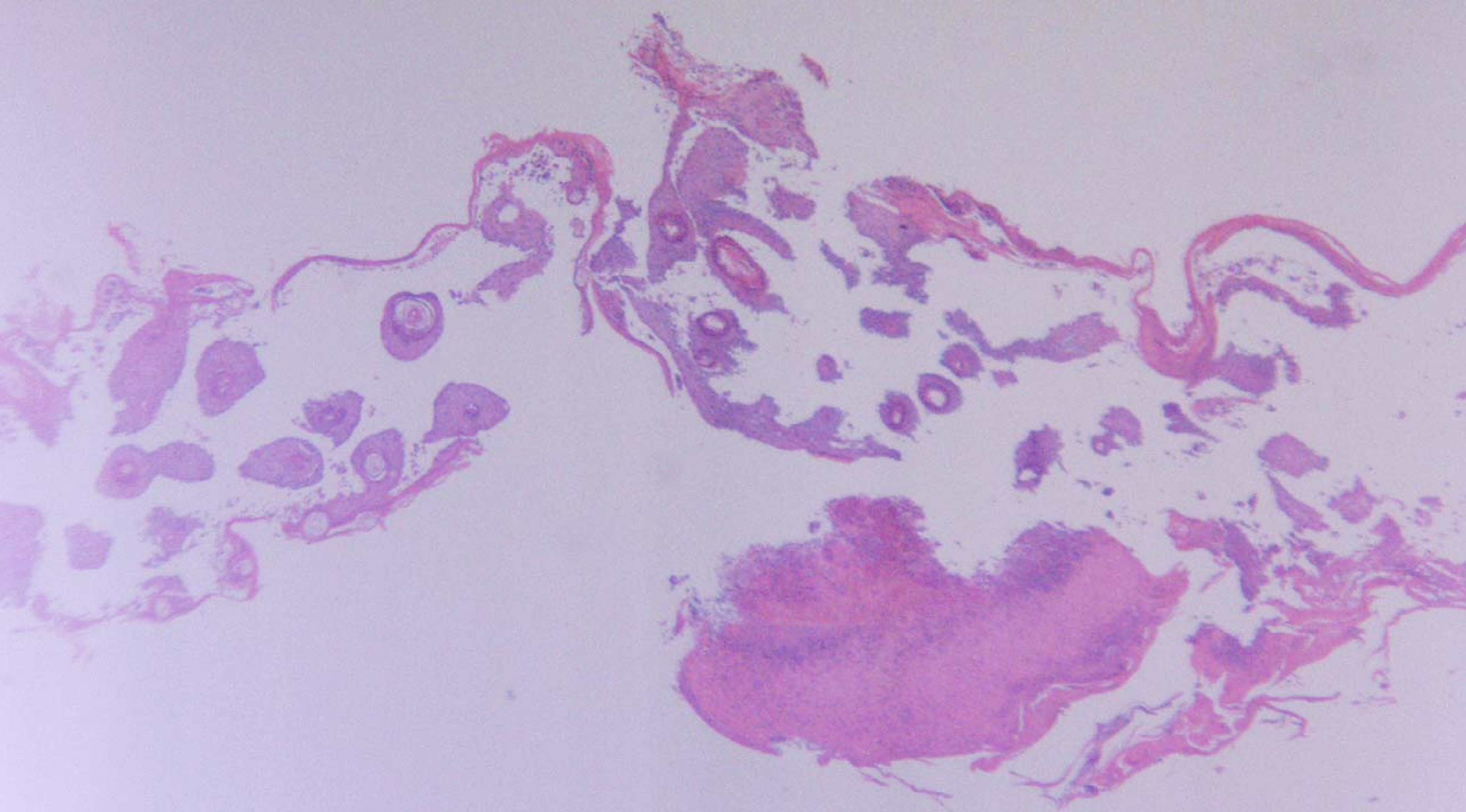


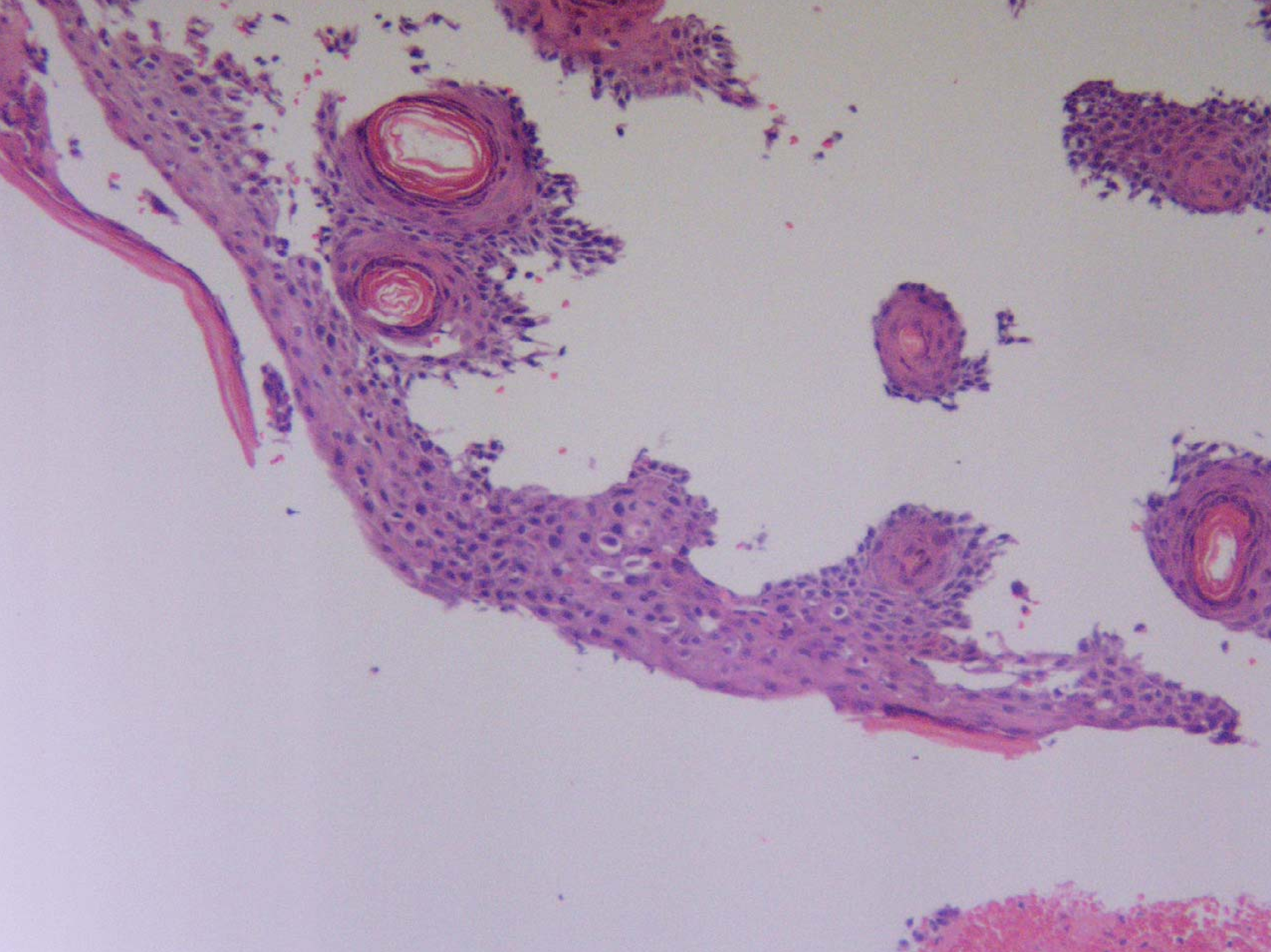


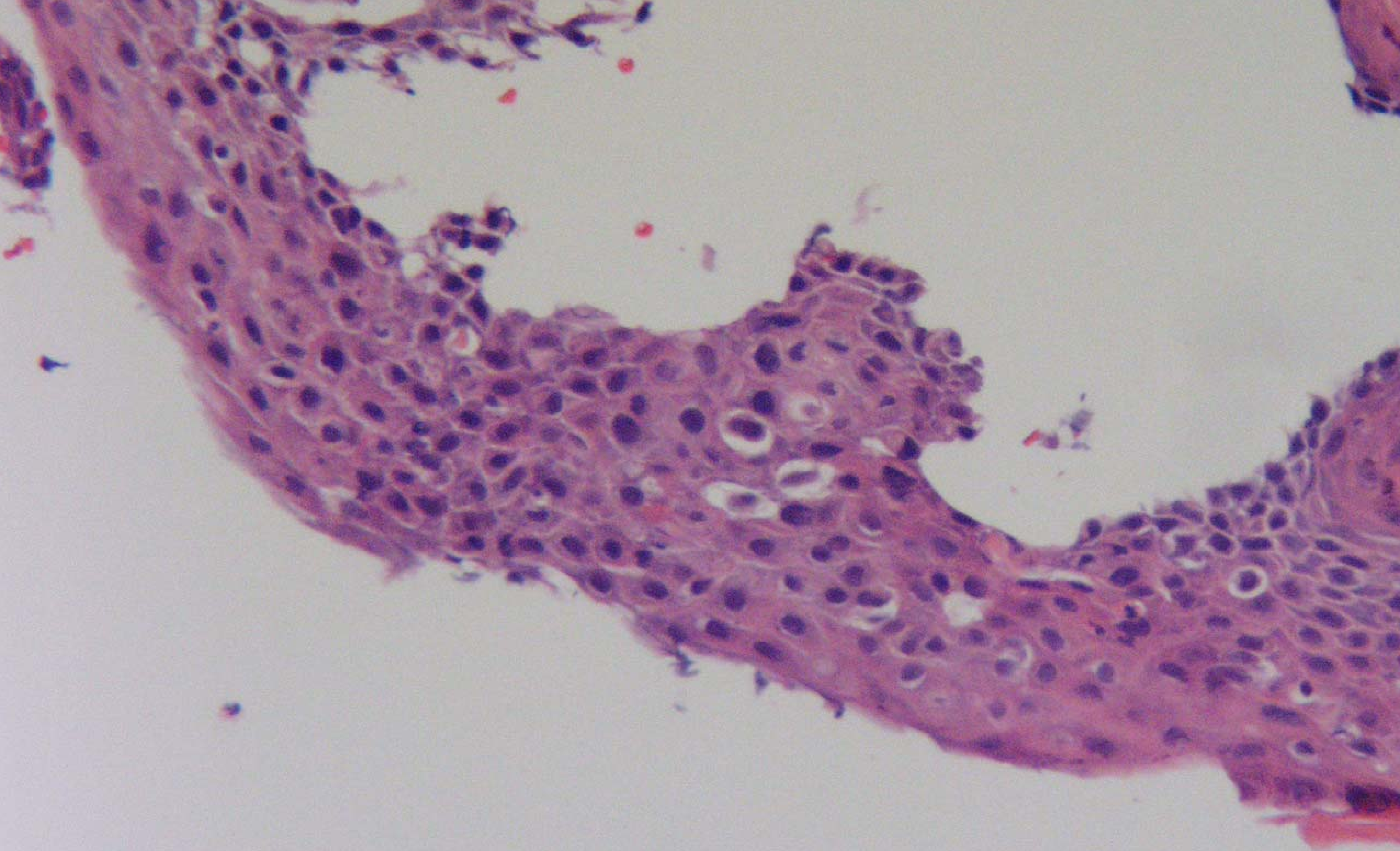


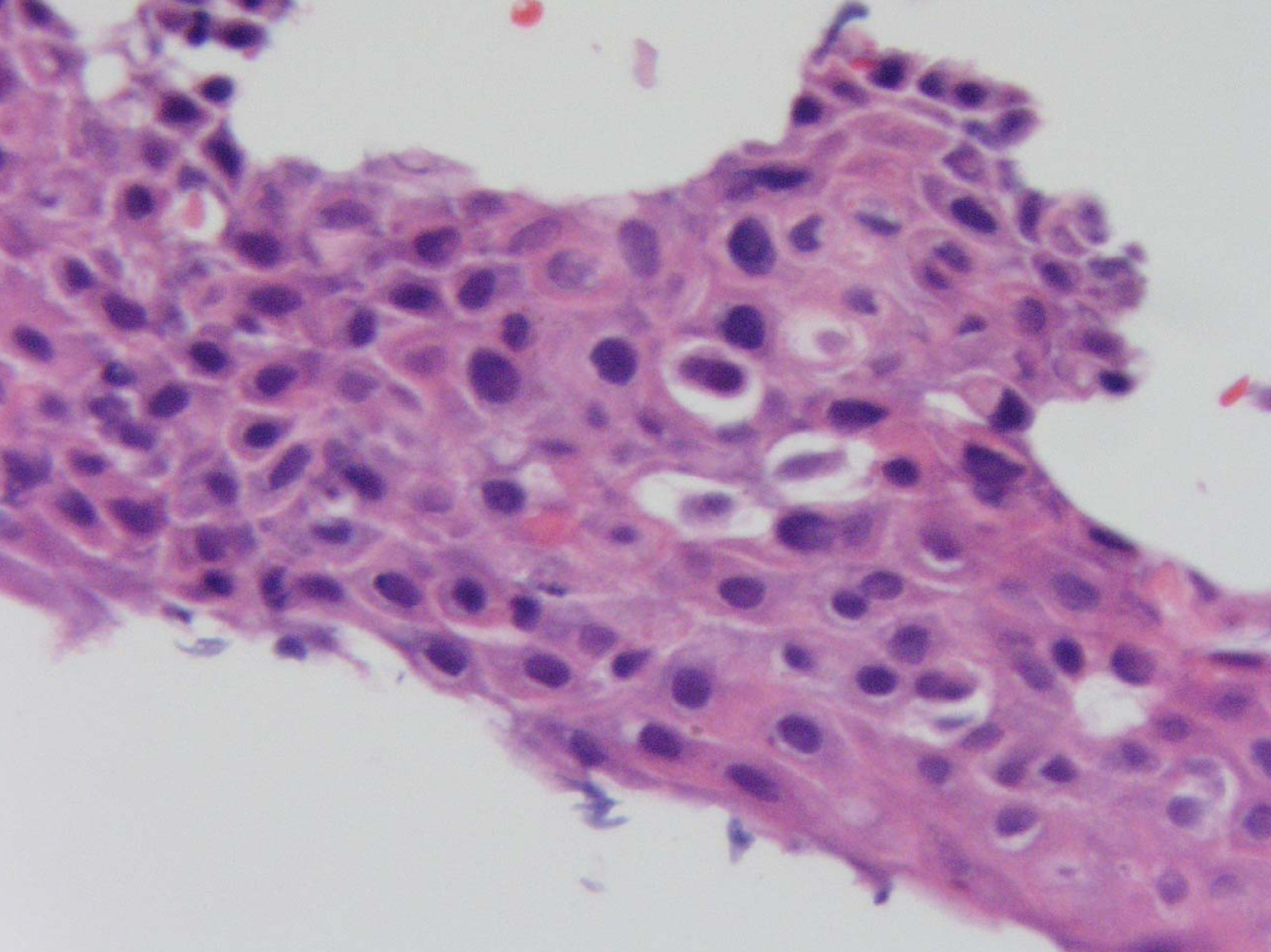


Amelanotic Melanoma in Situ



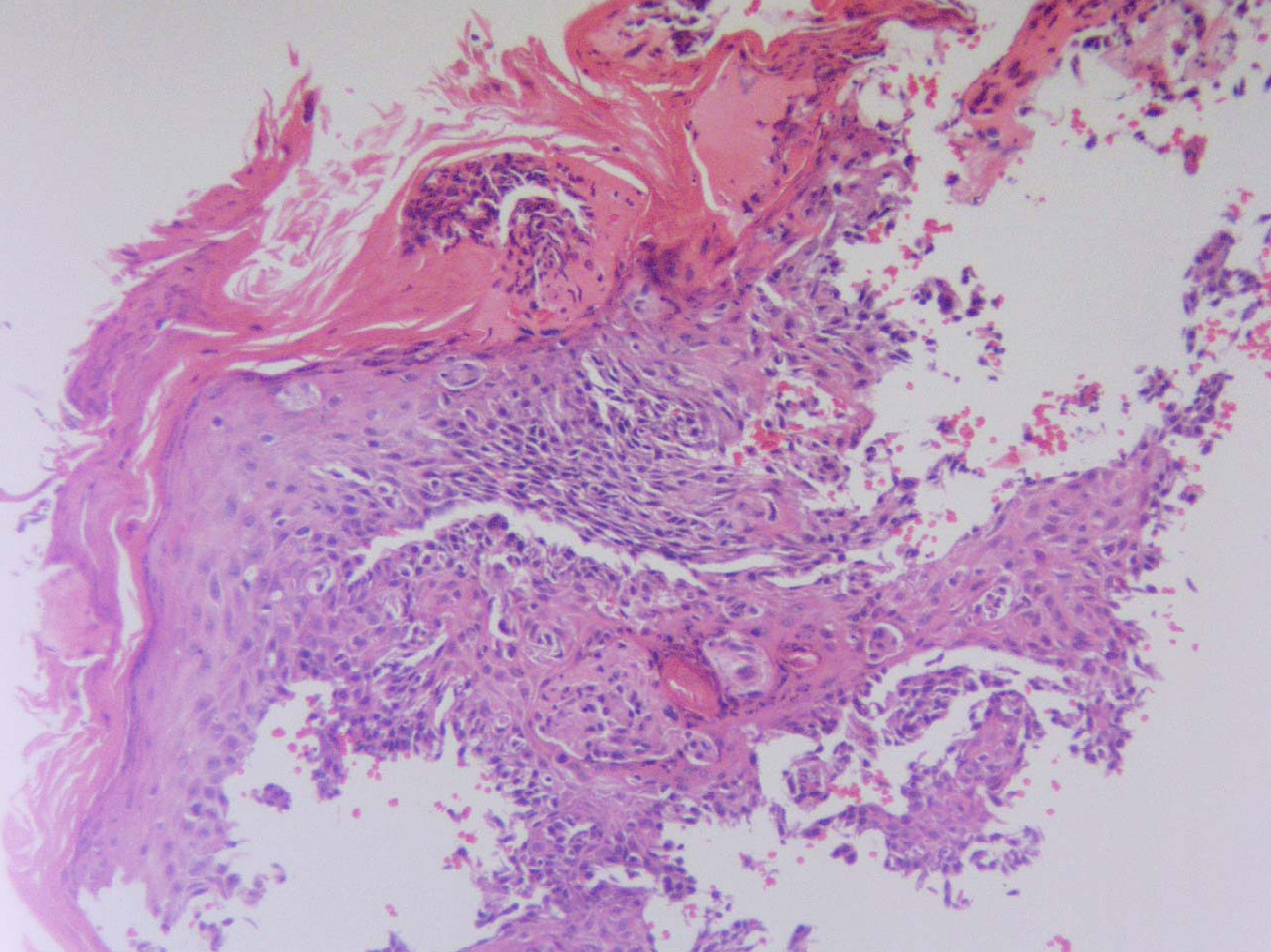


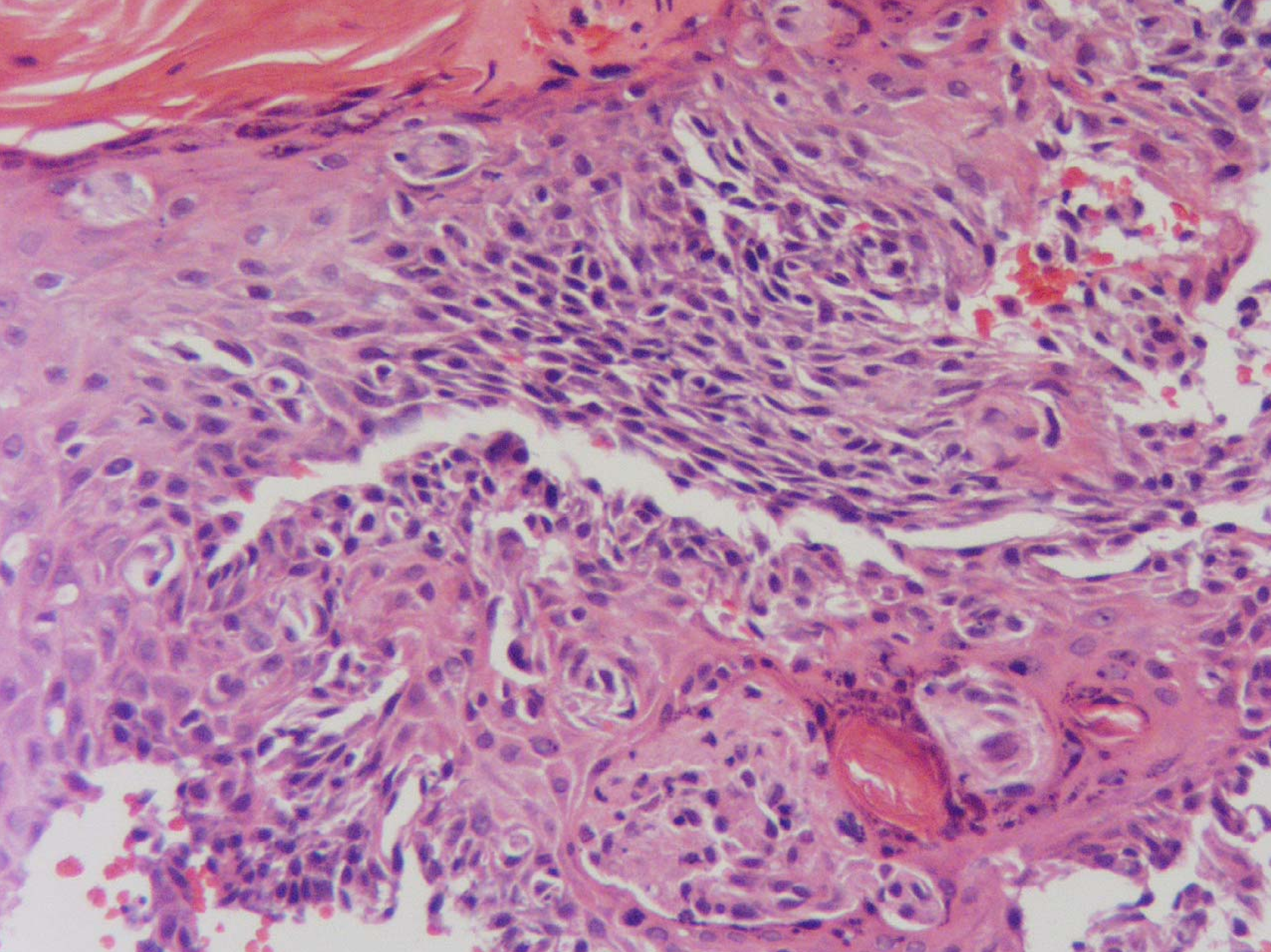


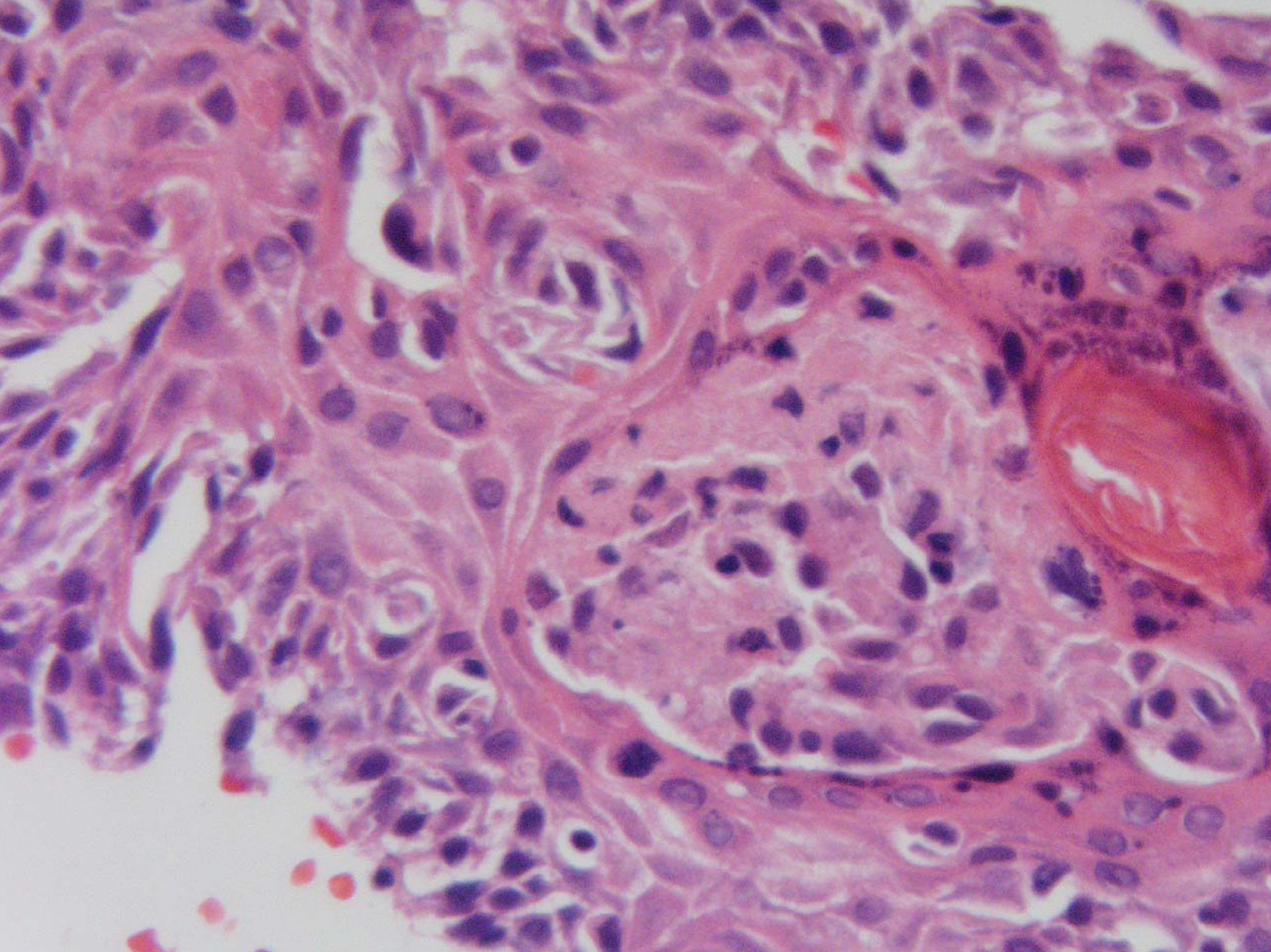


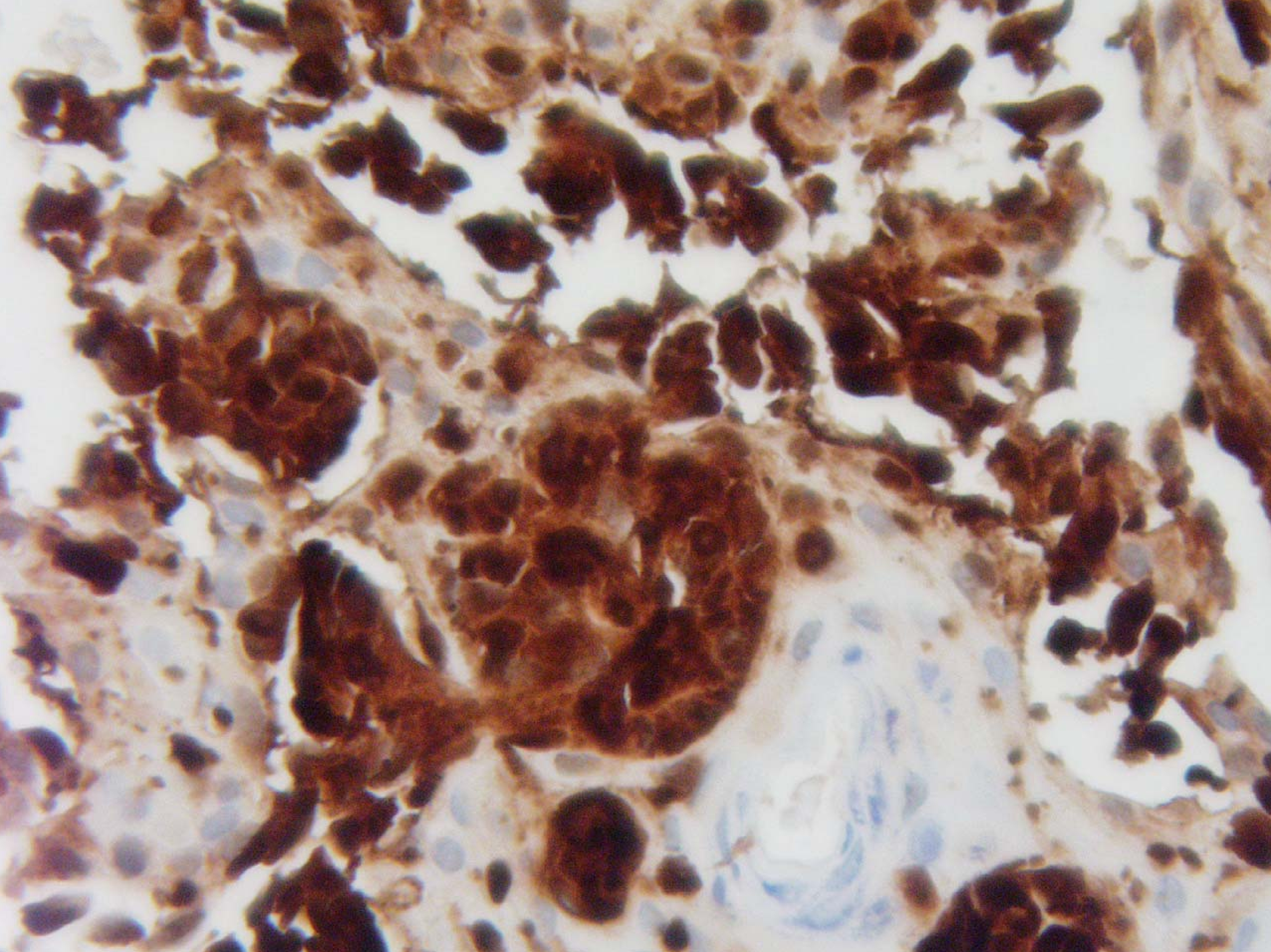
Original Dx-Actinic Keratosis

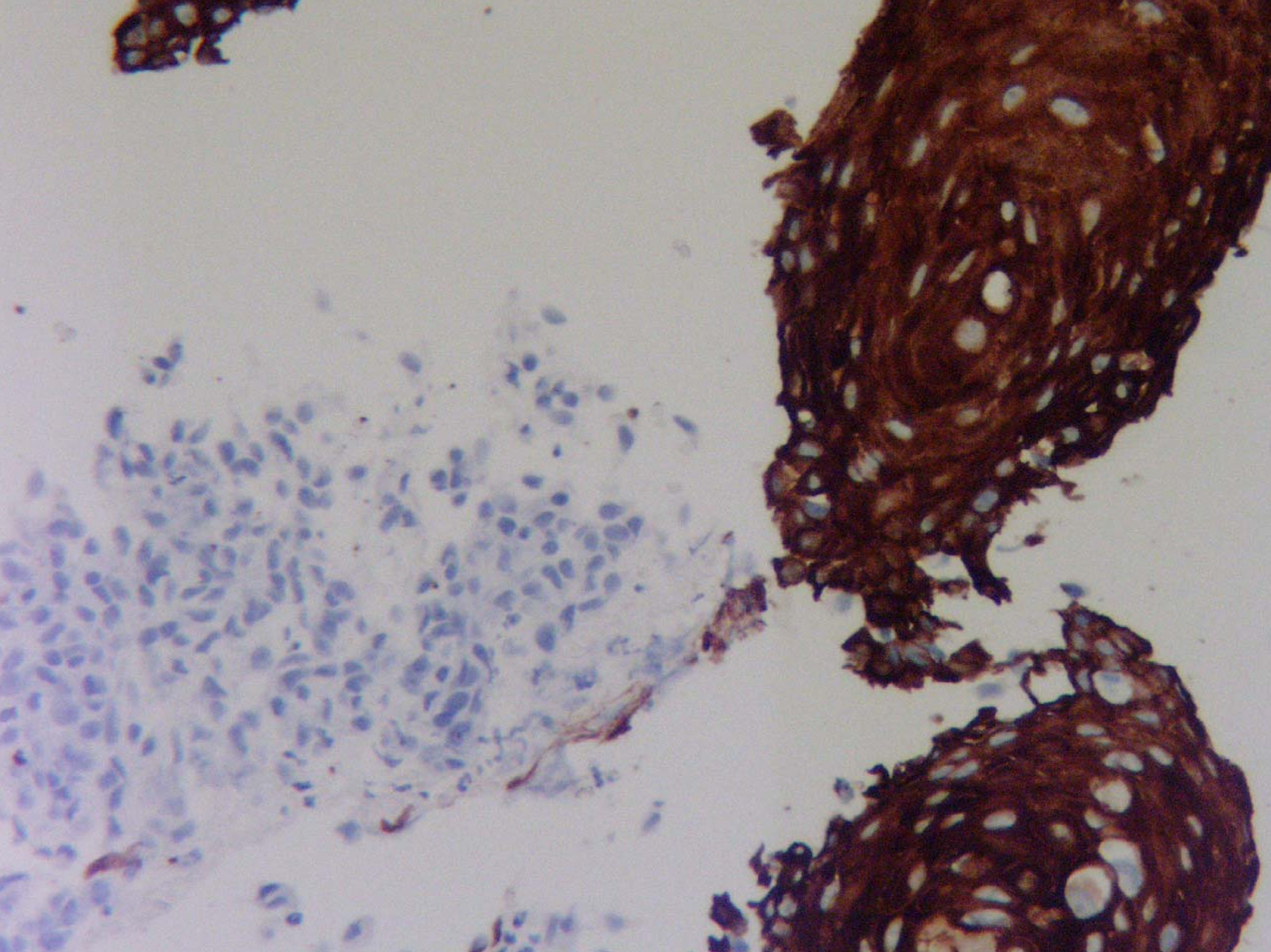
Excision to follow





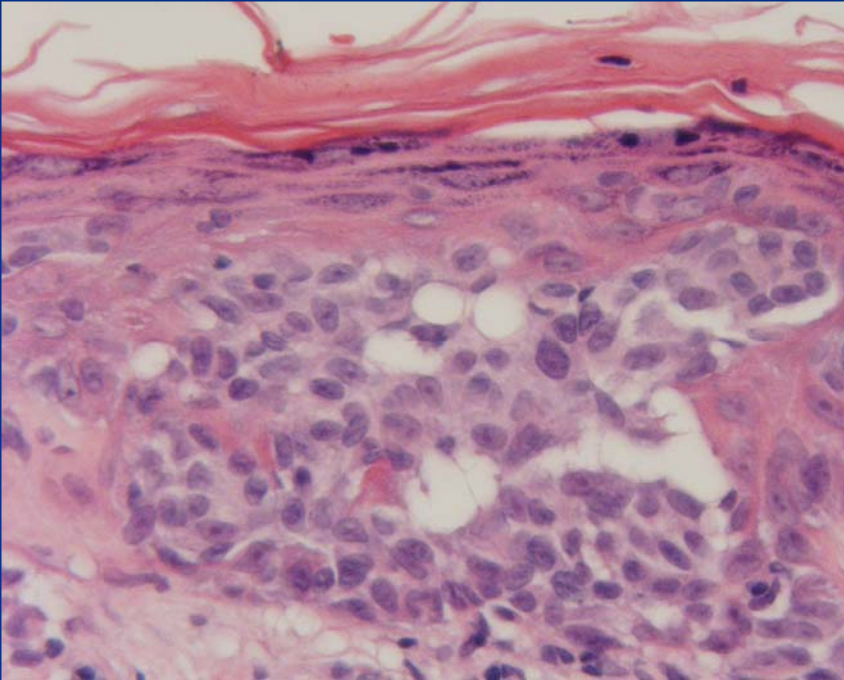




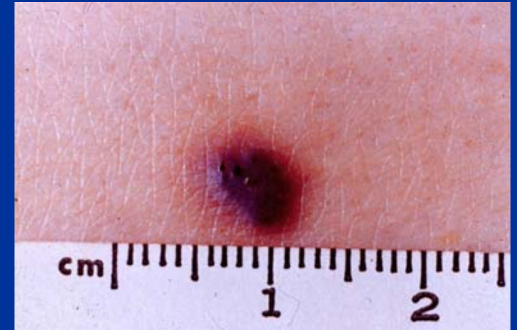


Amelanotic Melanoma in Situ

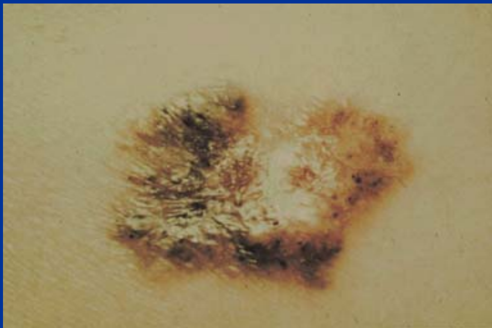
Histopathology



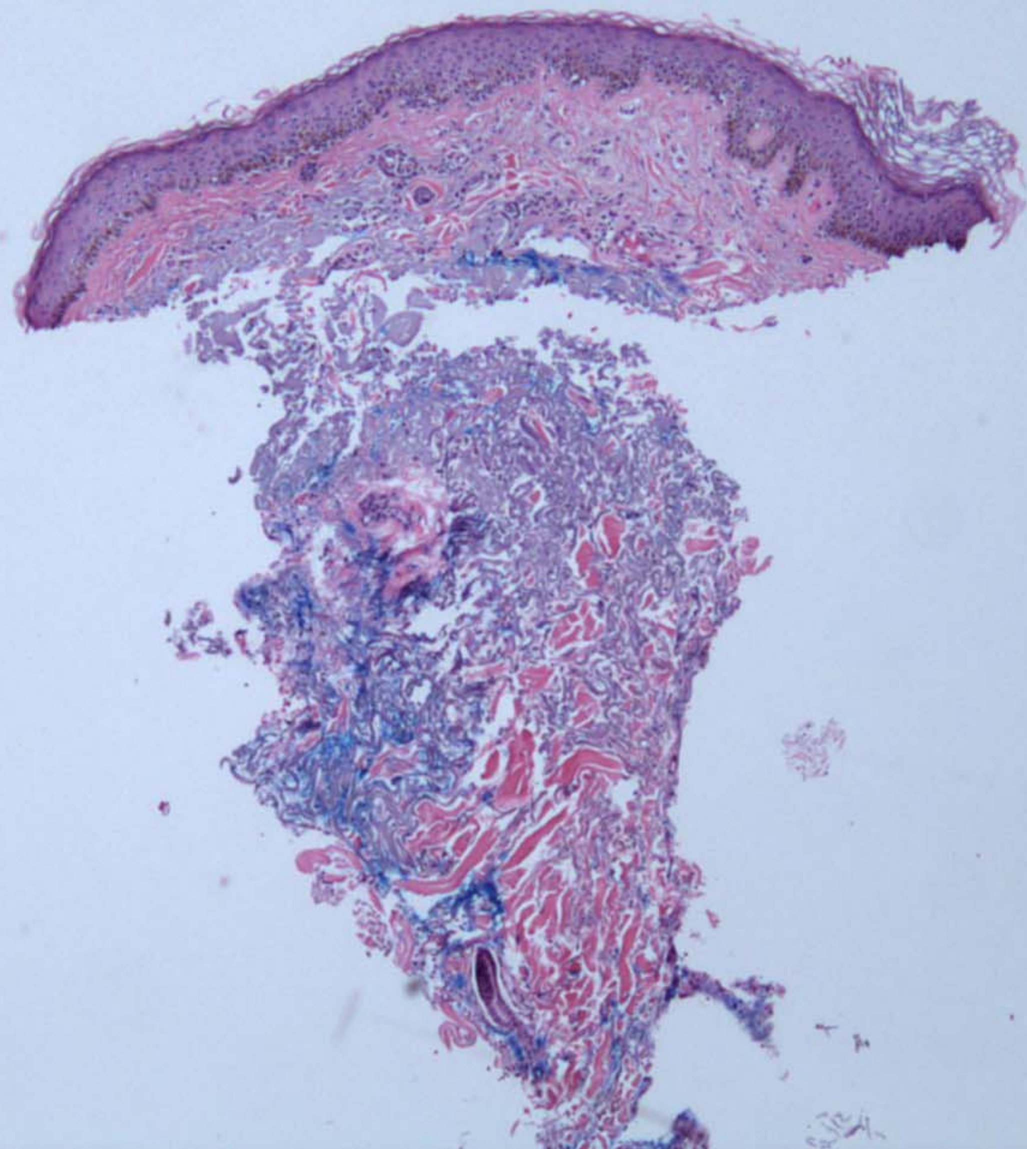
- Conventional morphology of melanocytes but lacking pigment
- DDX: Paget’s disease, Bowen’s disease, AK
- Confirm with S100/Mart1

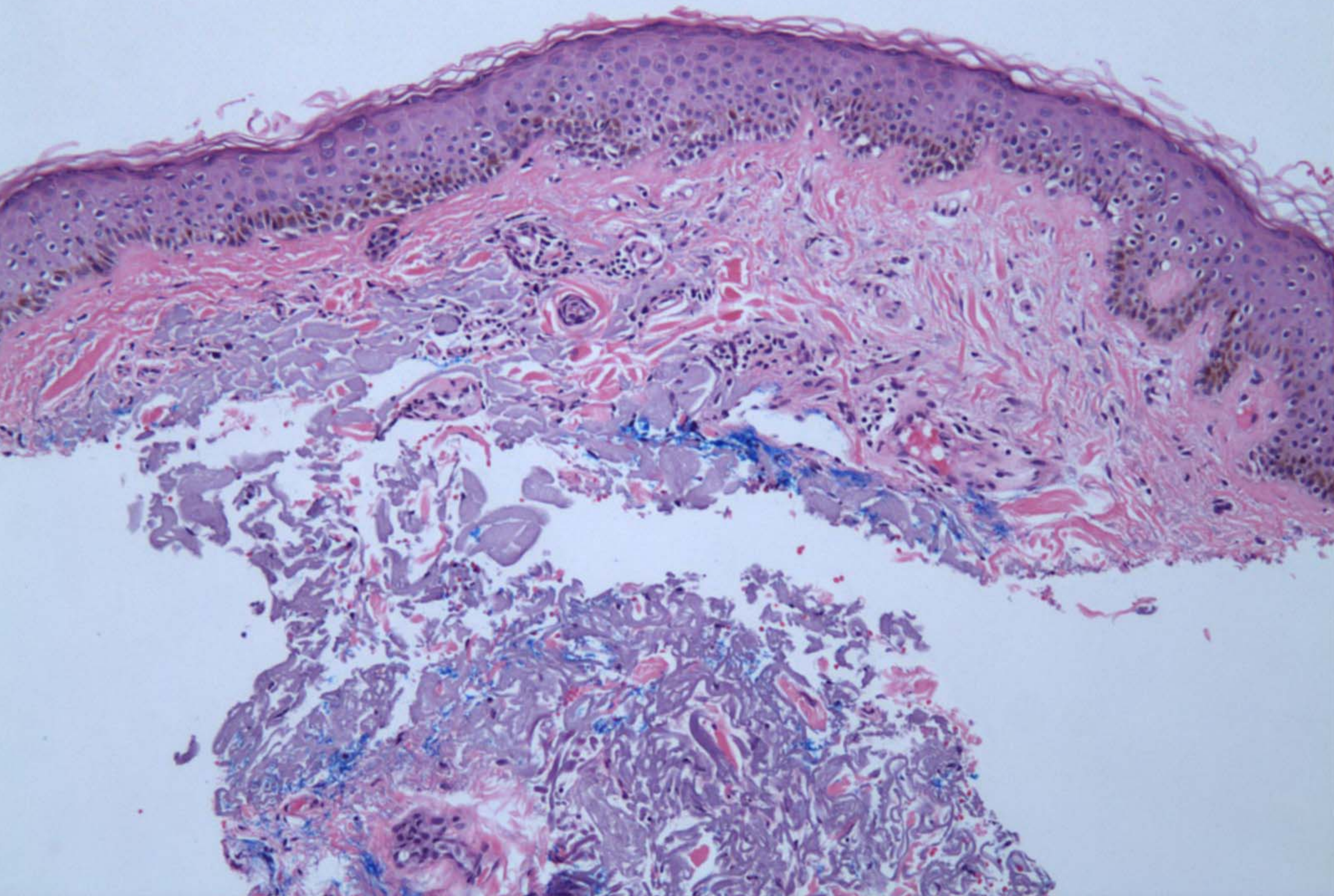


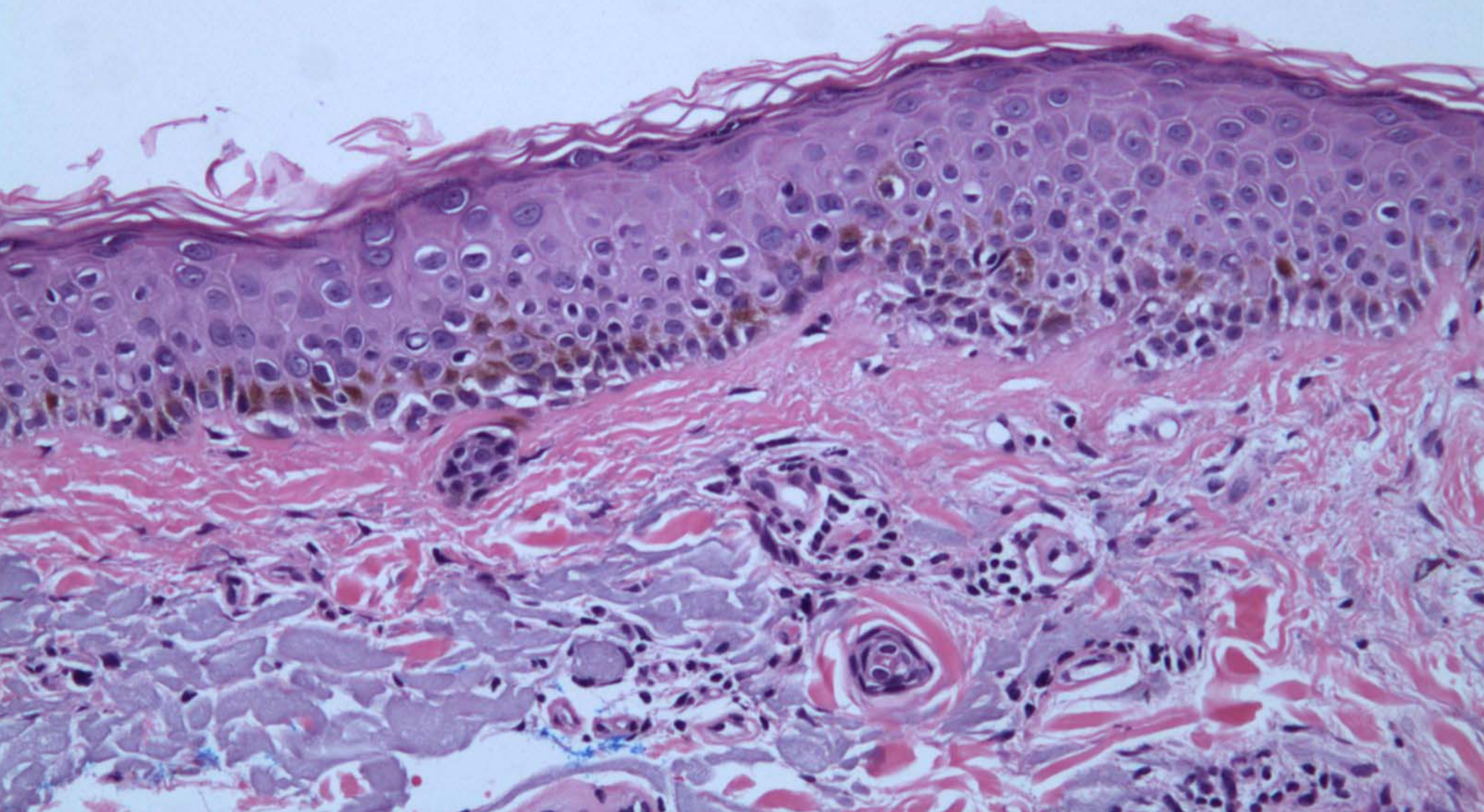
Mimics of Melanoma in Situ

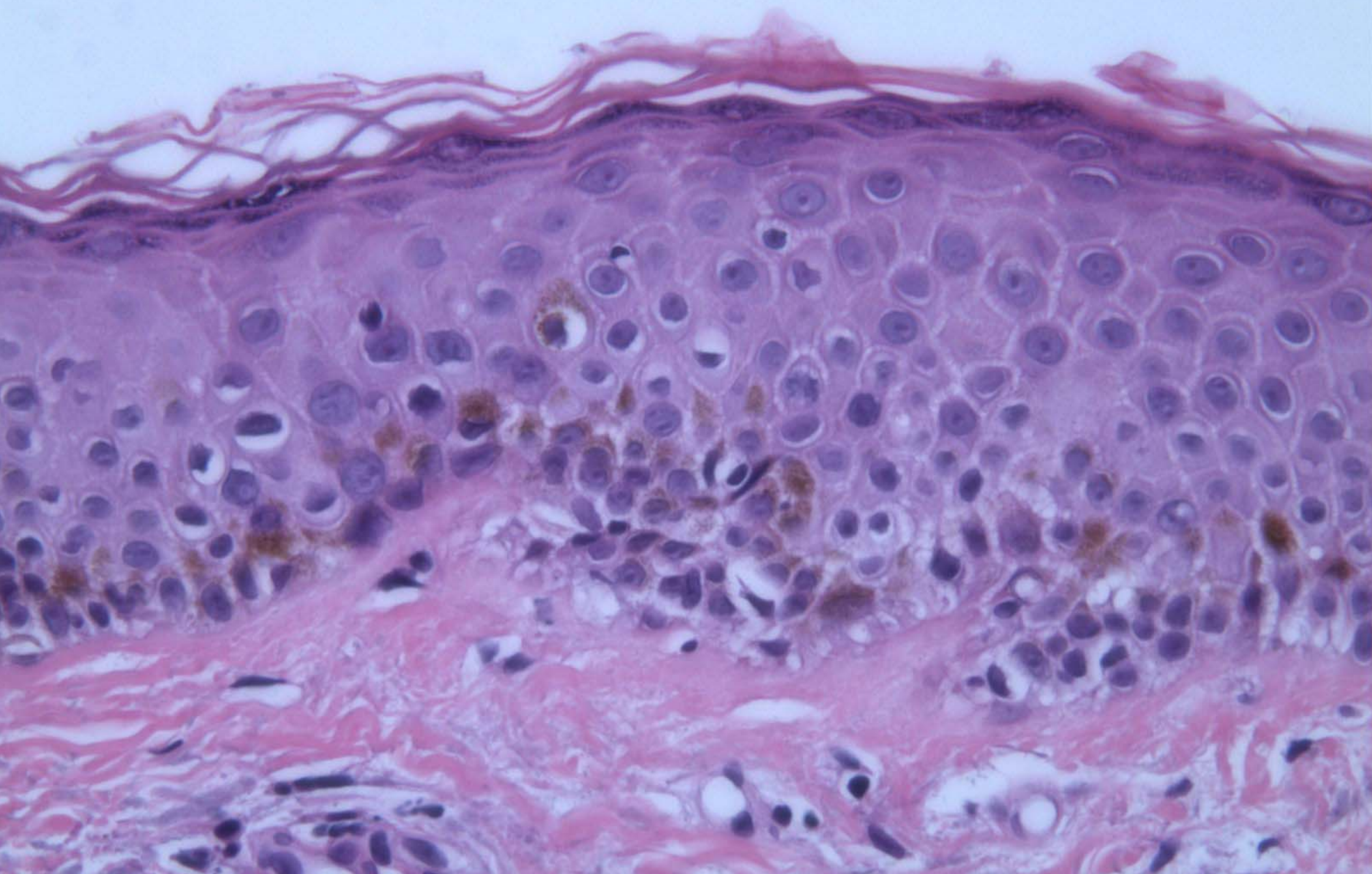


Re-Excision for Melanoma in Situ

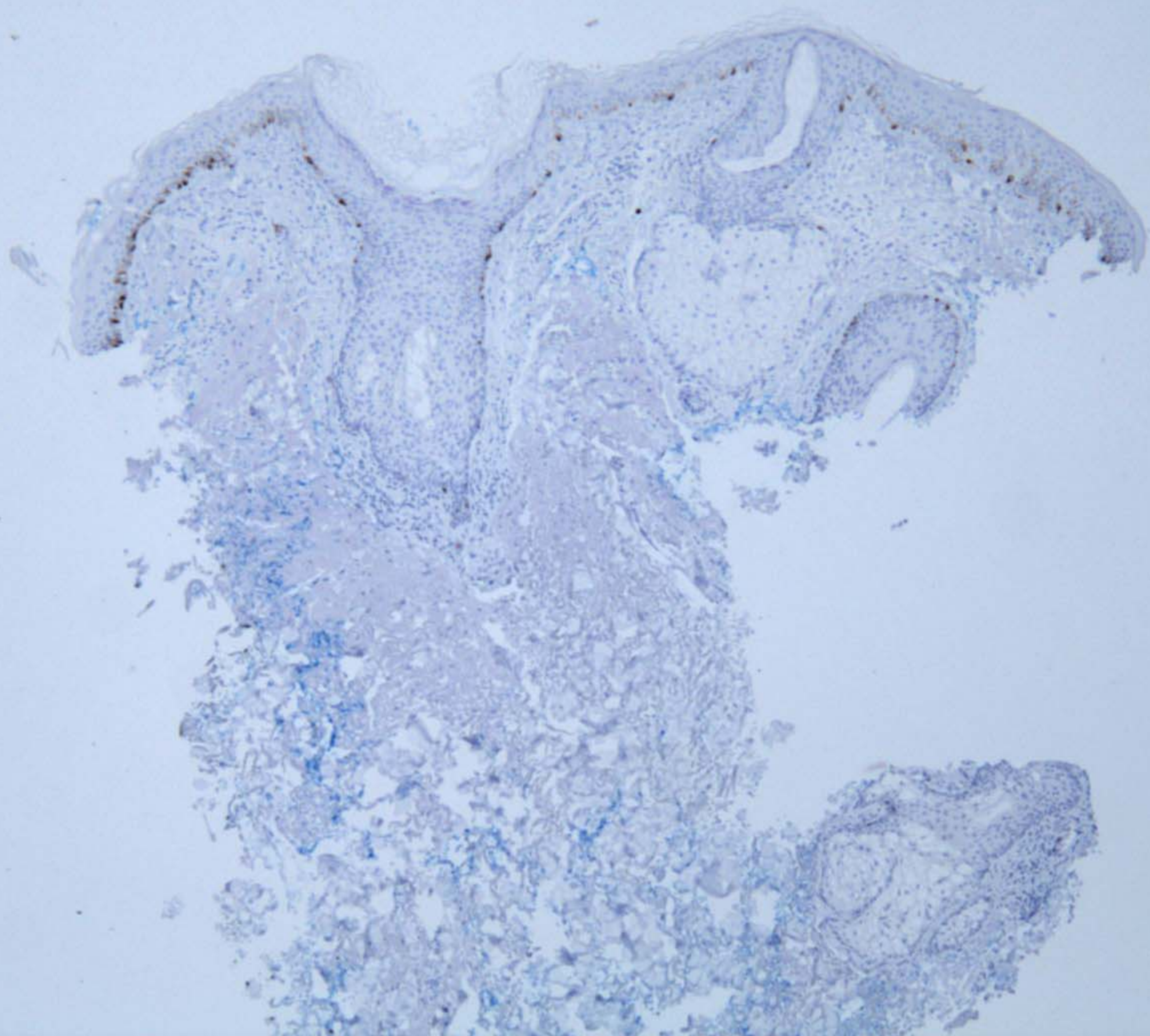


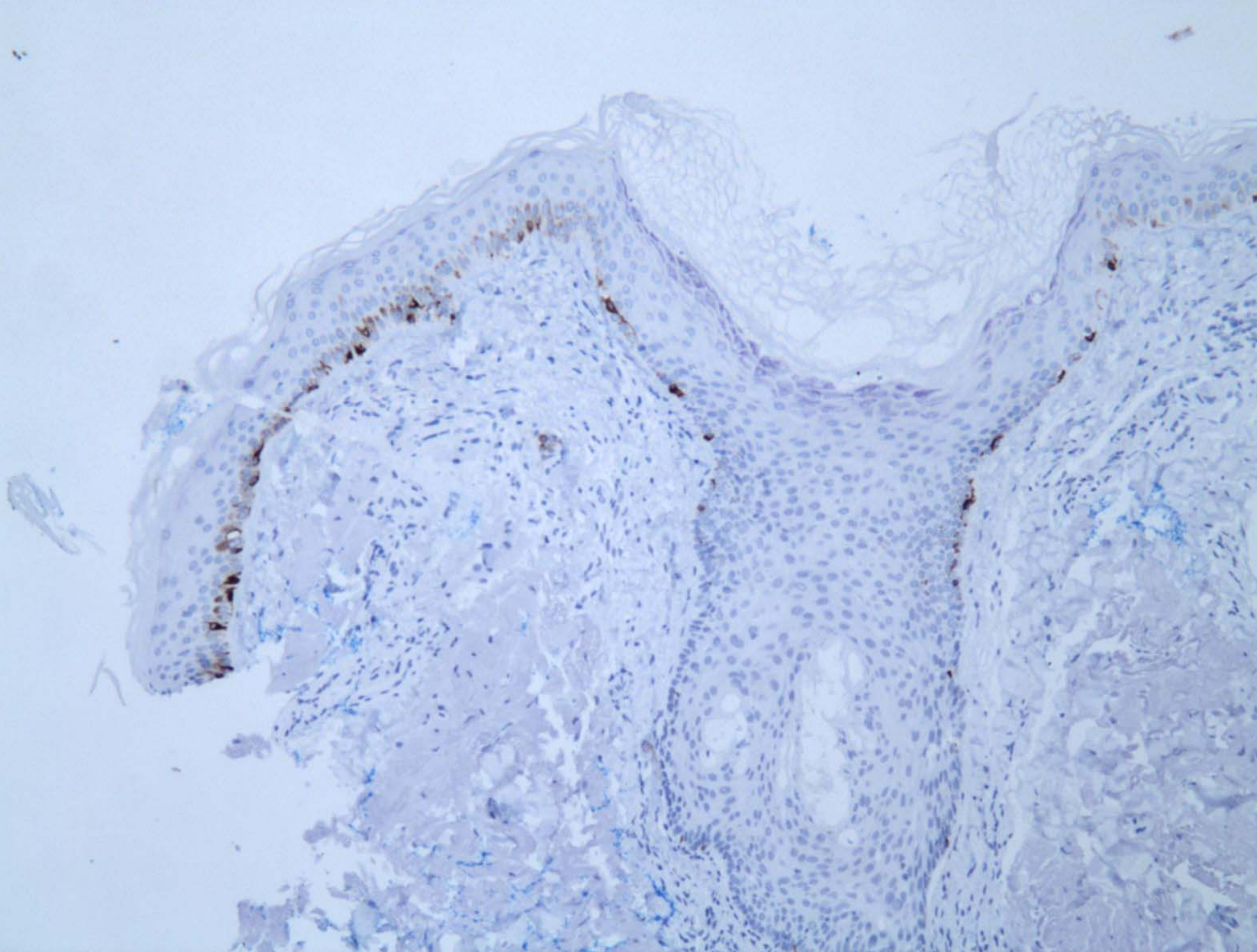


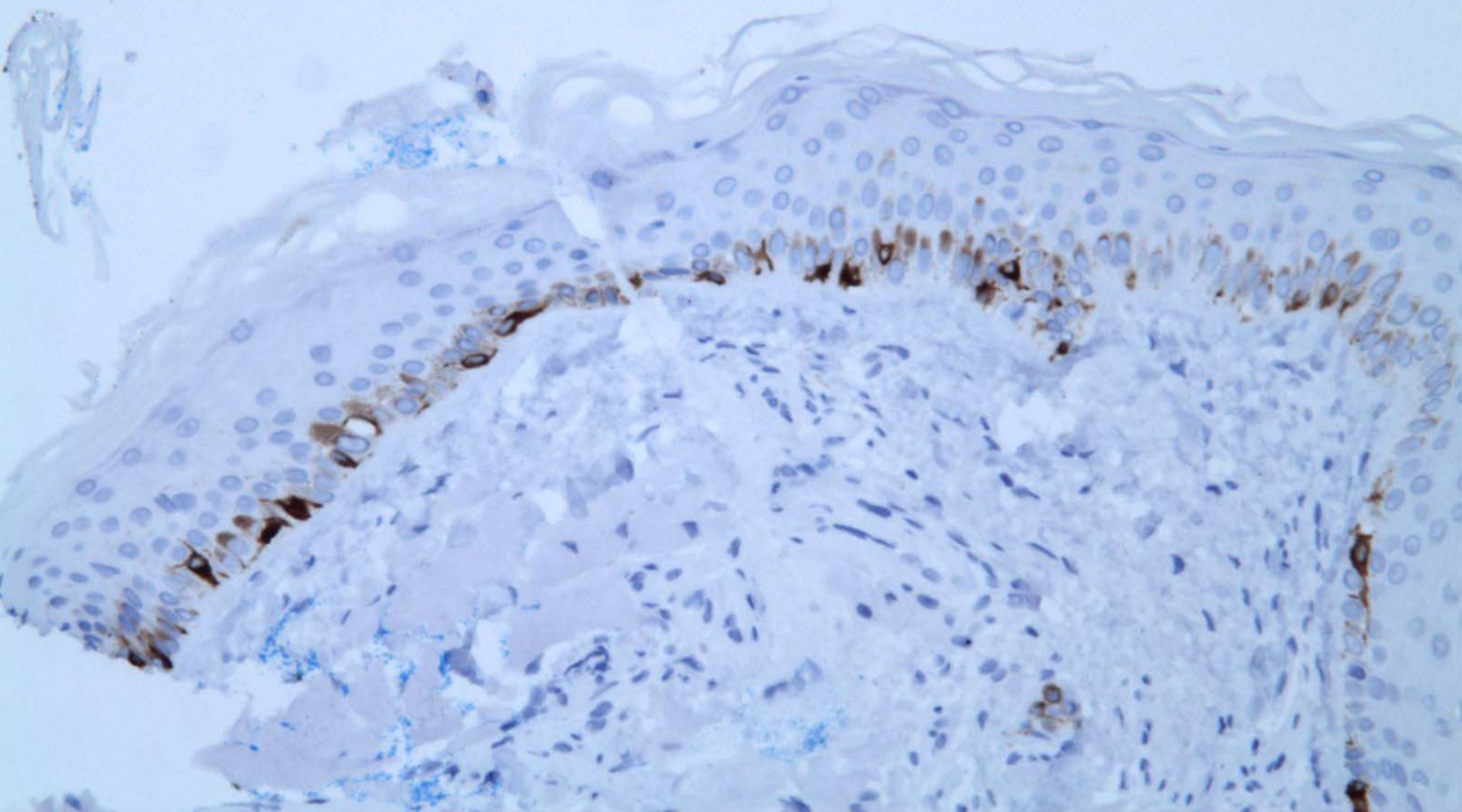


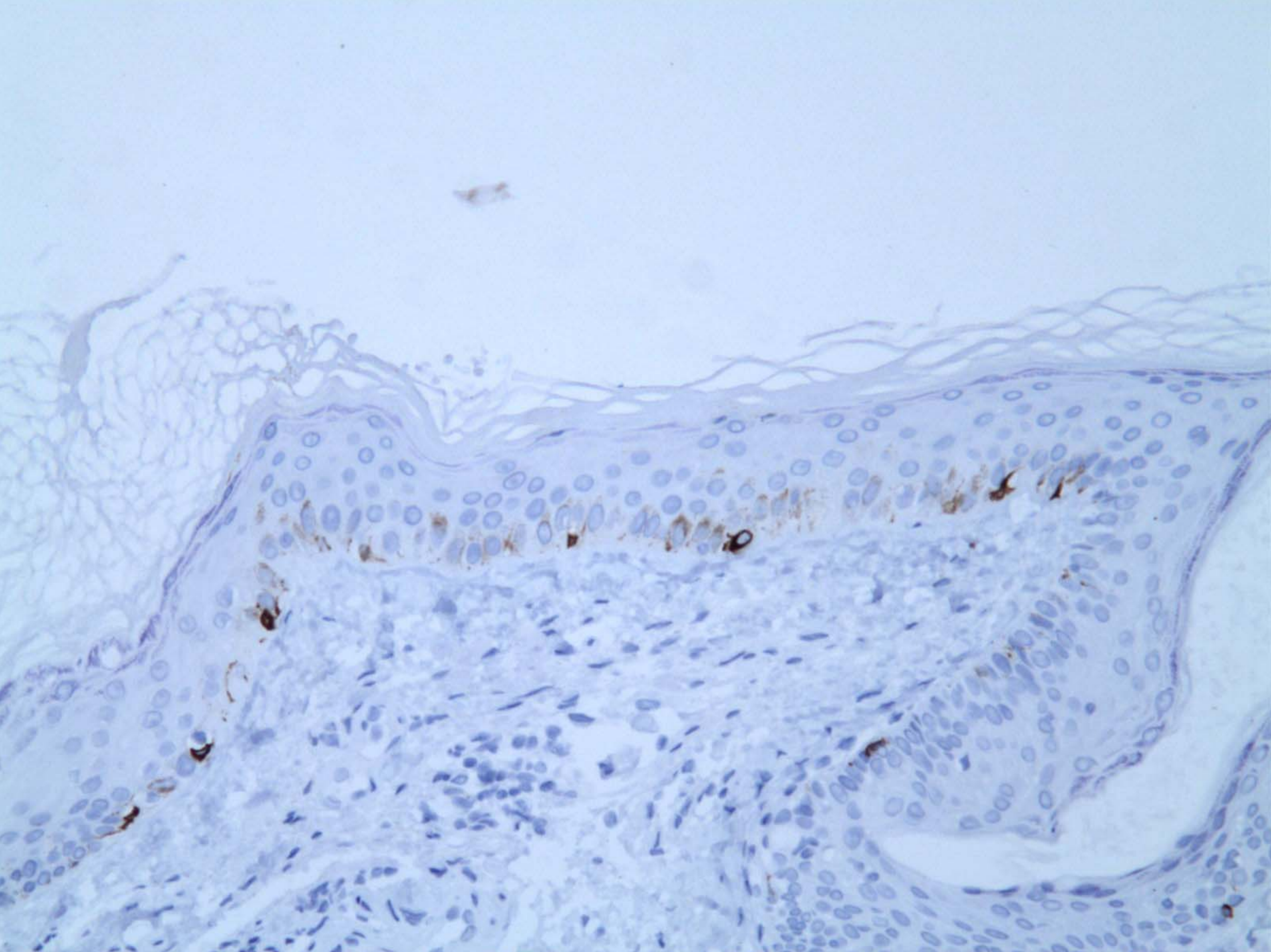


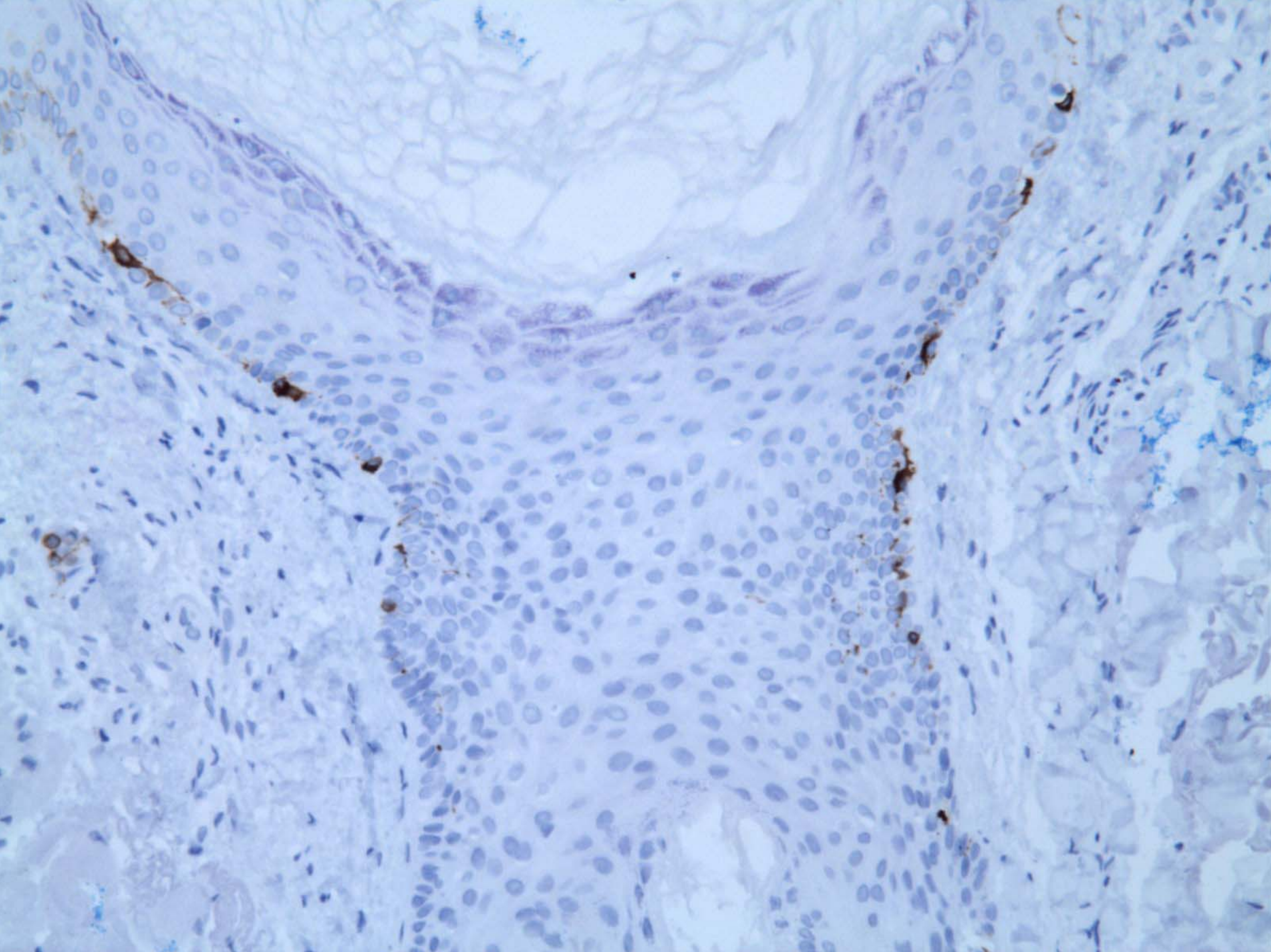
Melanoma in Situ or Atypical Melanocytic Hyperplasia arising on Sun-Damaged Skin?





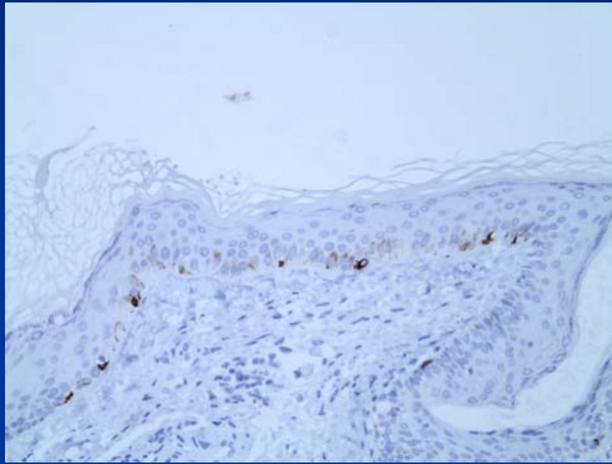


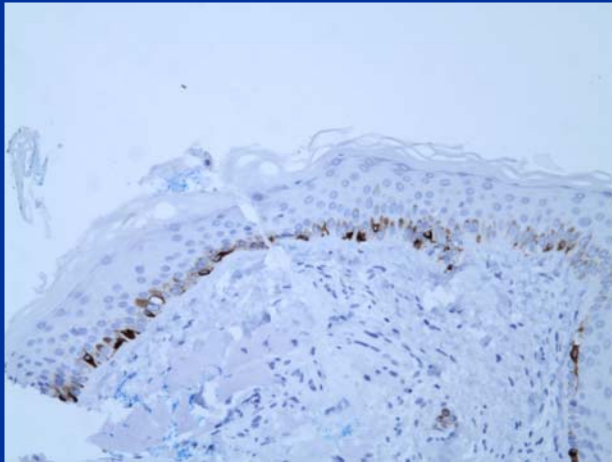




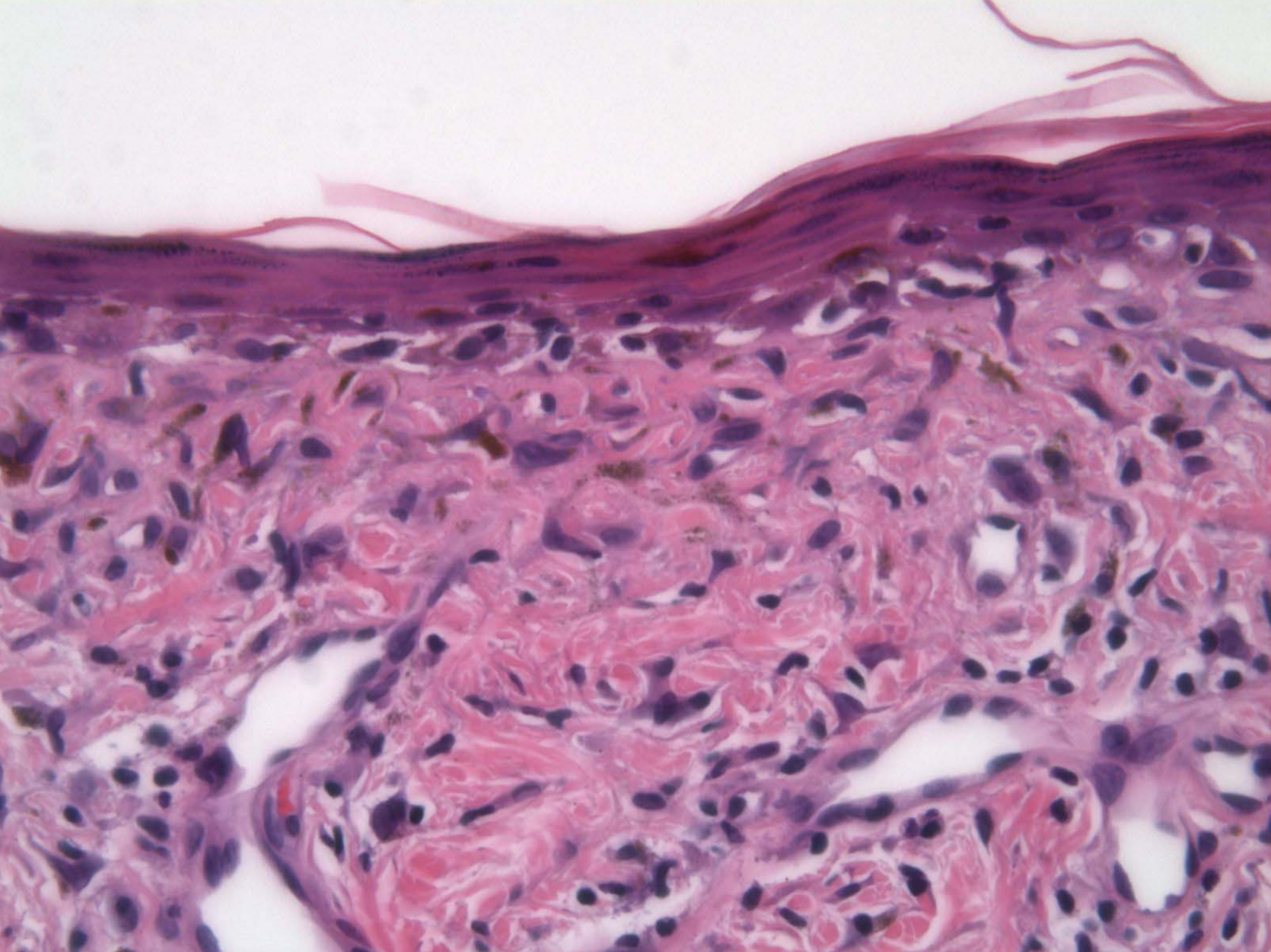
Melanocytic Hyperplasia Arising on Sun-Damaged Skin

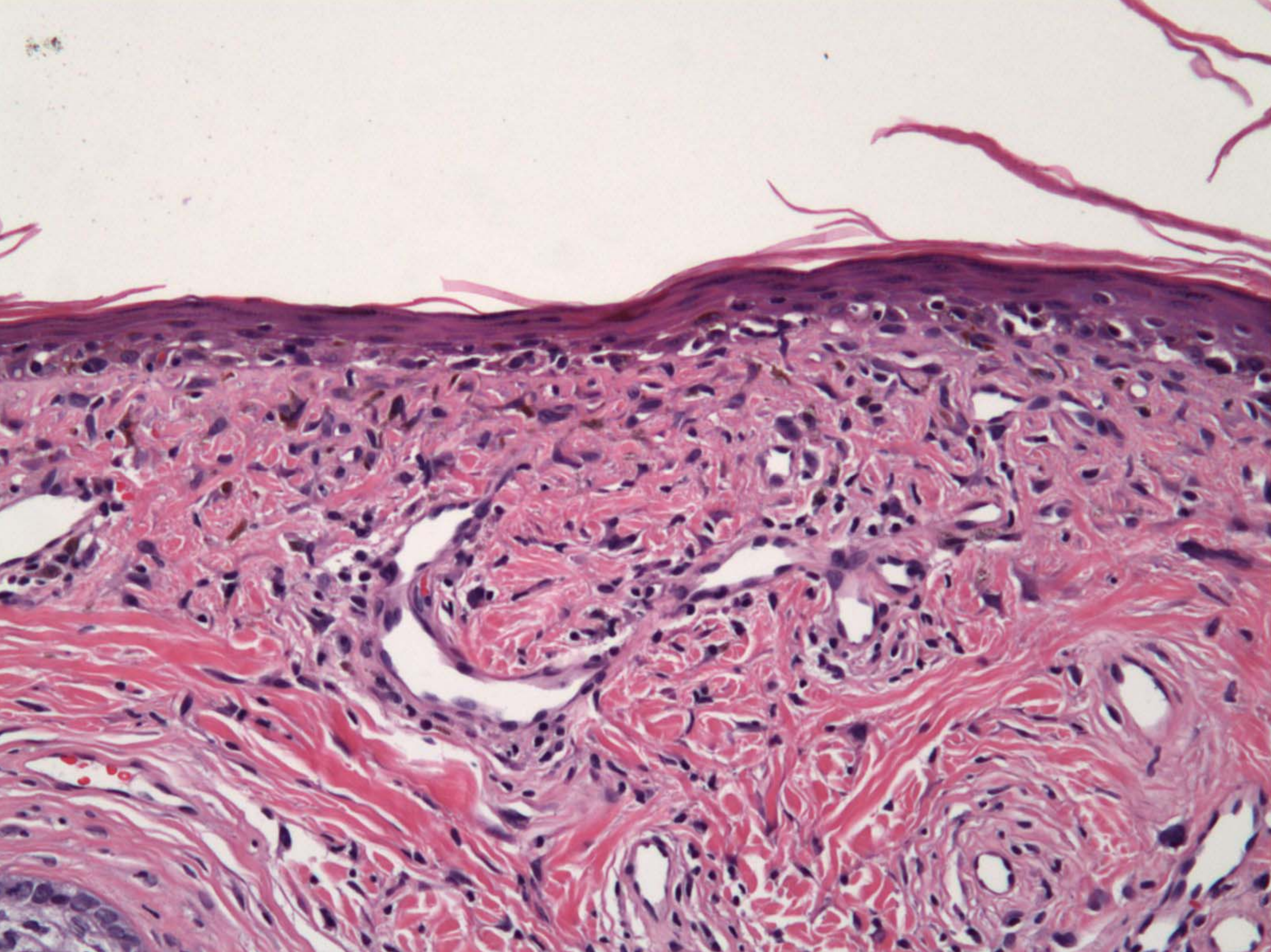
Histopathology

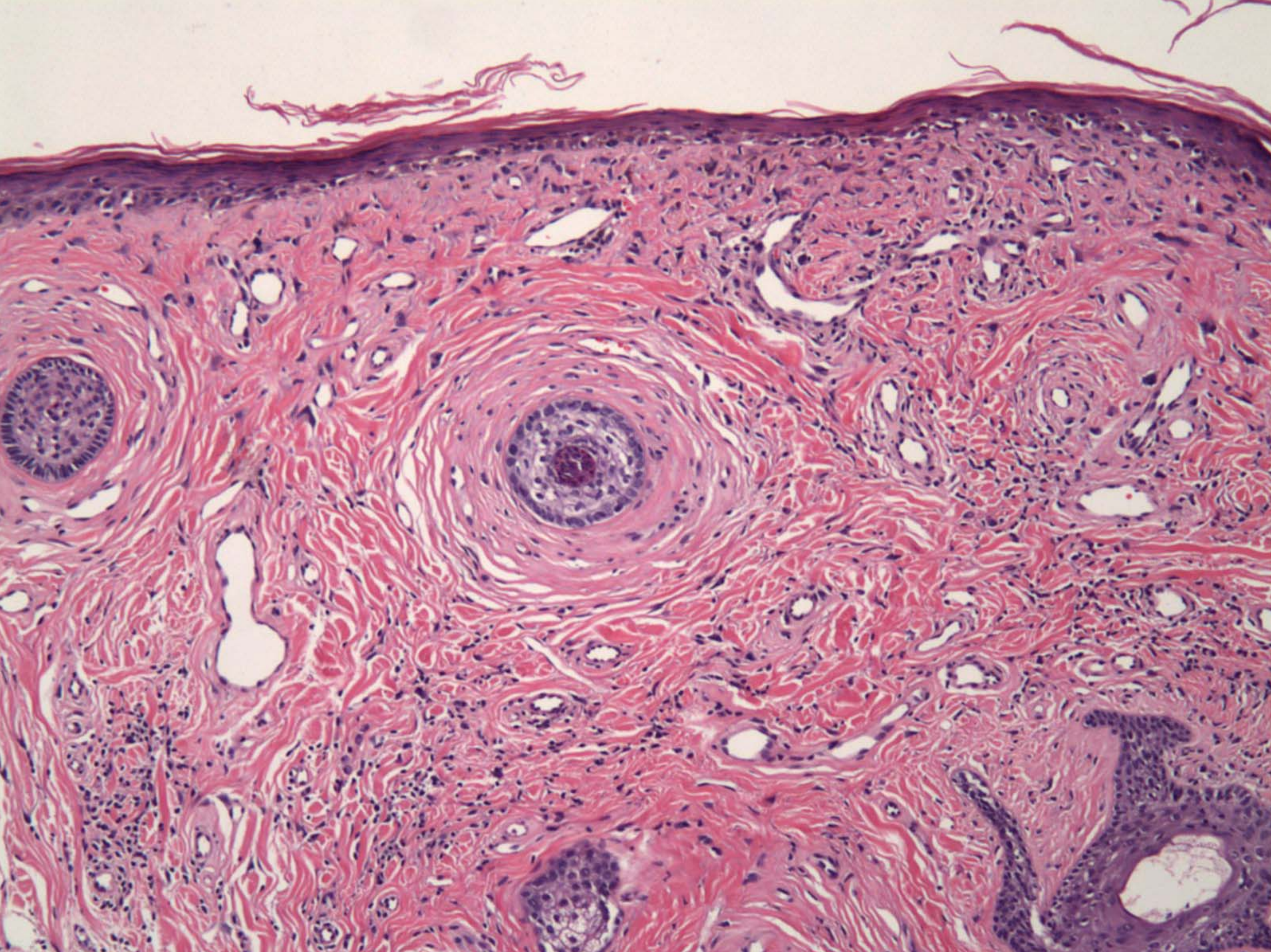


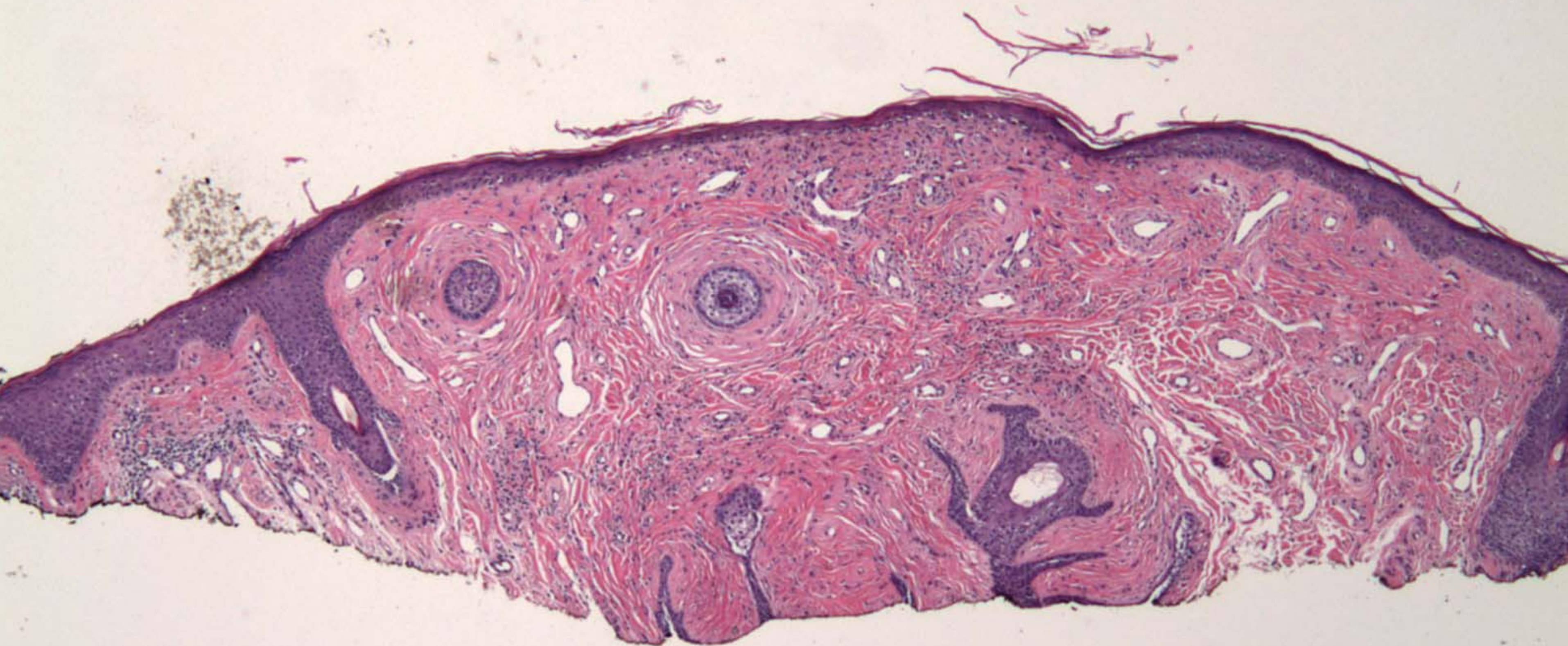


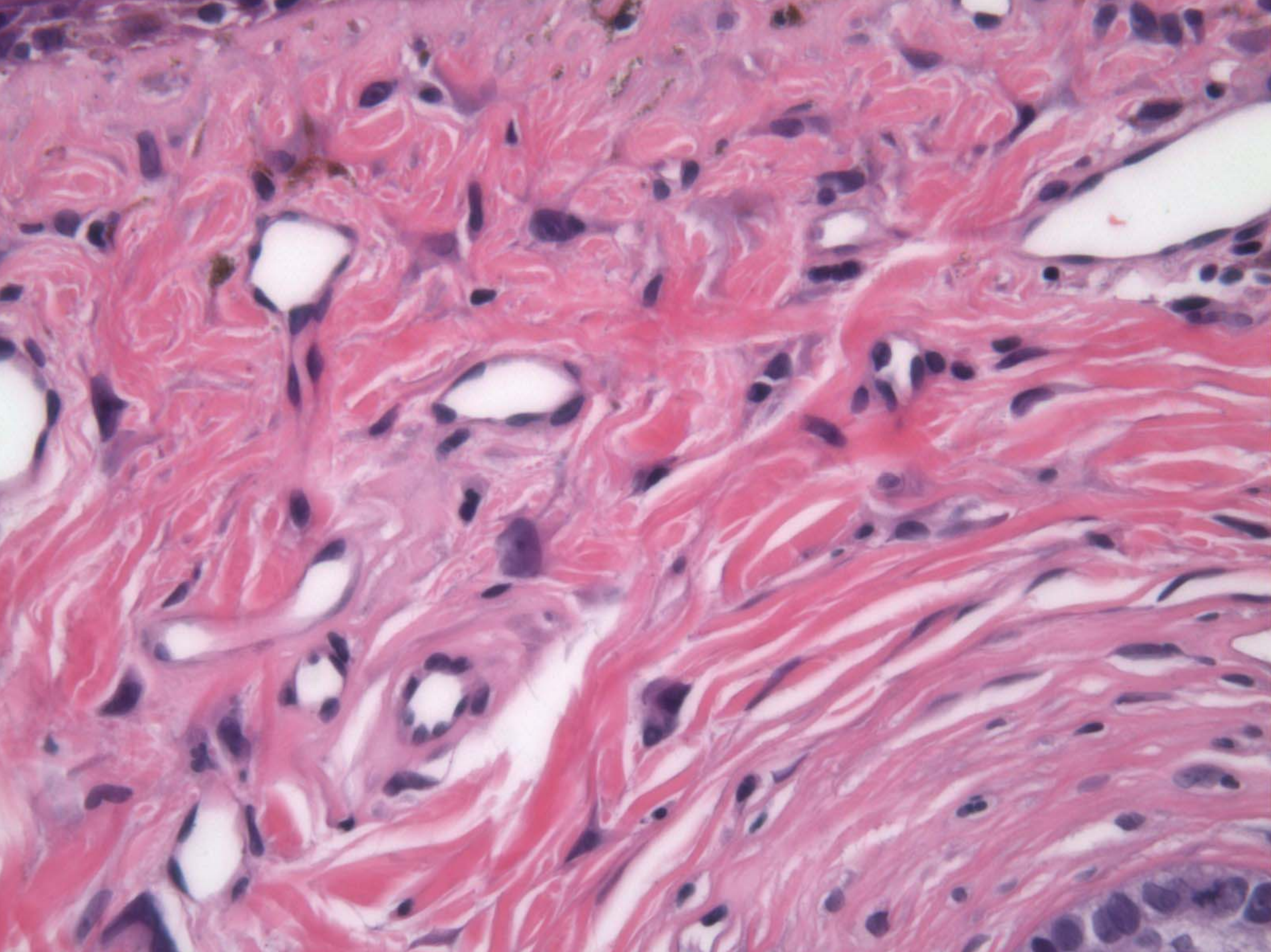
- Equal spacing of junctional melanocytes
- Lack downward adnexal growth
- Lack starburst melanocytes
- May need MART1 or HMB45 to confirm





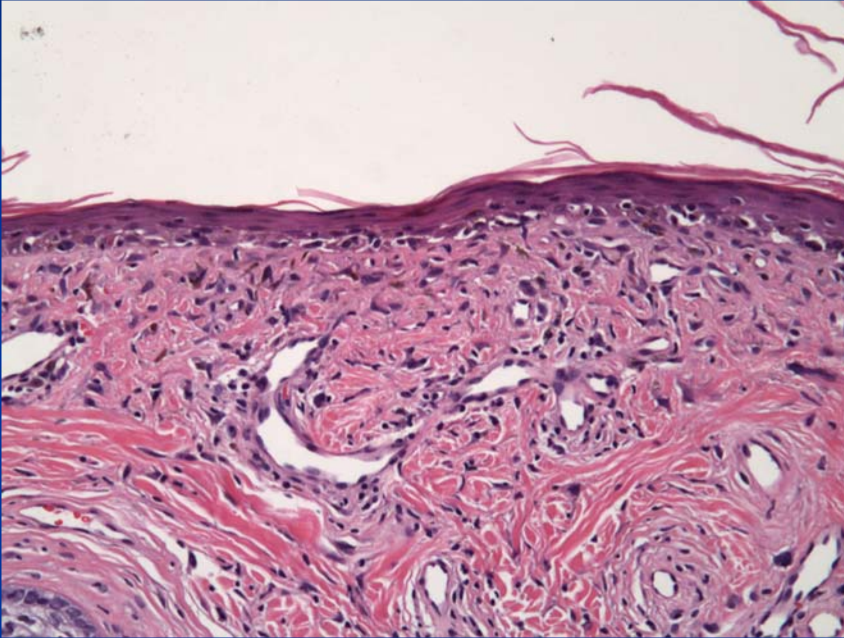




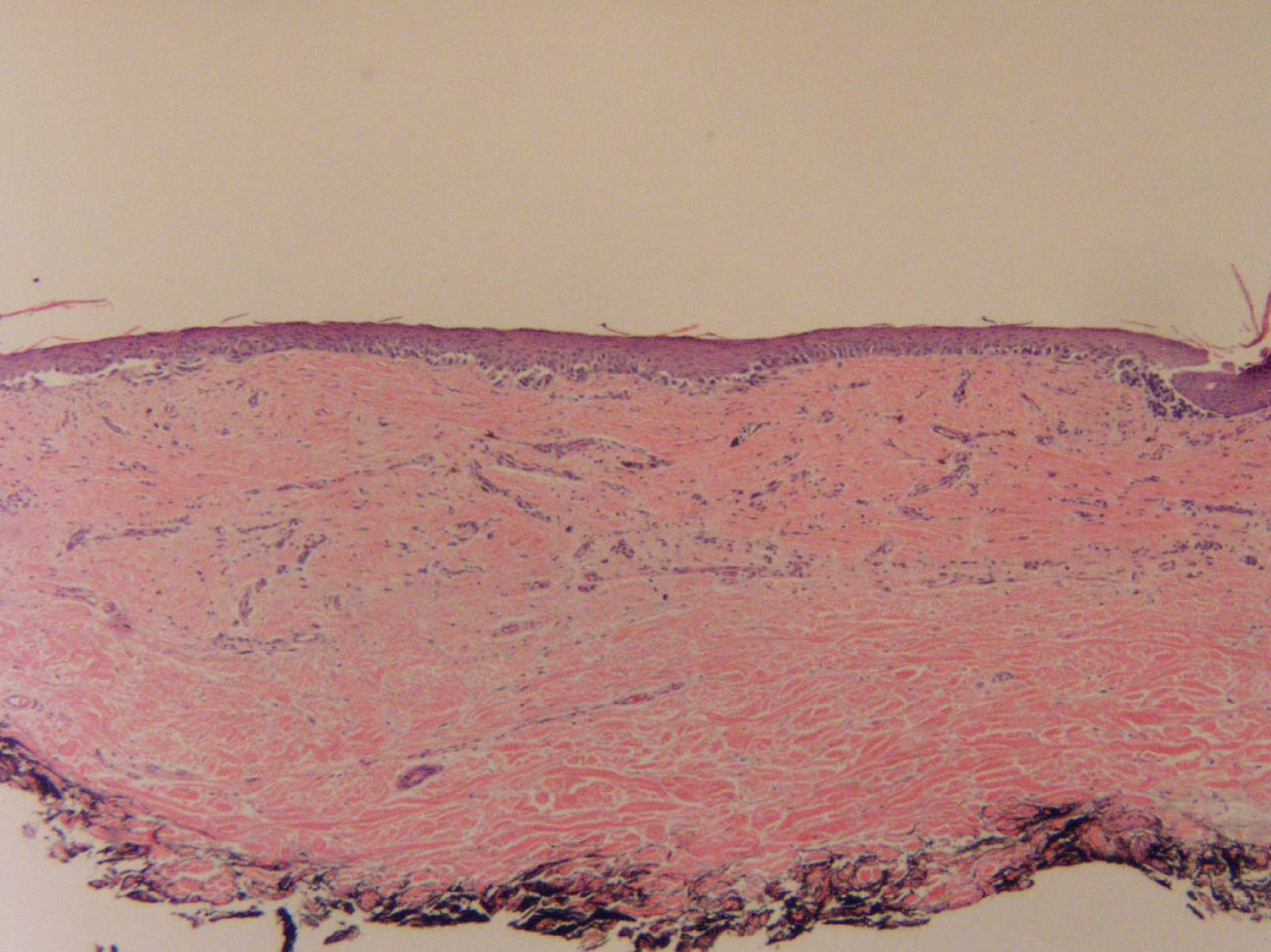


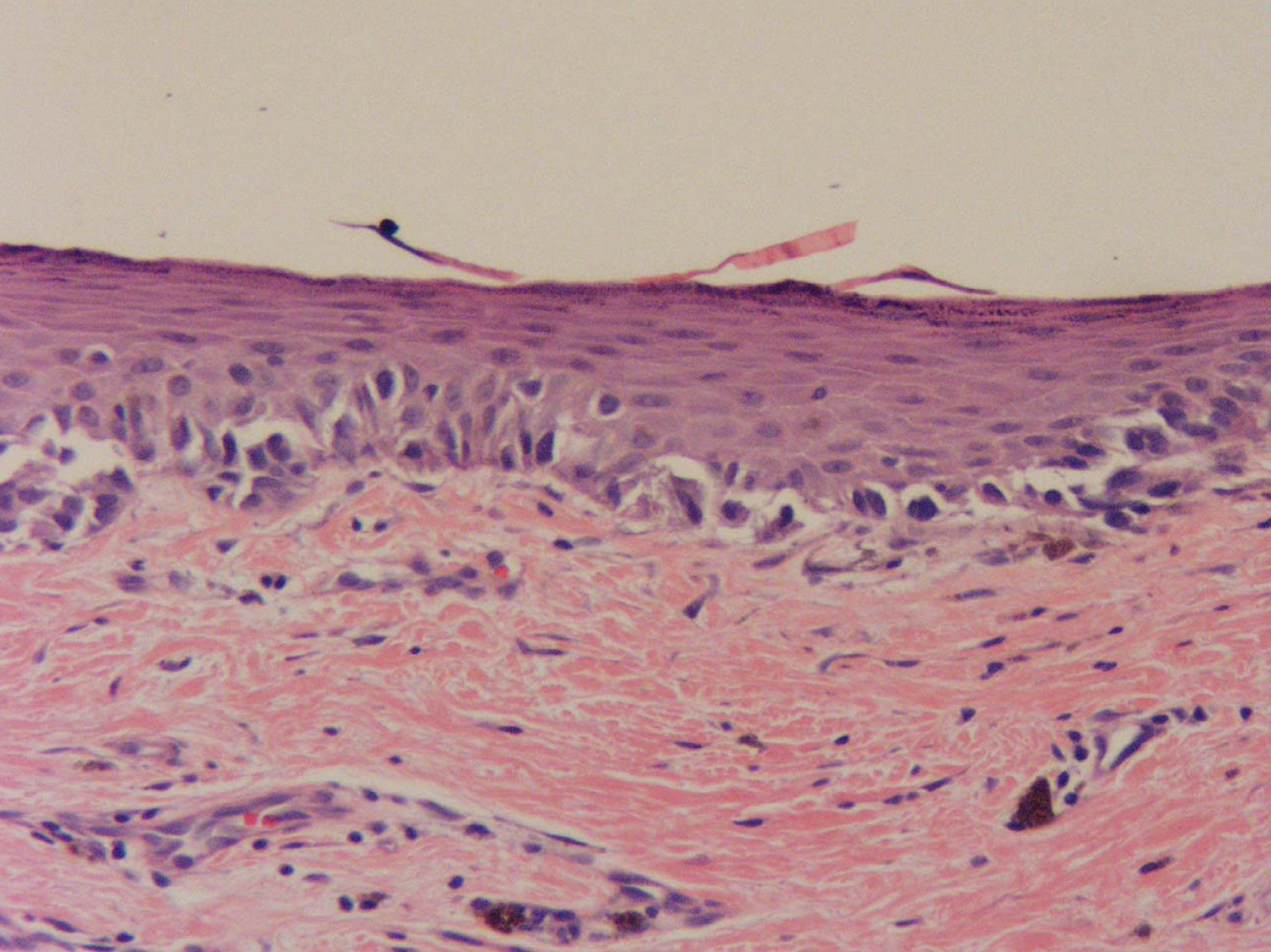
Atypical Junctional Melanocytic Hyperplasia Overlying Fibrous Papule

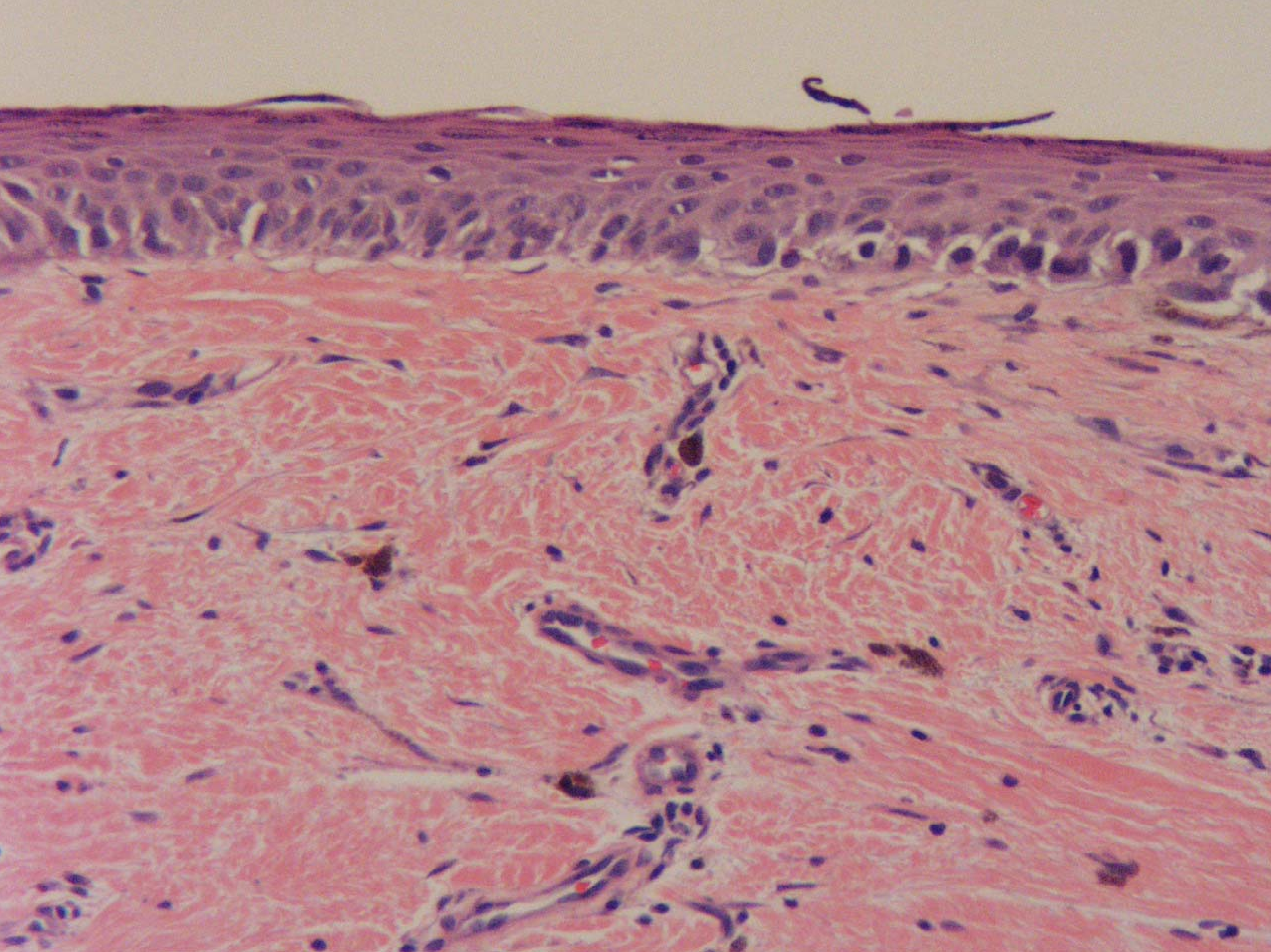
Histopathology

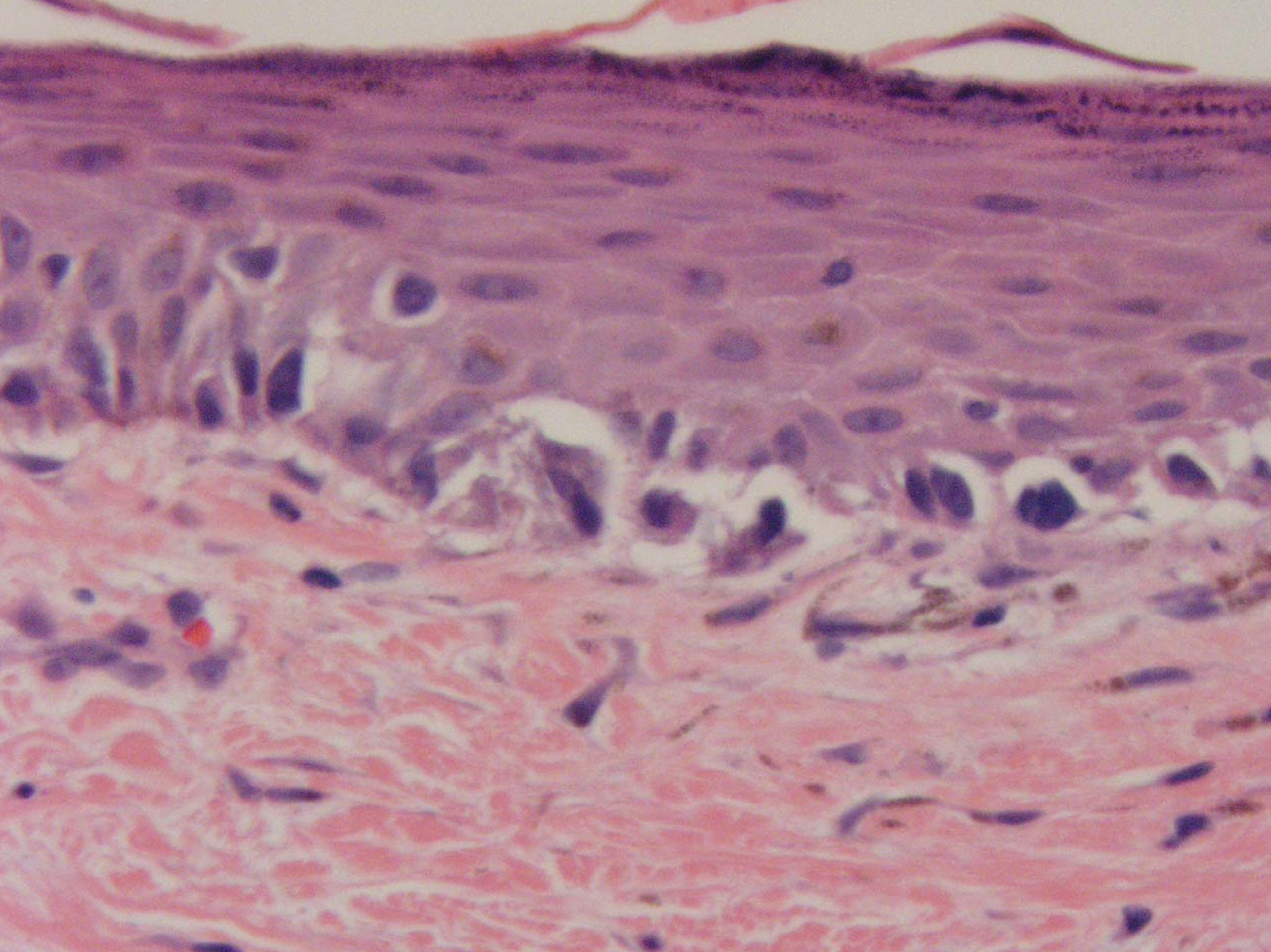


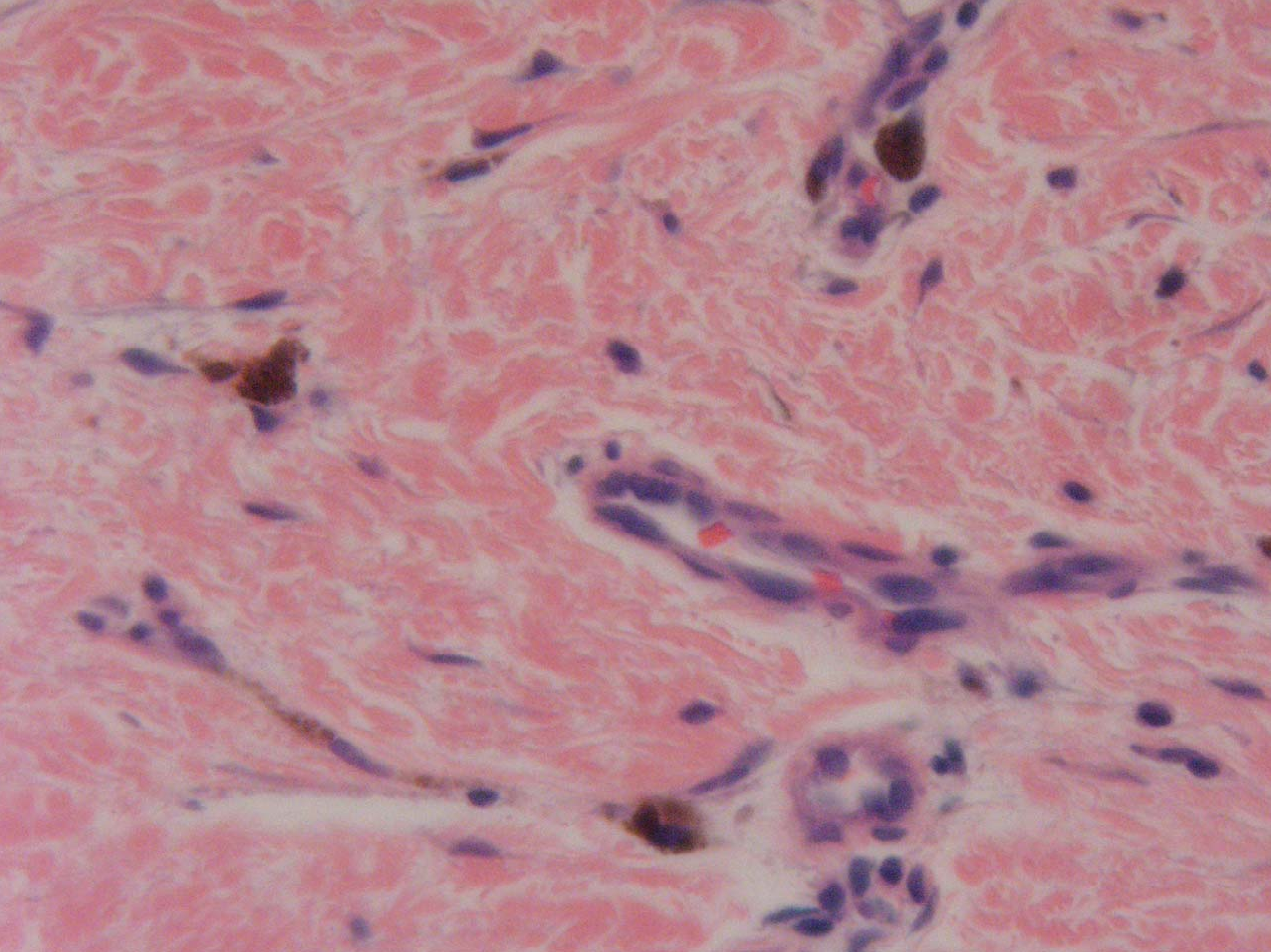
- Frequent finding
- Localized over the dermal angiofibromatous component
- May be difficult in superficial shave biopsies





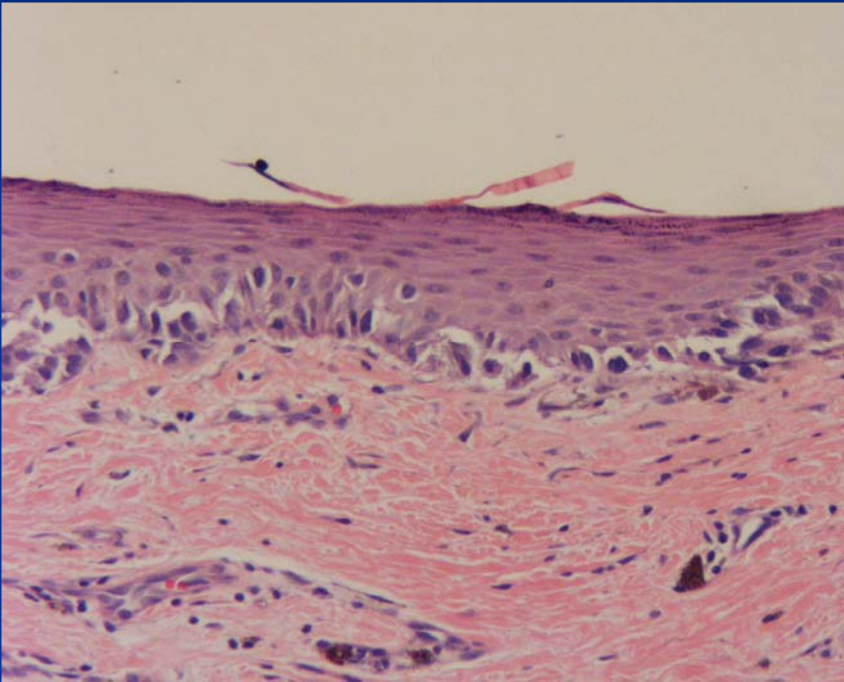




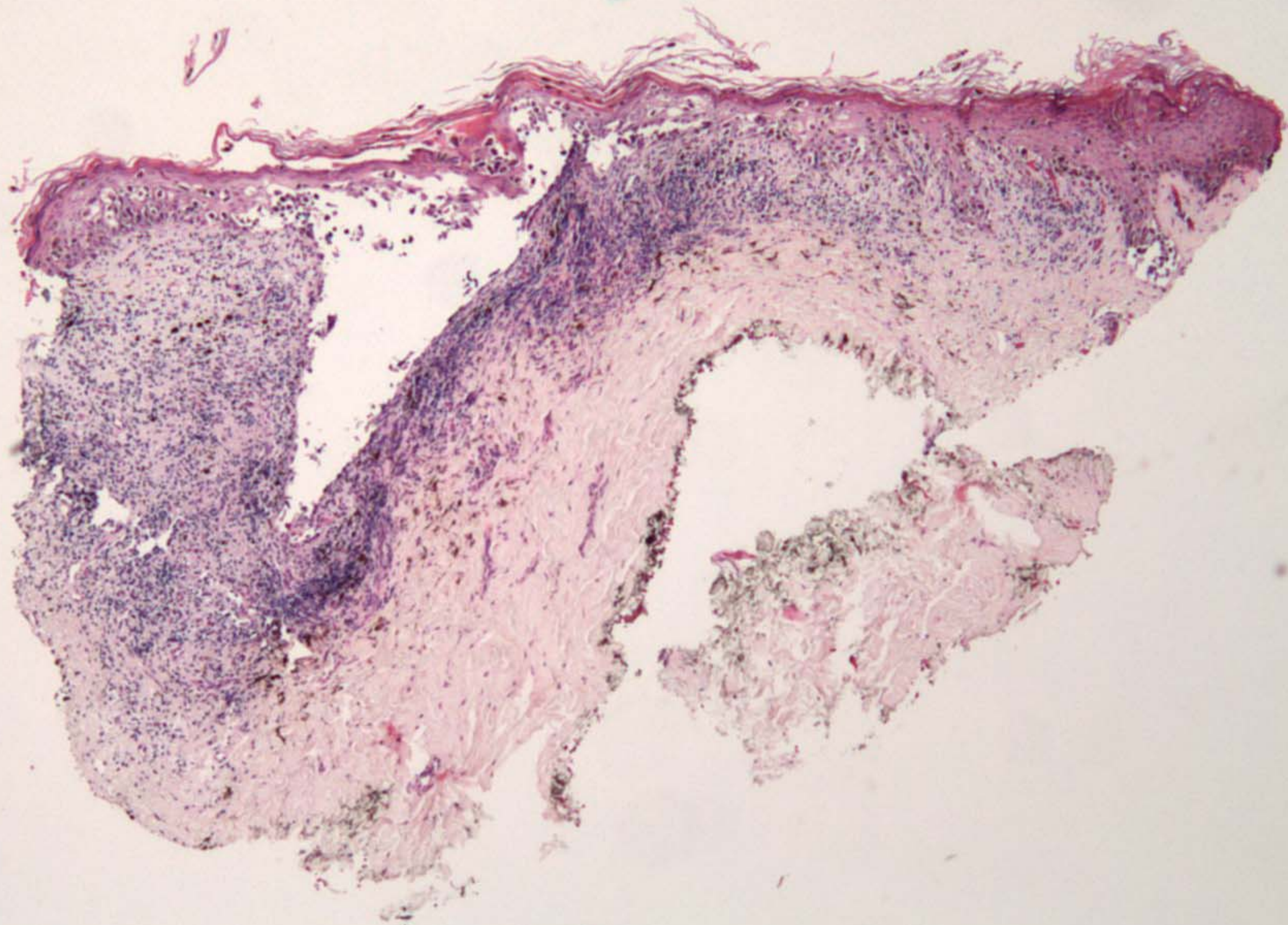


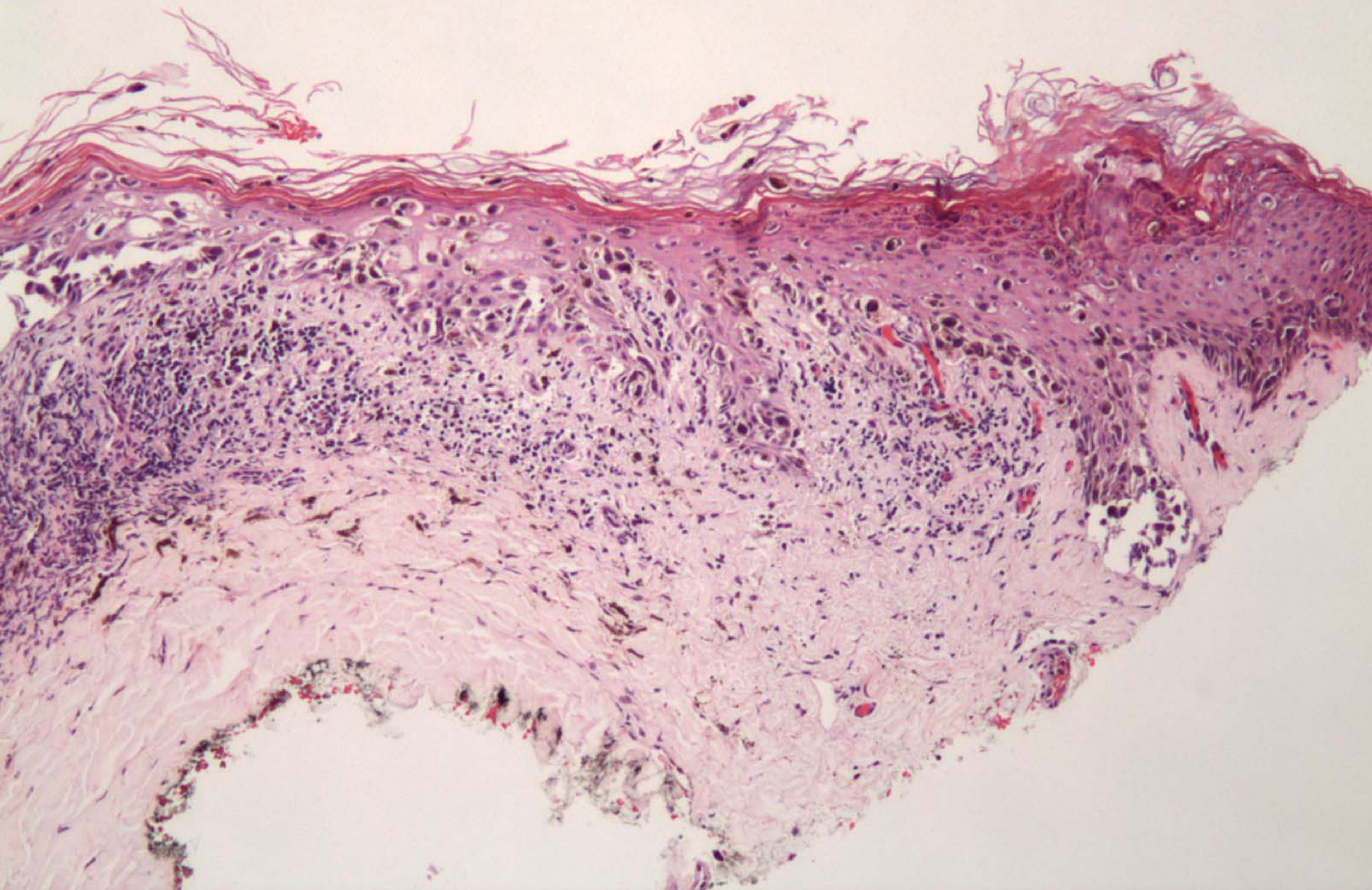
Regressed Melanocytic Neoplasm Limited to Dermal-Epidermal Junction

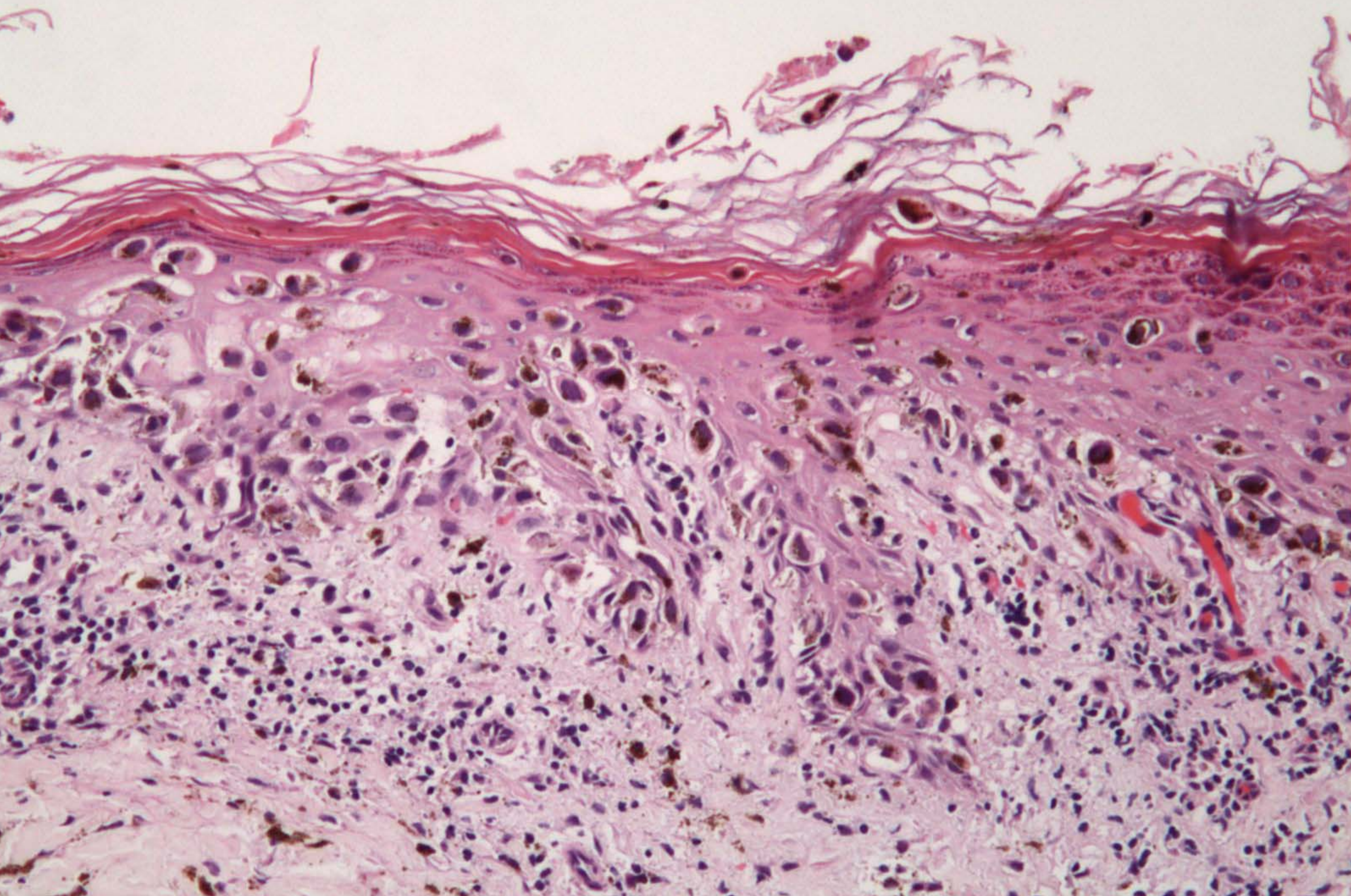
This is NOT Melanoma in Situ!

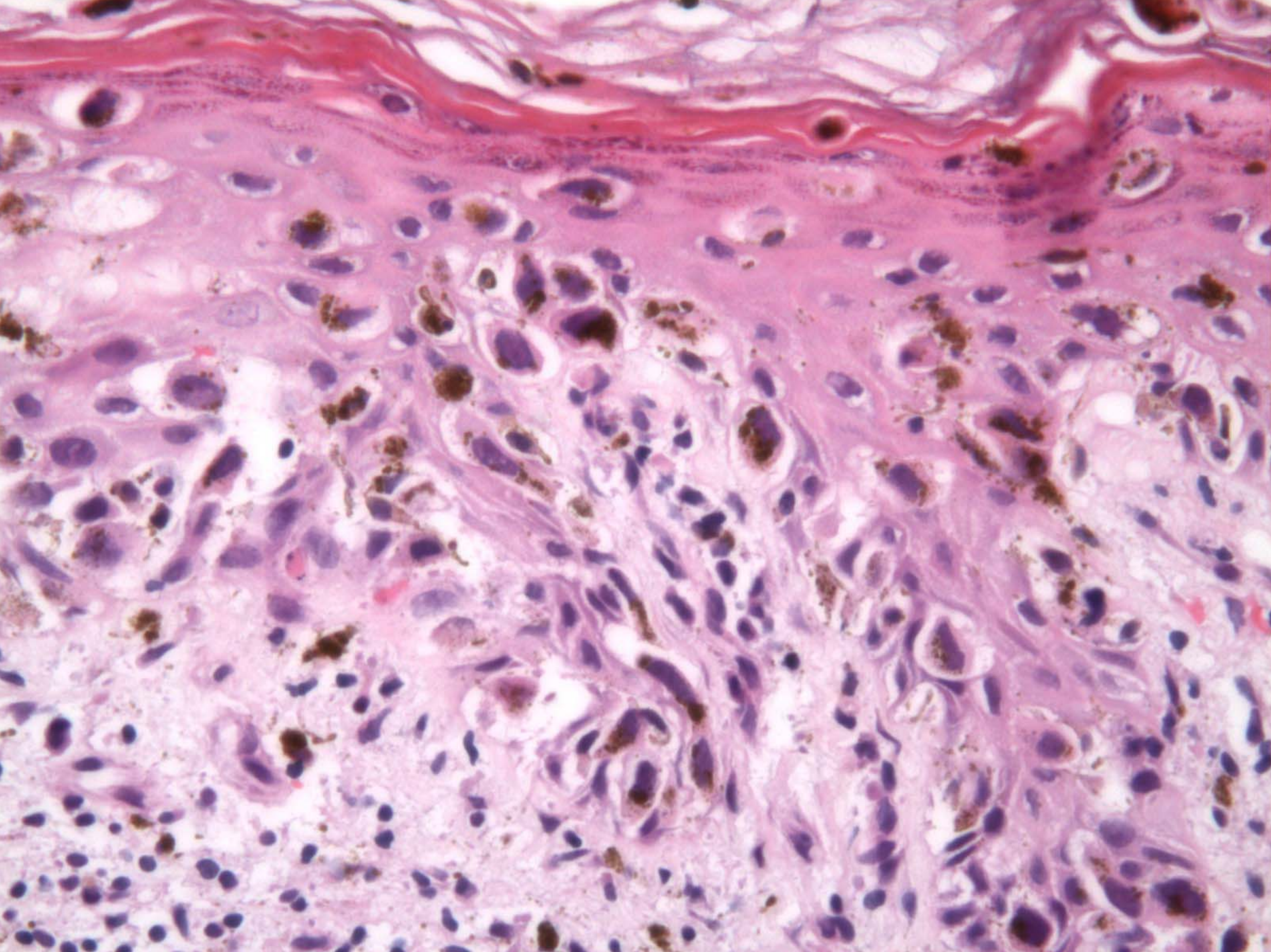


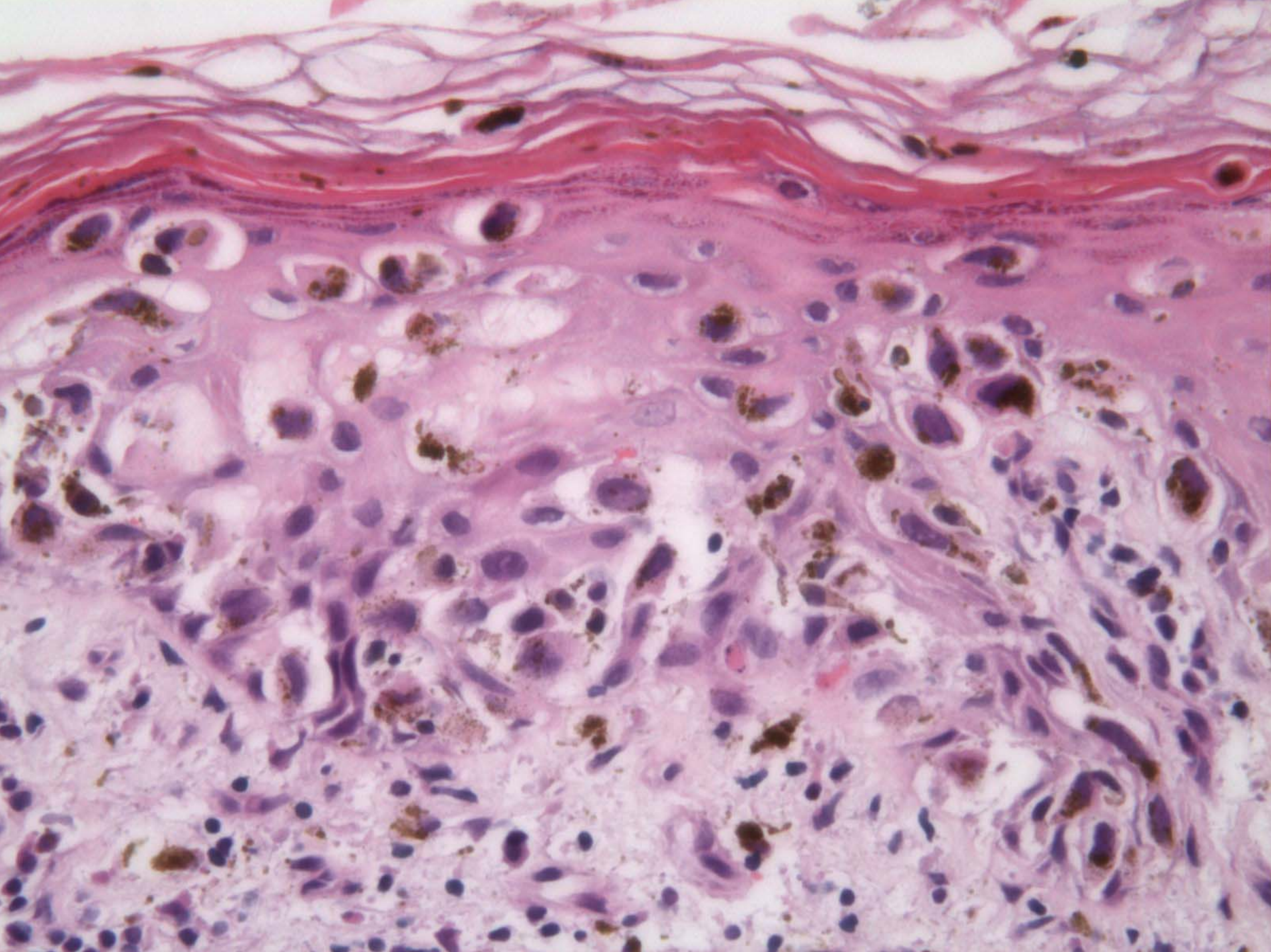
- With regression, caution in diagnosing MMIS
- Prior invasion cannot be excluded
- Melanoma with regression limited to the dermal-epidermal junction

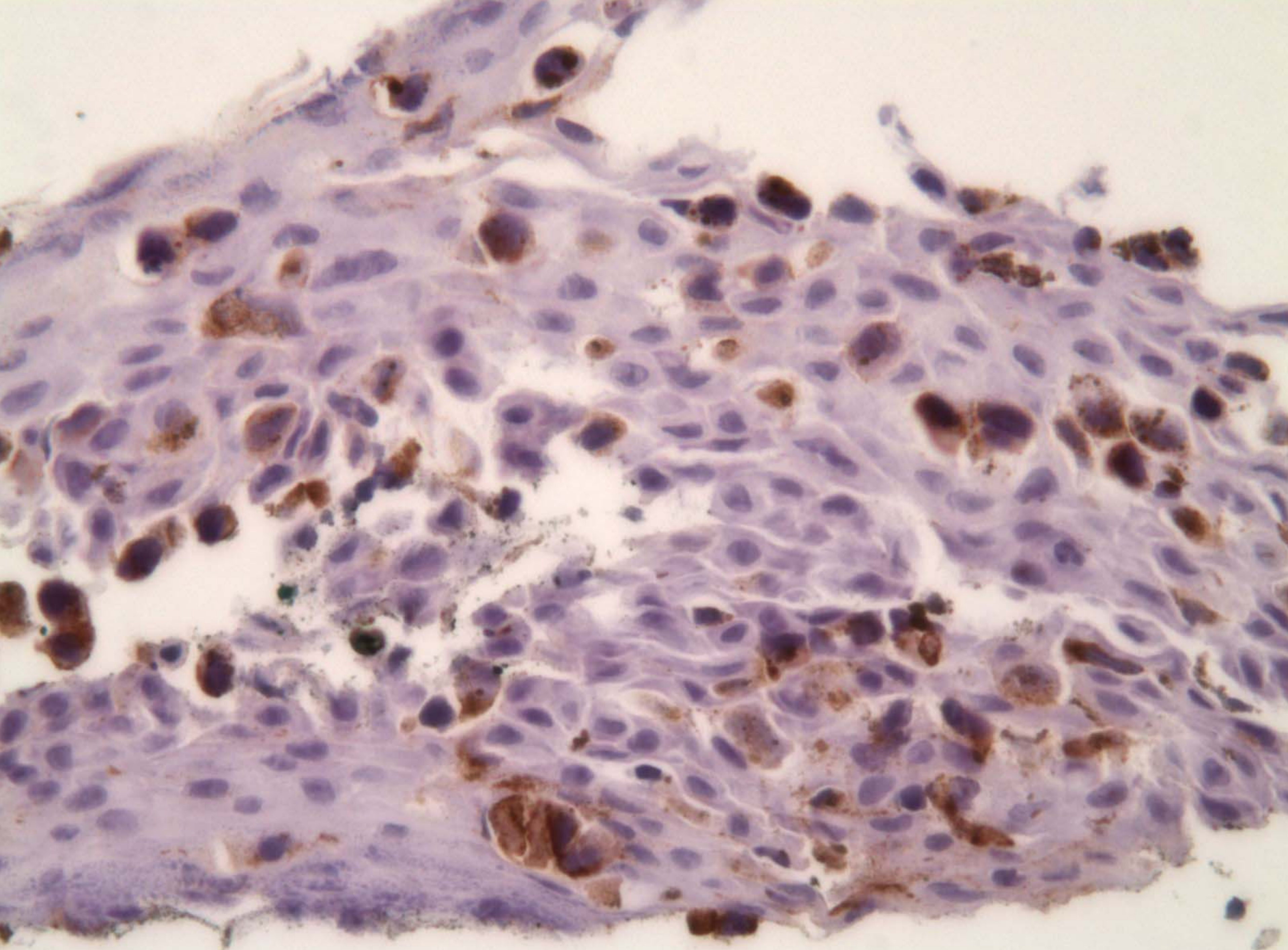


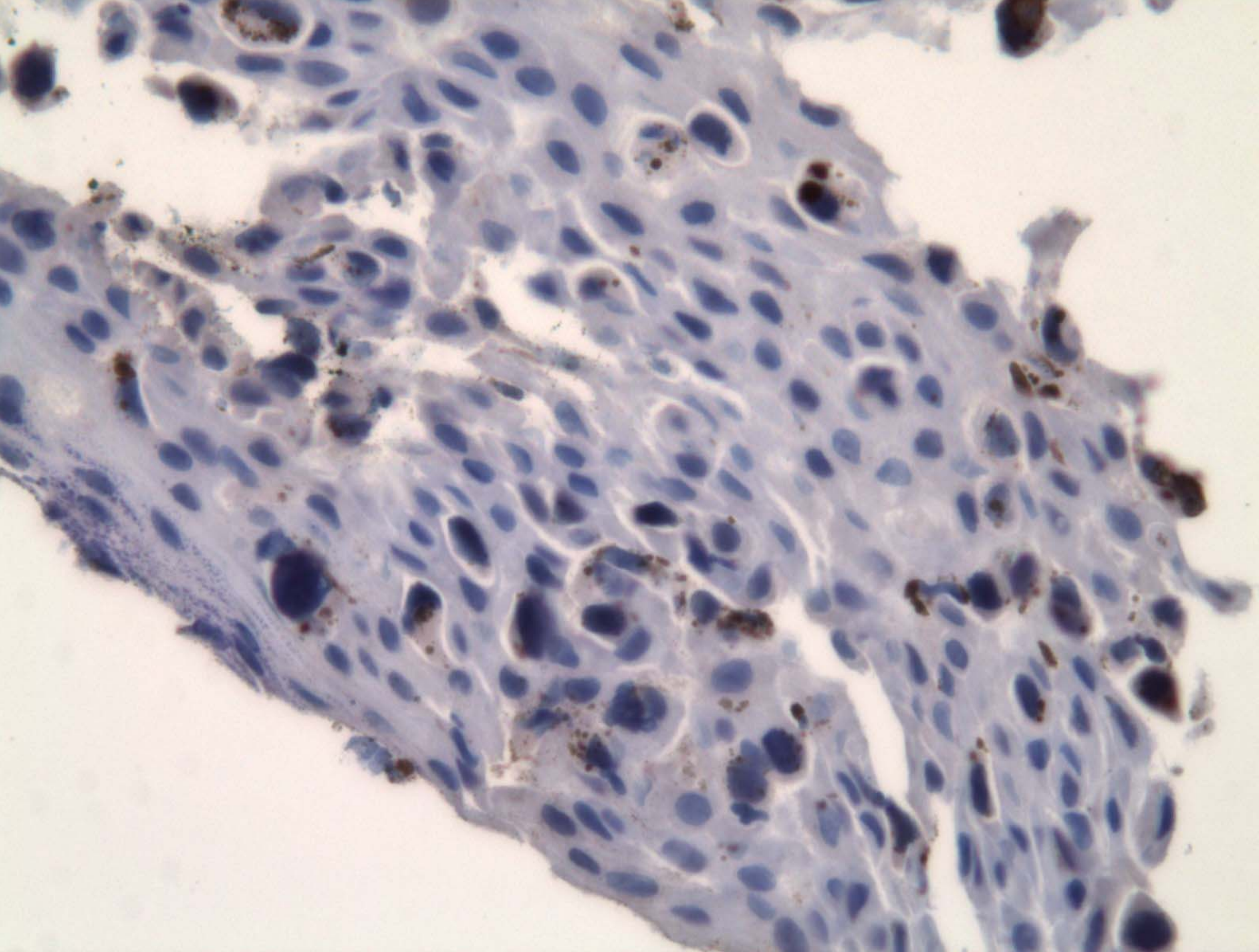






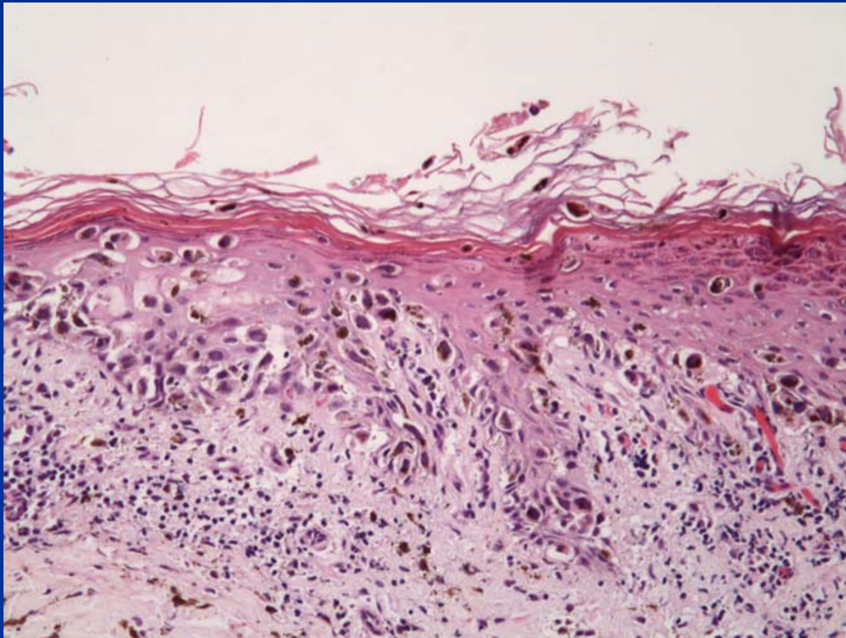






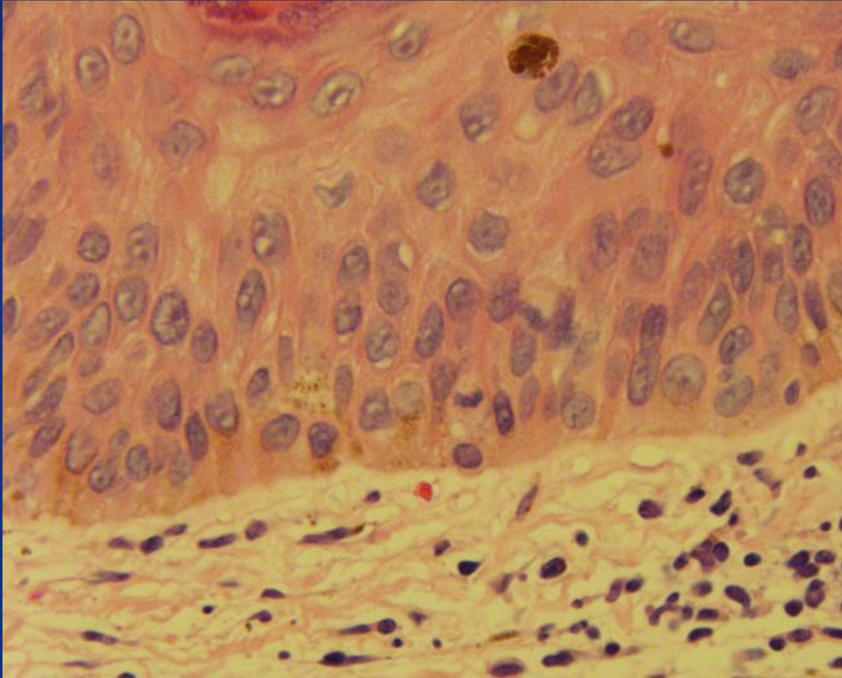
Pigmeted Paget's Disease of the Nipple

Histopathology



- Nipple location
- Epithelial nests with increased melanin pigment
- Pigment incontinence
- Confirm by EMA, S100, Mart1
- Mammogram and PE

Additional DDX



- Dysplastic nevus
- Seborrheic keratosis with basilar clear cells
- Bowen's disease
- Pigmented AK
- Lichenoid keratosis

Treament

- Conventional Surgery
- MOHS
- Radiation therapy
- Imiquimod
- Laser