

A surgeon stops by your office and chides you by saying, "Pathology is easy. All you have to remember is if it doesn't look like anything you would recognize, it must be cancer."

# Your Reply is.....

- You are correct
- You are wrong
- It depends upon the tissue site
- Where did you go to medical school?

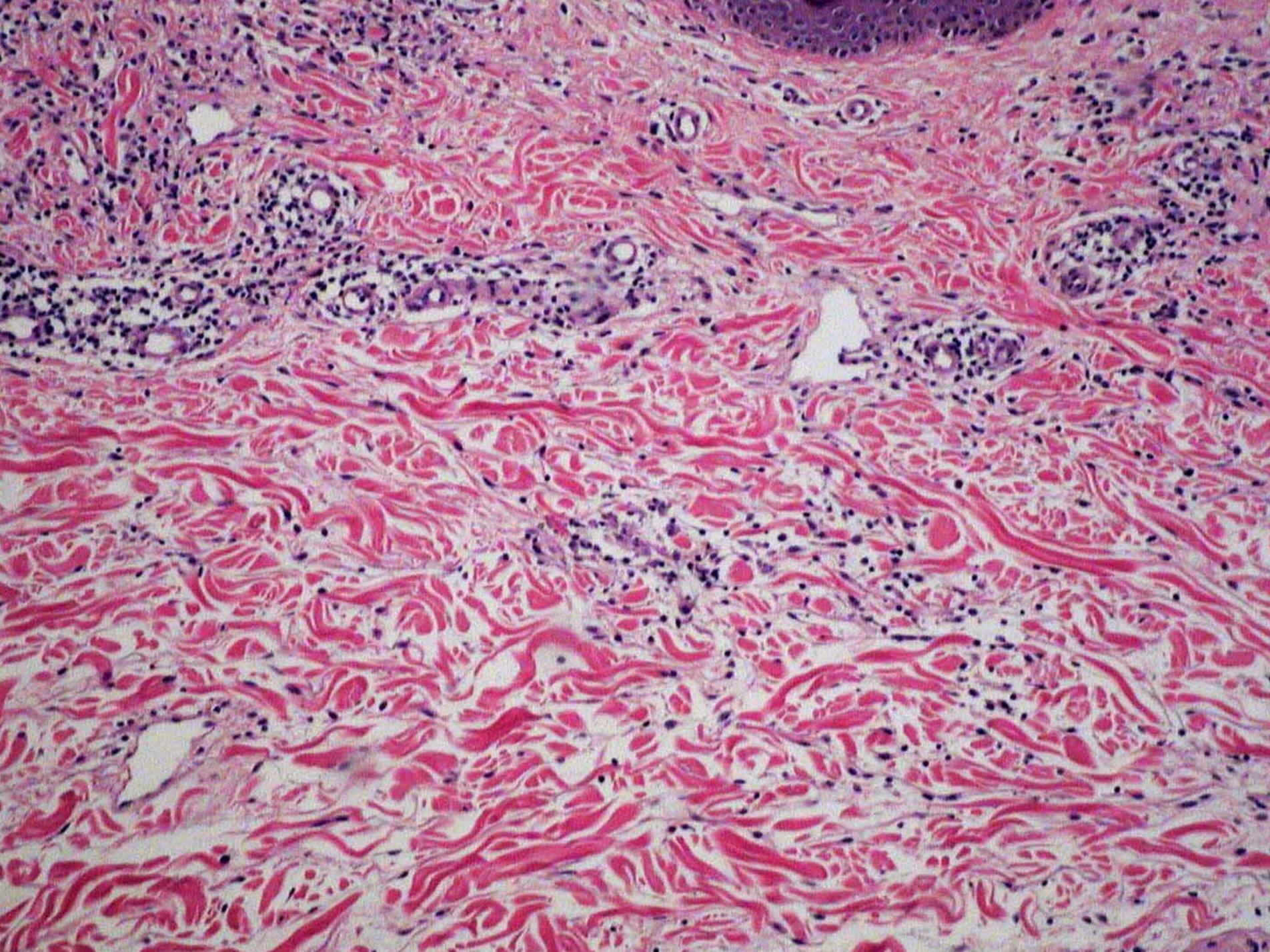
# Inflammatory or Neoplastic?

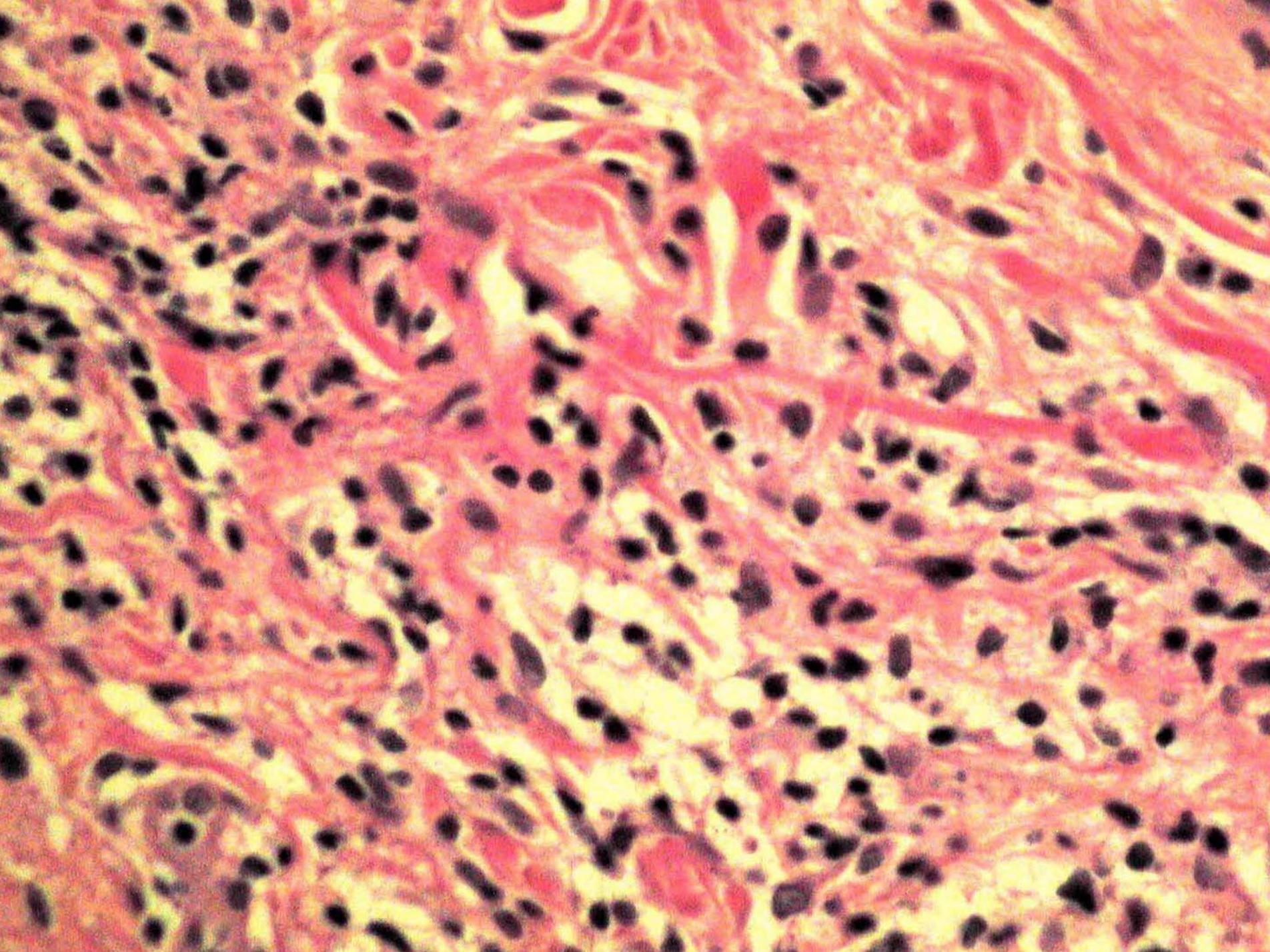
Paul K. Shitabata, M.D.

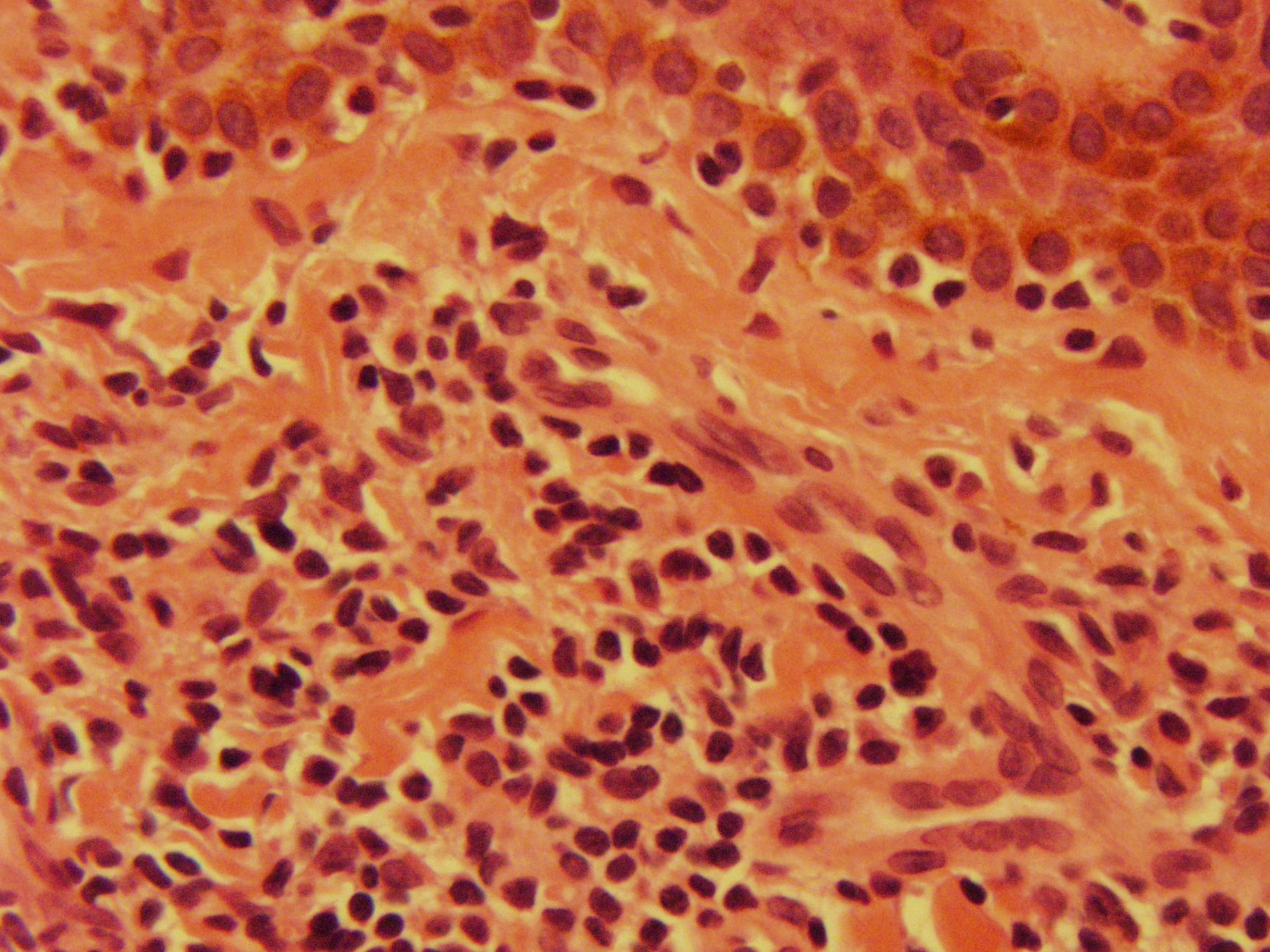
Dermatopathologist

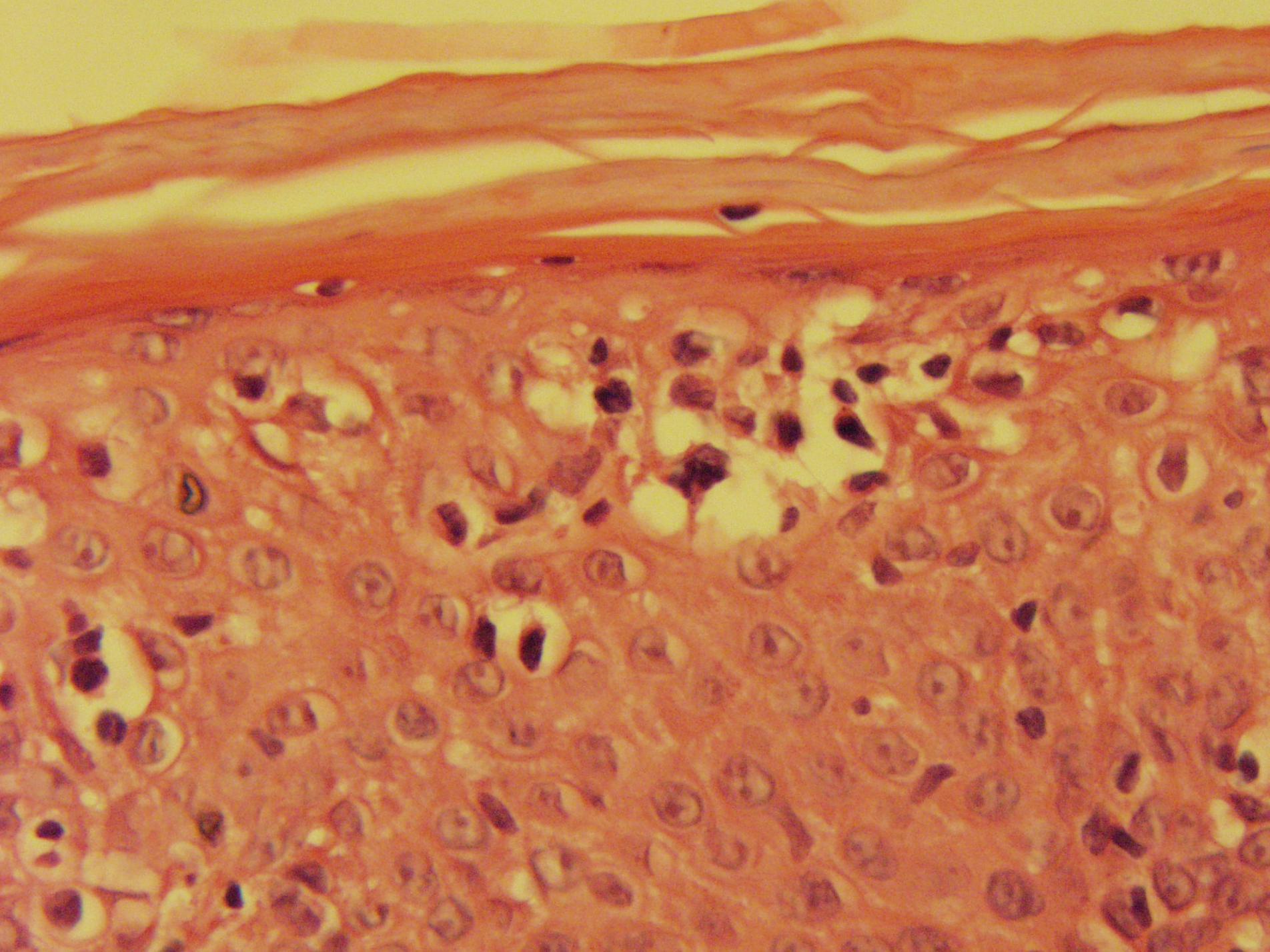
APMG











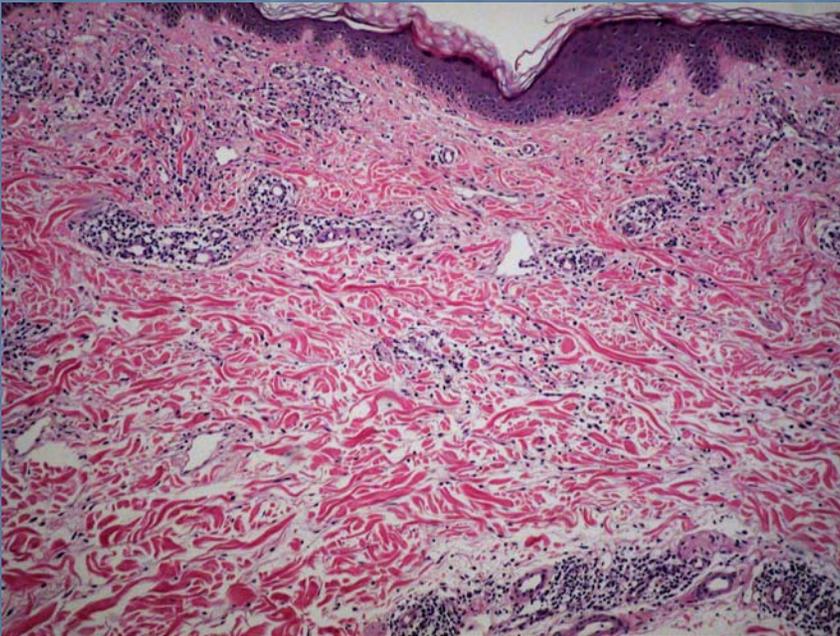
# Mycosis Fungoides-Interstitial Variant

# Interstitial Variant



- Non-indurated, erythematous macules; ill-defined erythematous plaques with slight scale; and nodules on the trunk and proximal limbs

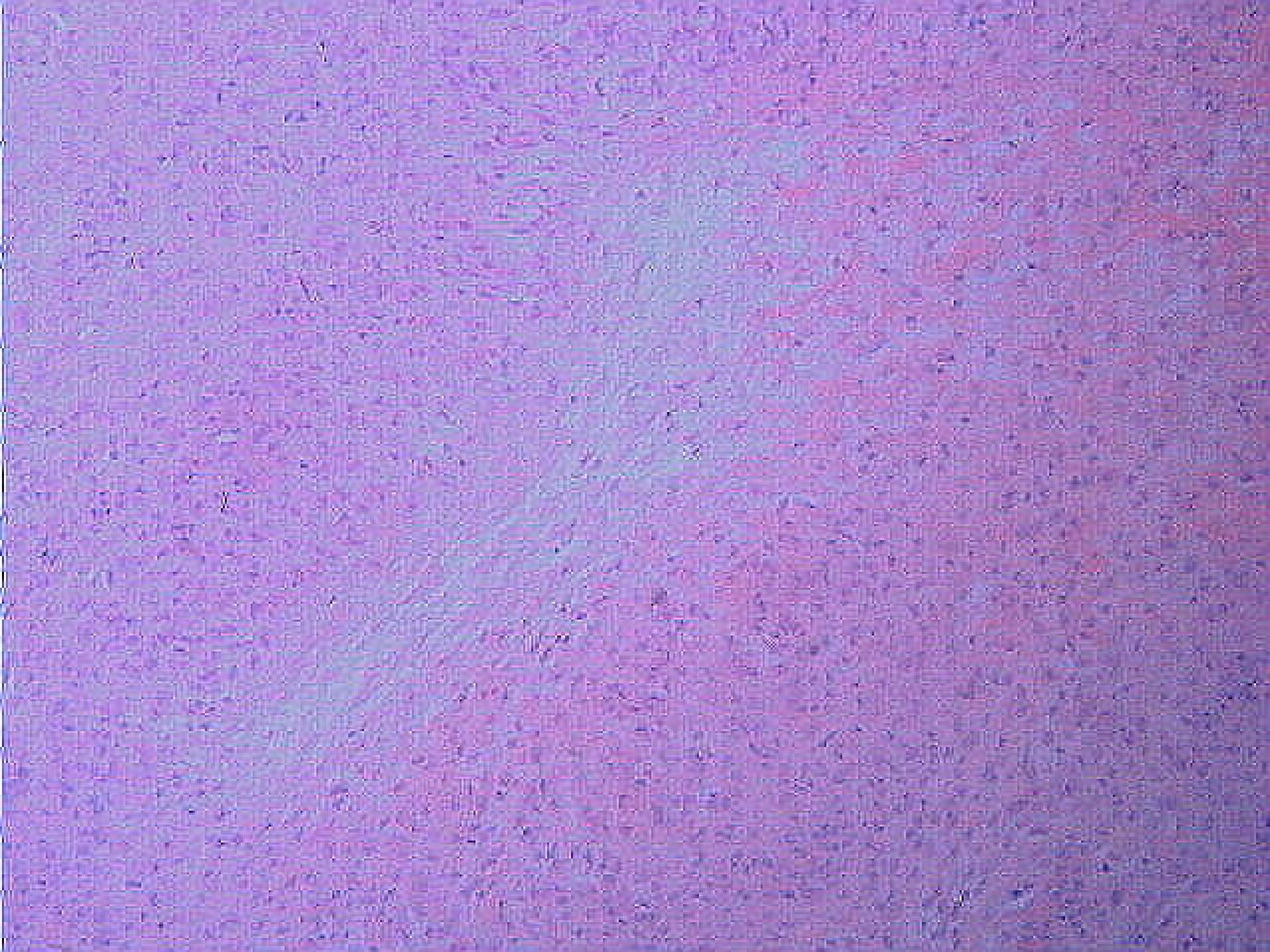
# Histopathology

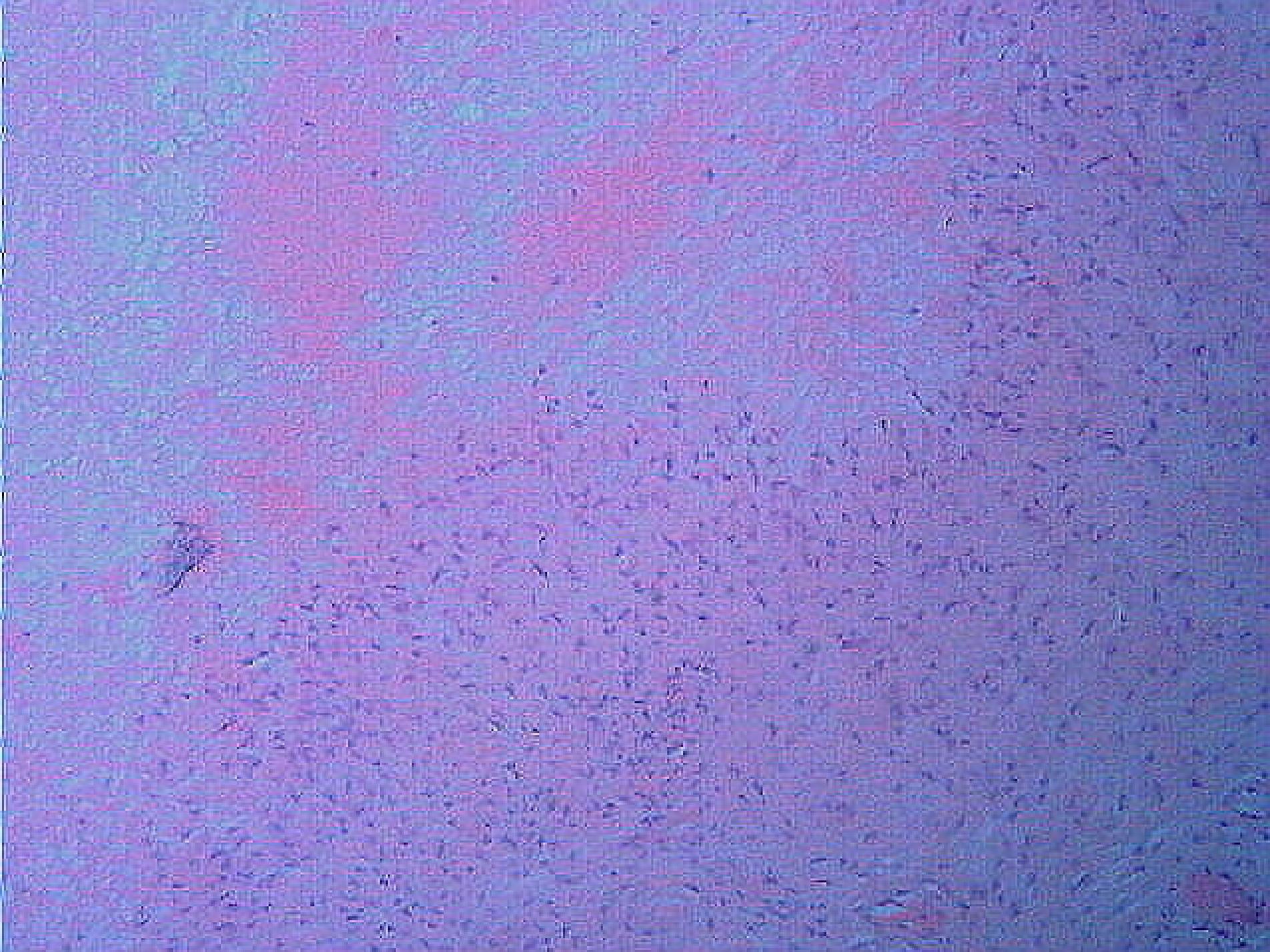


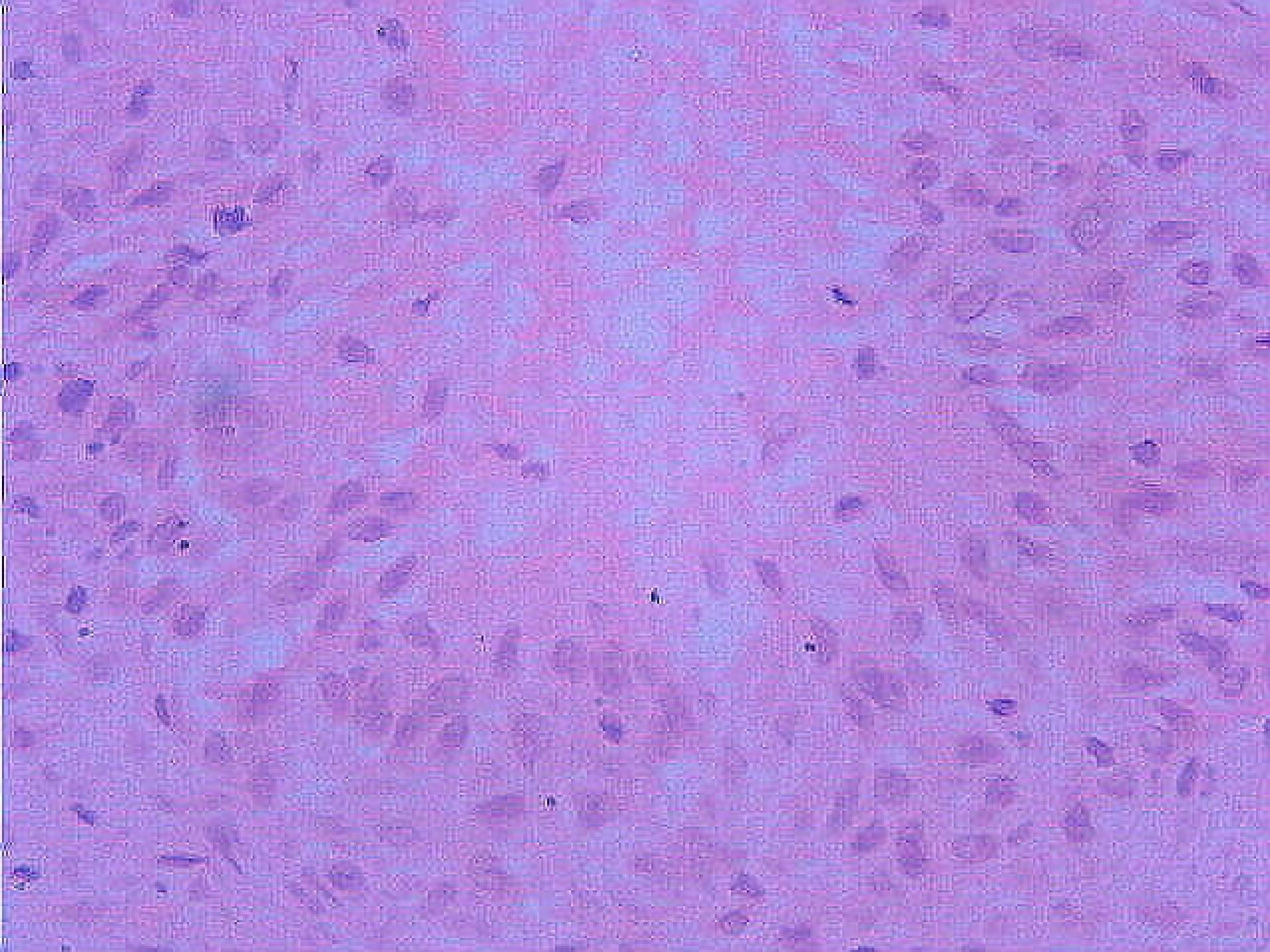
- Striking dermal interstitial infiltrate of lymphocytes with rare histiocytes that resembled the interstitial form of granuloma annulare or inflammatory morphea
  - Epidermotropic lymphocytes were present at least focally in all cases
  - A band-like lymphocytic infiltrate was observed in two of five cases. In contrast, many plasma cells and
  - Increased dermal mucin deposition was observed in 2/5
- Dominant population of T cells (CD3+) in the dermis and epidermis.
  - Clonal T-cell population was detected by PCR T-cell gamma gene rearrangement analysis (2/5)

# Mycosis Fungoides DDX

- Granuloma annulare
- Lymphomatoid drug eruption
- Inflammatory morphea



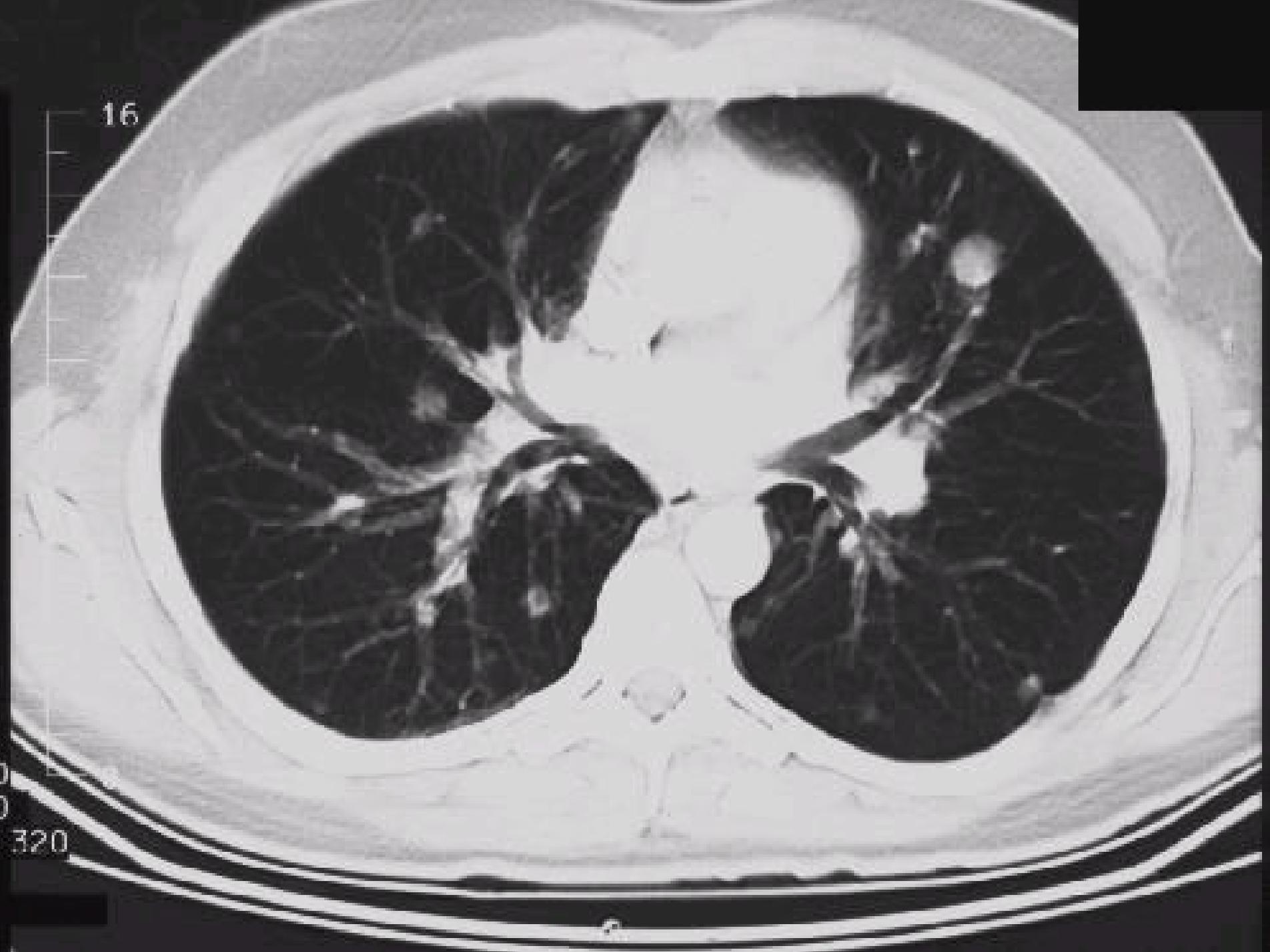




# Epithelioid Sarcoma

# Clinical

- 20's and 30's
- Dermis or subcutis
- Almost every site but very rare on the face or trunk
- Most of the cases occur on the extremities, particularly the upper extremity

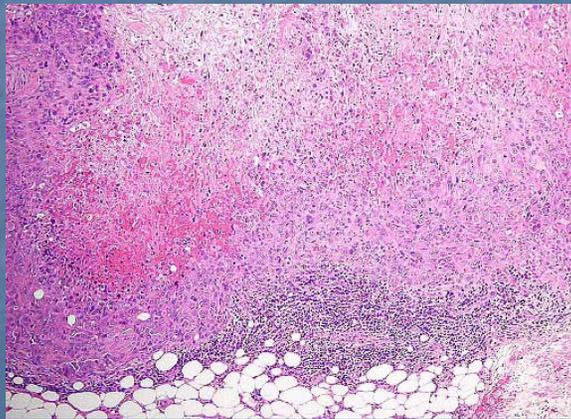


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320

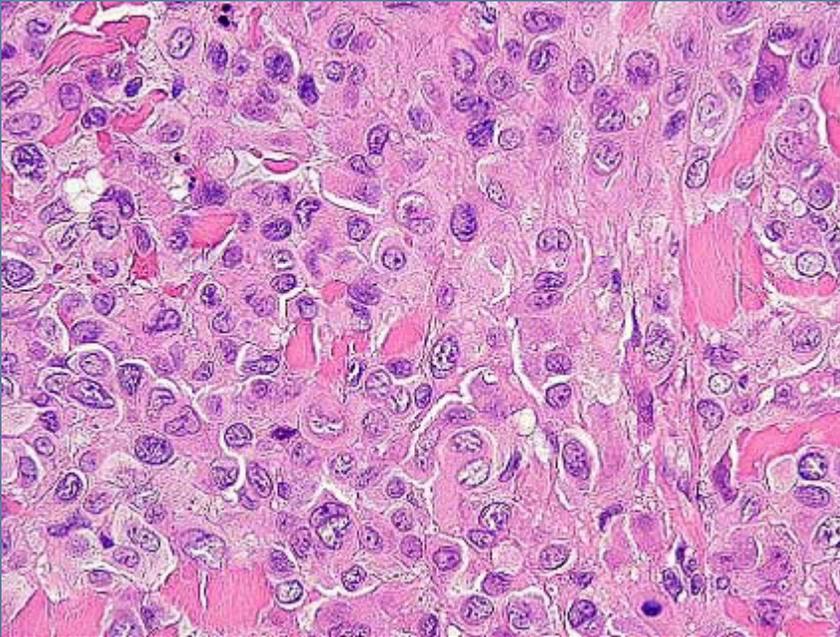
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# Histopathology



- Solitary or multiple with scalloped pushing borders or diffuse infiltration of the adjacent connective tissue
- Fascicular patterns with perineural spread-serpiginous
- Granuloma-like changes
- Central necrosis or necrobiosis with acellular eosinophilic collagen

# Histopathology



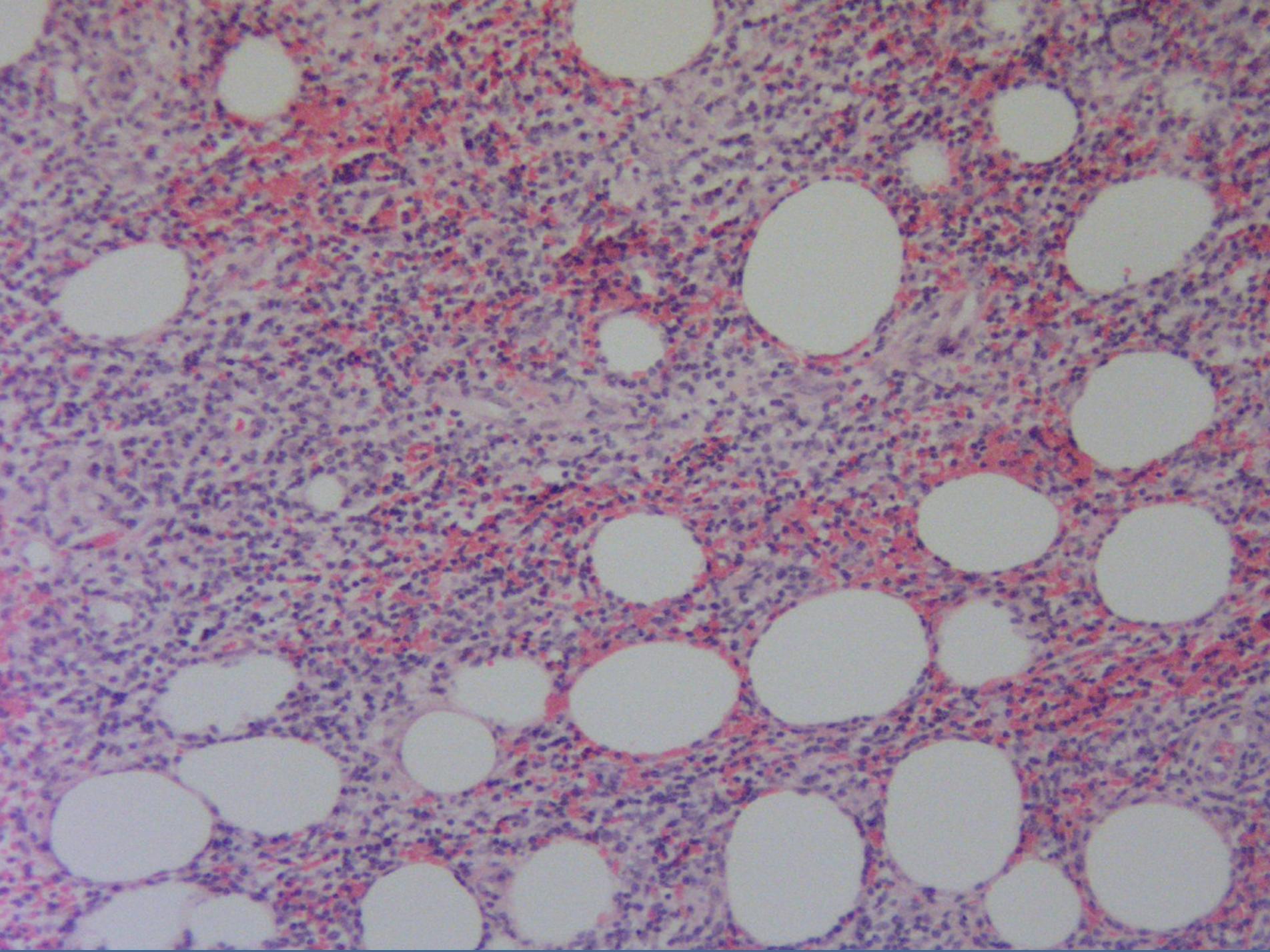
- Spindle cells and epithelioid cells with variable atypia
- Positive:
  - Vimentin
  - Low and high molecular weight keratins

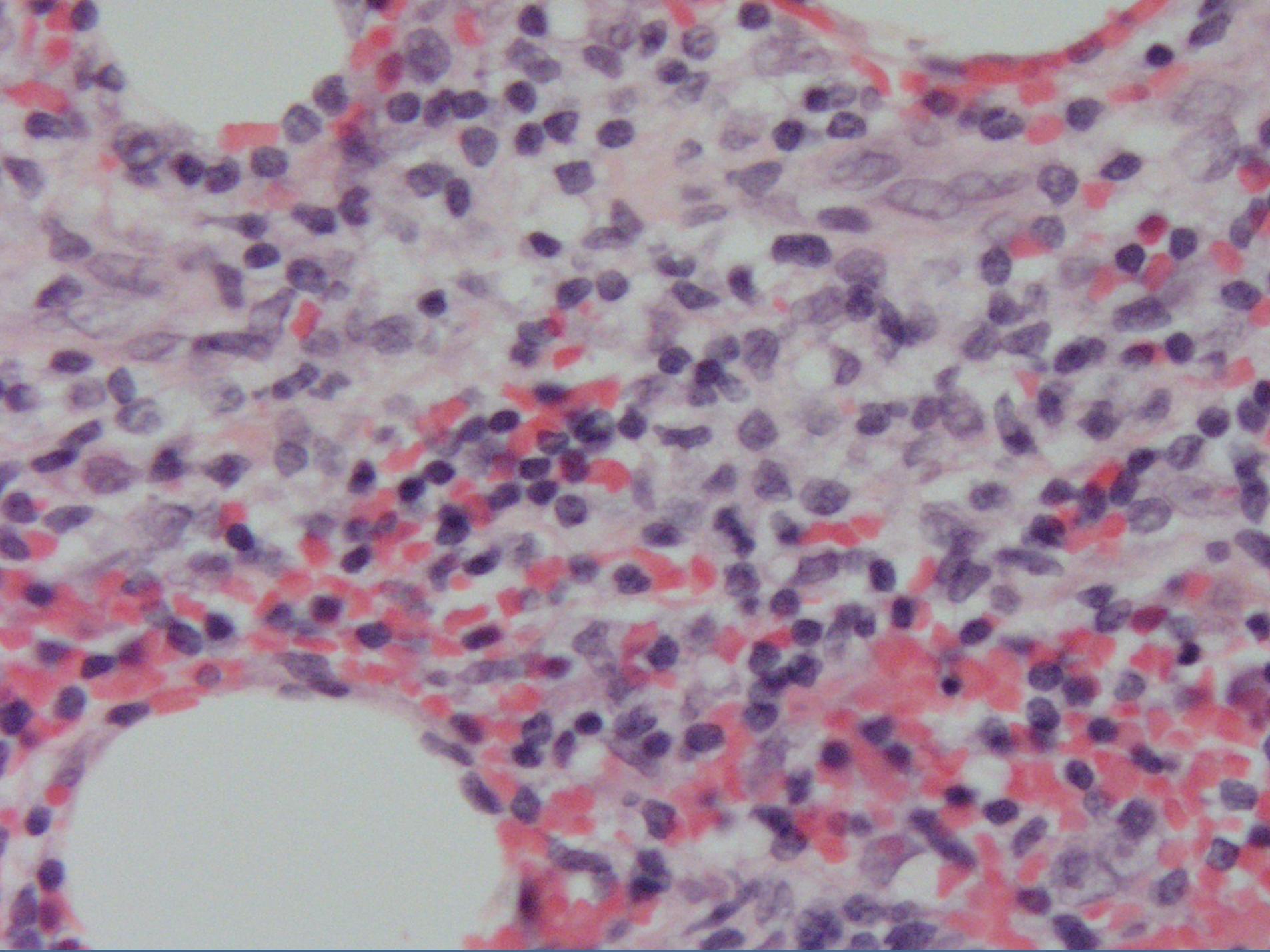
# Proximal Variant

- 13 to 80 years (mean, 40 yrs)
- Deep soft-tissue or subcutaneous masses (mean: 7.8 cm):
  - Inguinal region
  - Thigh in four
  - Vulva in three
  - Axilla
- Large cells with prominent nucleoli resembling poorly differentiated carcinoma, and a frequent rhabdoid phenotype (60%)
  - Conventional (30%) were classified as the conventional subtype, and two (10%)
  - Angiomatoid (10%)
- IPOX
  - Vimentin, CK, EMA, CD34
- Local recurrence (65%) and metastases (75%), usually to the lymph nodes
- DOD (65%)

# Differential Diagnosis

- Carcinoma
- Melanoma
- Sarcoma
  - Extra-renal rhabdoid tumor



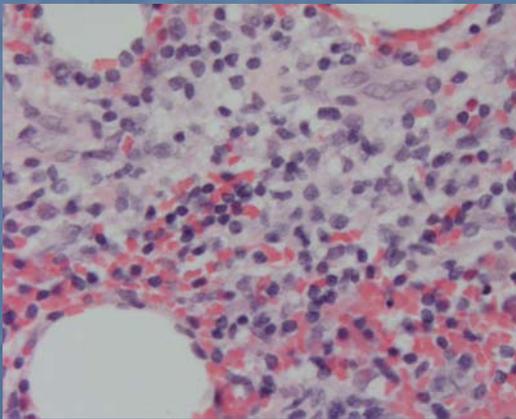
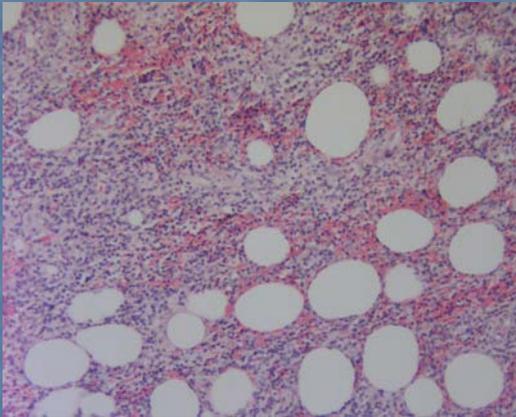


# Subcutaneous T-Cell Lymphoma

# Clinical

- Multiple subcutaneous nodules with fever, hepatosplenomegaly, mucosal ulcers, and serosal effusions
- Disease ranges from an indolent form which has sometimes been referred to as cytophagic histiocytic panniculitis (CHP) to a frankly malignant T-cell lymphoma

# Histopathology



- Histiocytes and histiocyte-like cells are T cells which exhibit phagocytosis of red blood cells
- Mildly to moderately pleomorphic cells
- Scattered tingible body macrophages
- Loss of certain pan T-cell markers, a reduced CD4/8 ratio and TCR rearrangement

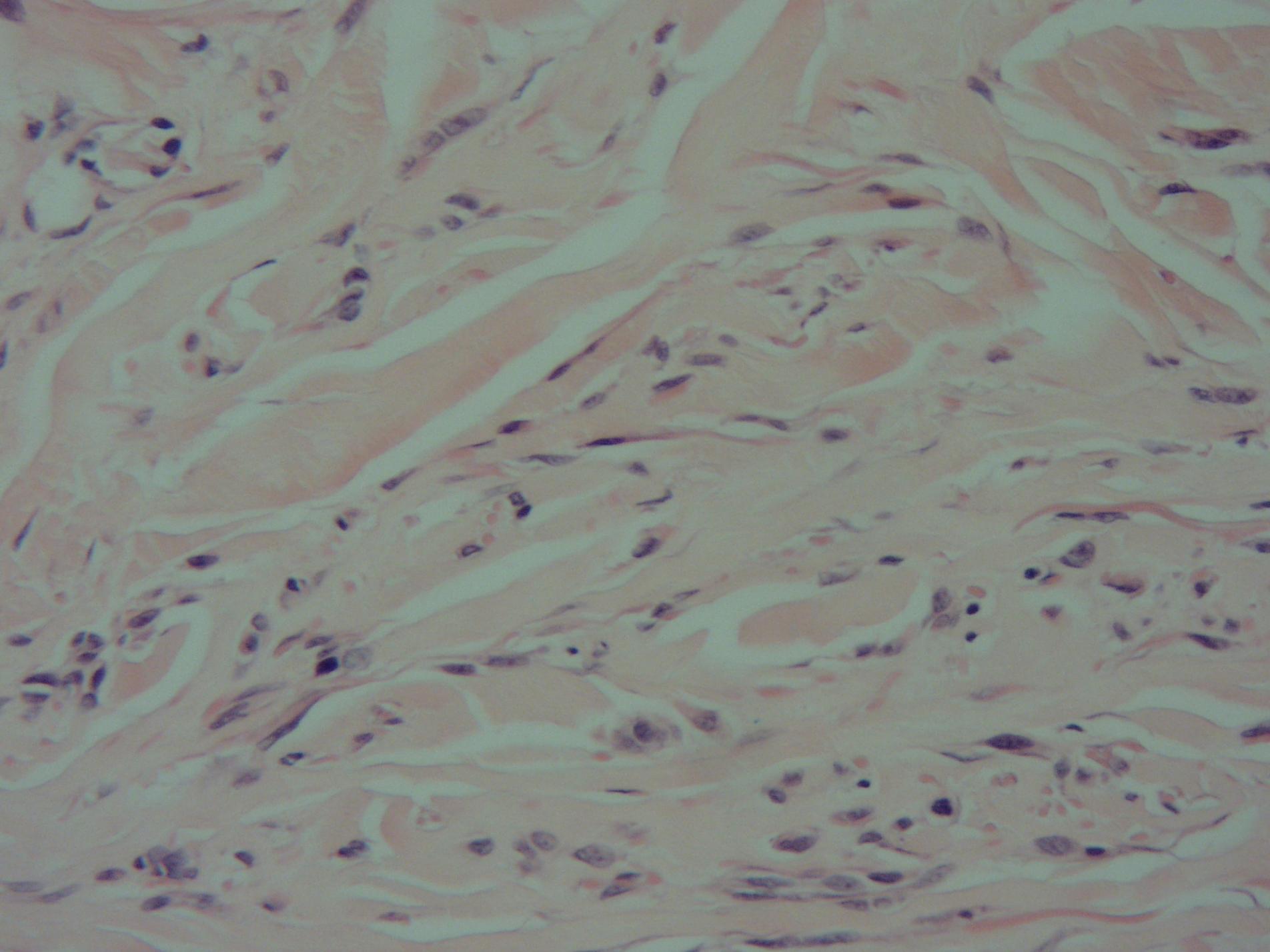
# Course

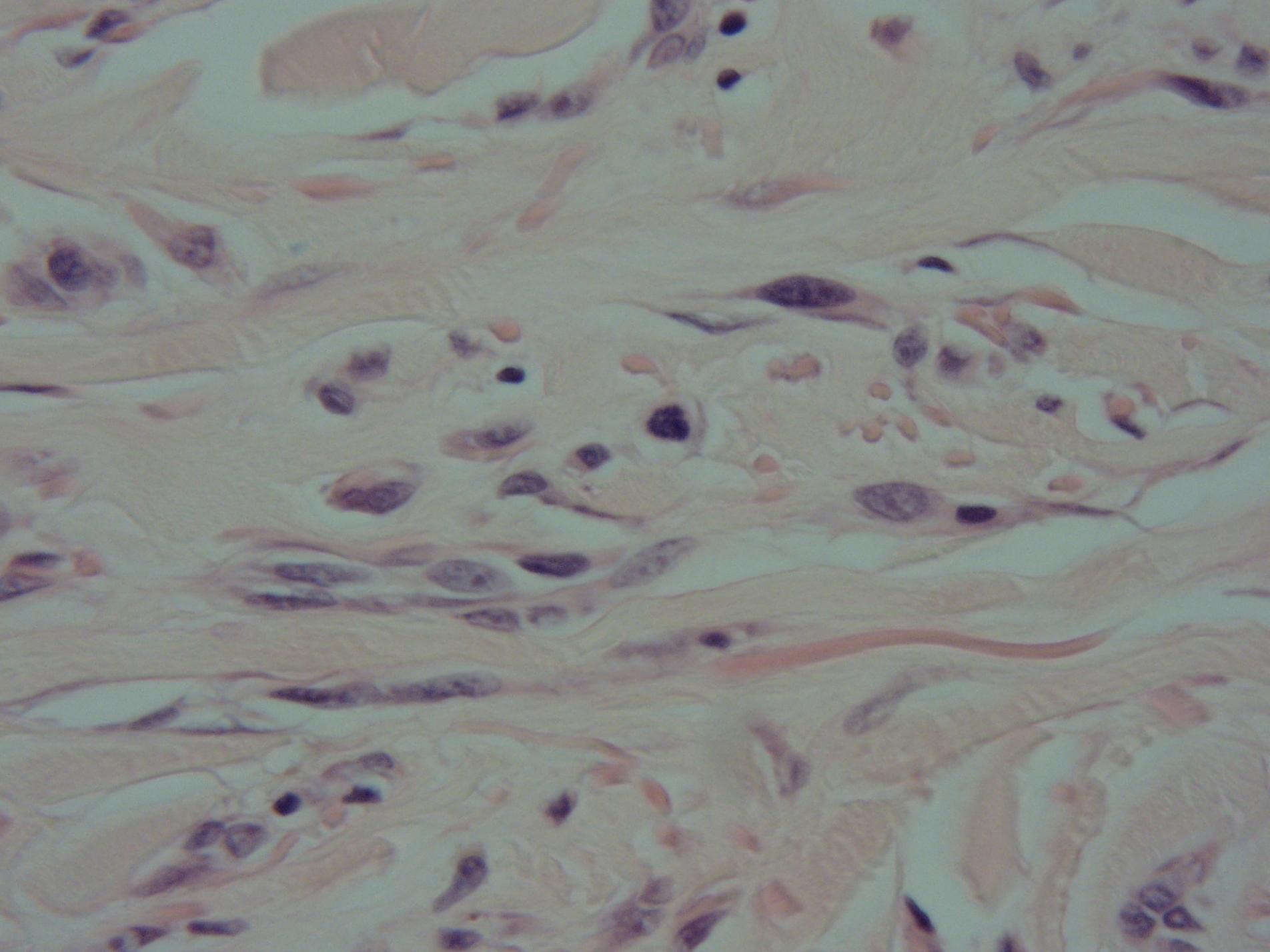
- Two subsets of SPTCL
  - Gamma delta T cells which carry a poor prognosis, and are usually CD56 positive
  - Alpha beta T cells with indolent course
- Median survival was 16 months
  - TCR-beta-negative (2/3) patients died
  - TCR-beta-positive patients-no deaths

# Subcutaneous T-cell Lymphoma

## DDX

- Panniculitis-Lobular
  - LE
- Infection
  - Infection-associated hemophagocytic syndrome (IAHS)



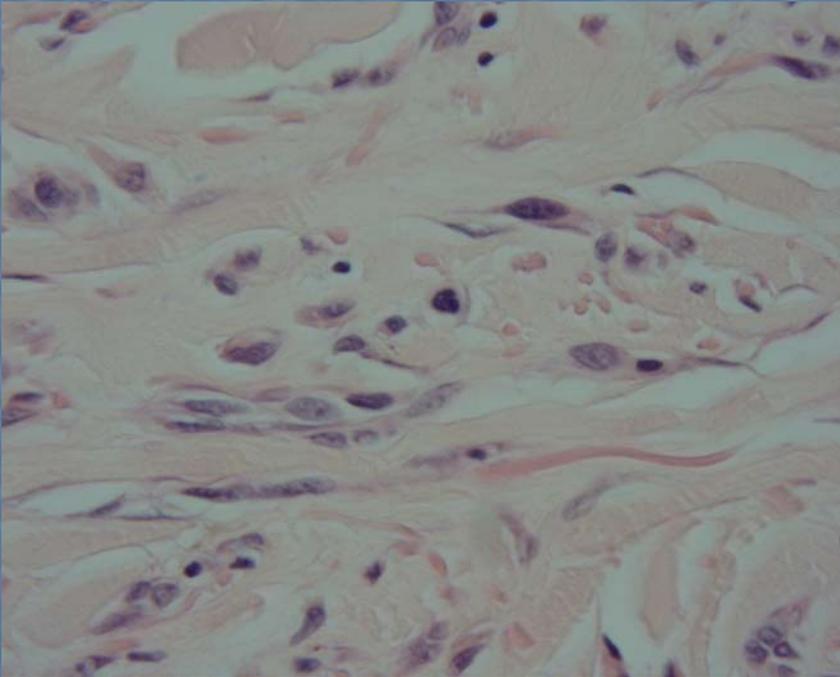


# Desmoplastic Melanoma

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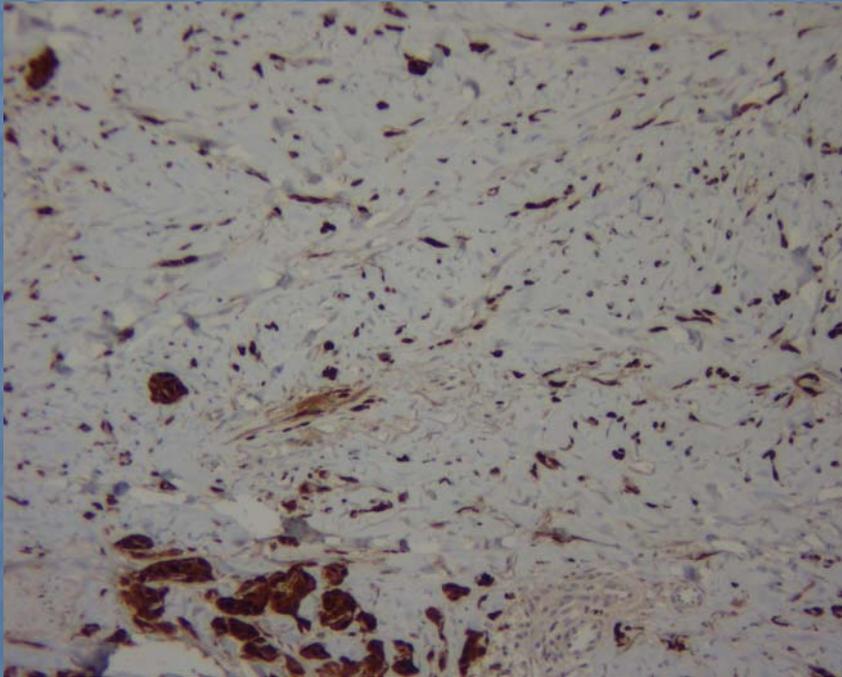
- Usually found on the head and neck
  - Bulky firm fibrous masses of tumour or indurated plaques
  - Usually amelanotic lesions
  - May be associated with areas of lentigo maligna

# Desmoplastic Melanoma



- Poorly demarcated, infiltrating intradermal tumours often with sparse cellularity
- Usually amelanotic
- May have hyperchromatic, atypical nuclei
- Mitotic figures are usually present
- Haphazard, fascicular or storiform growth pattern
- Some make distinction between spindle cell and desmoplastic melanoma based on dermal response
- May have deep collections of lymphocytes and plasma cells
- Neurotropism correlates with a tendency to local recurrence

# Immunoperoxidase

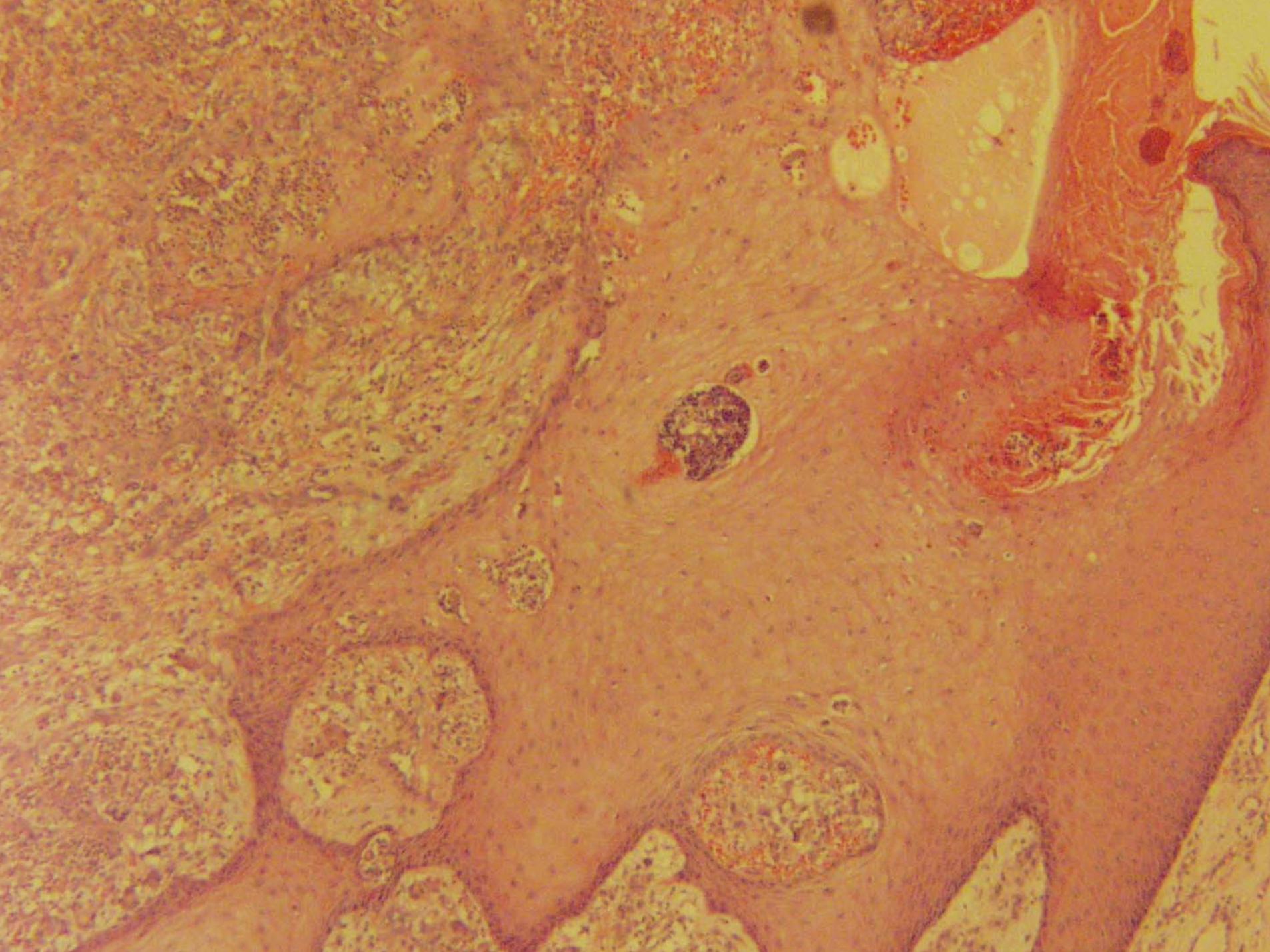


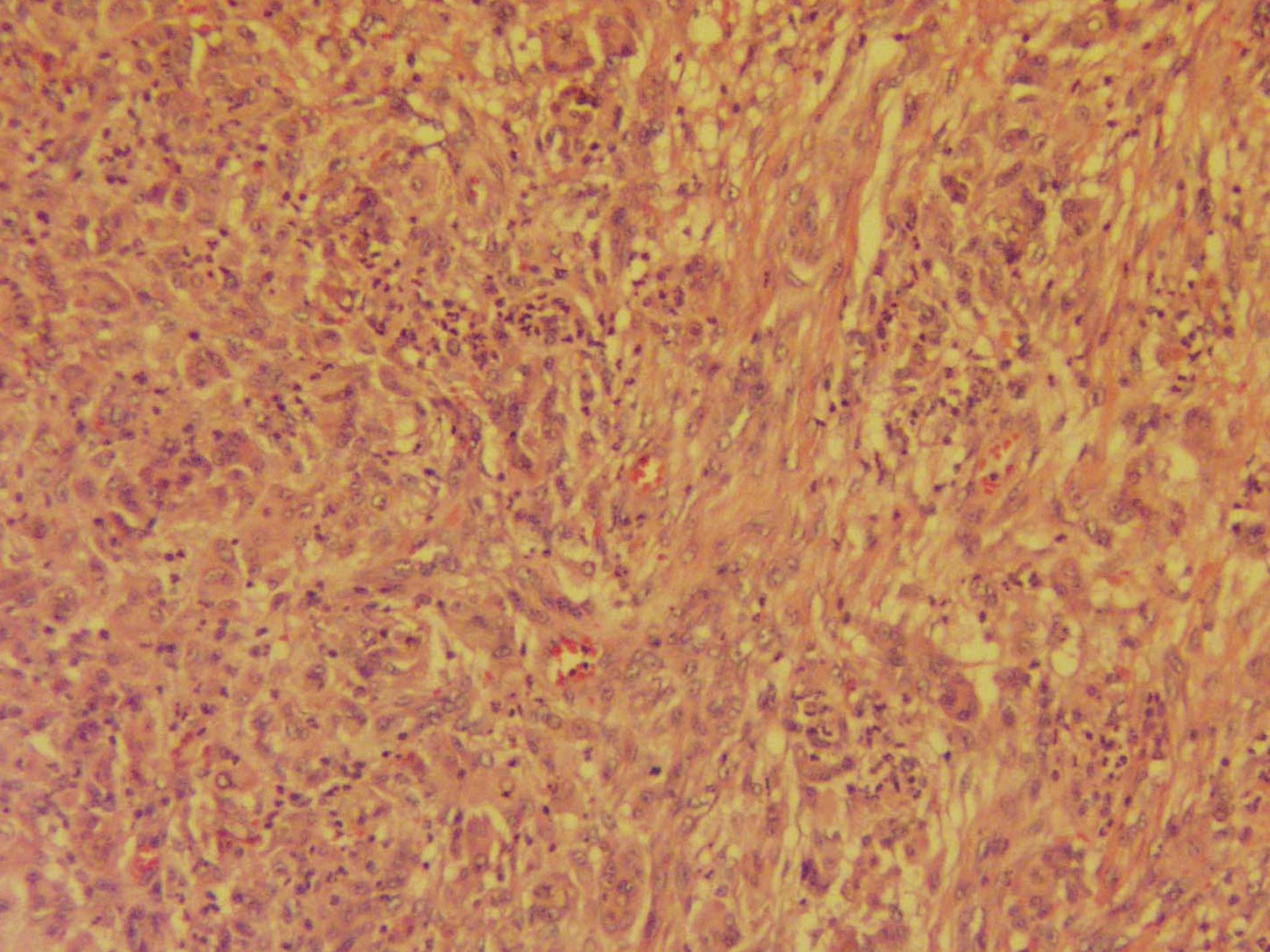
- S100 positive
- Usually negative:
  - HMB45
  - Mart-1
  - Anti-tyrosinase
  - Anti-microphthalmia gene (Mitf)

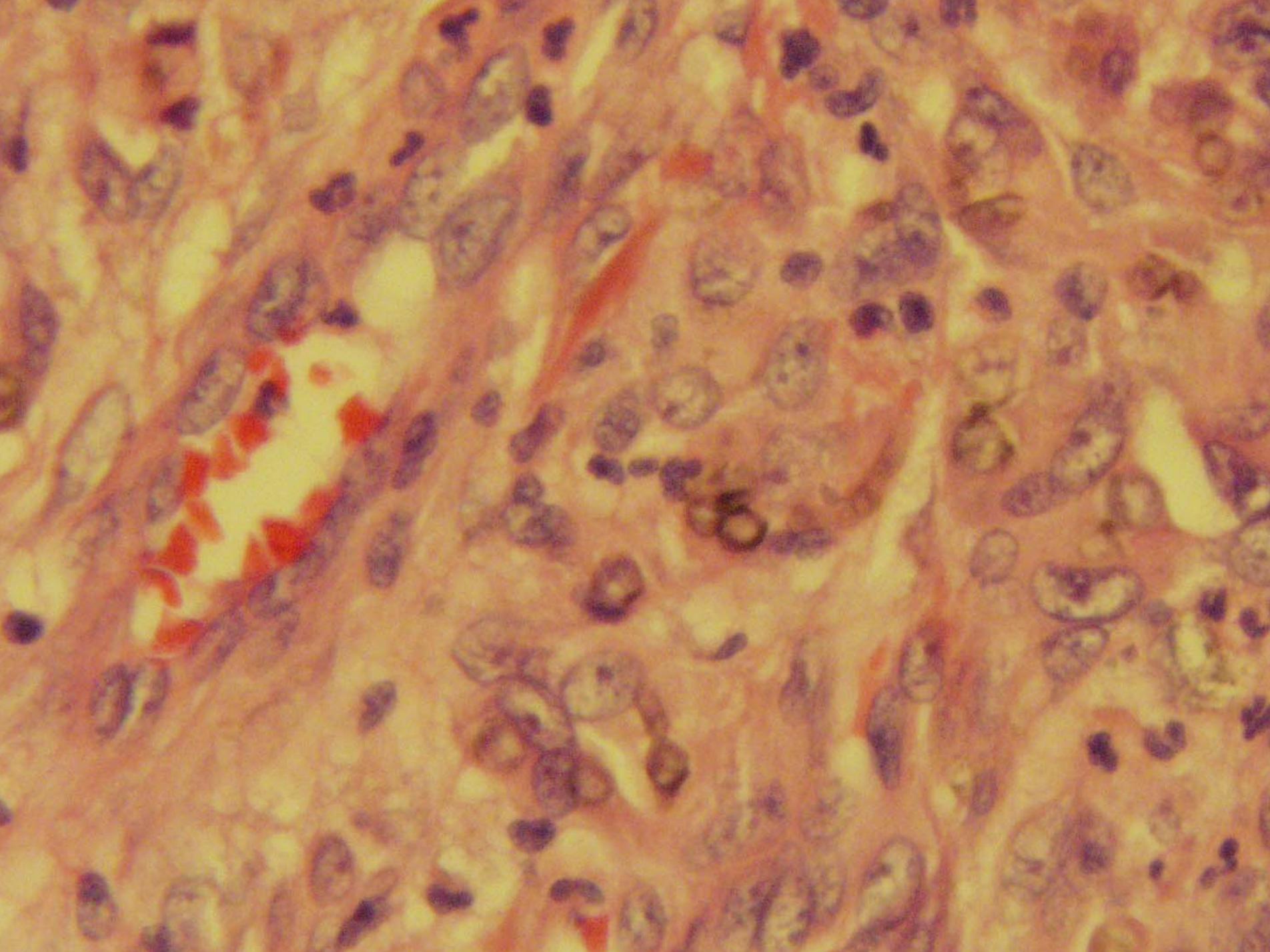
# Desmoplastic Melanoma

## DDX

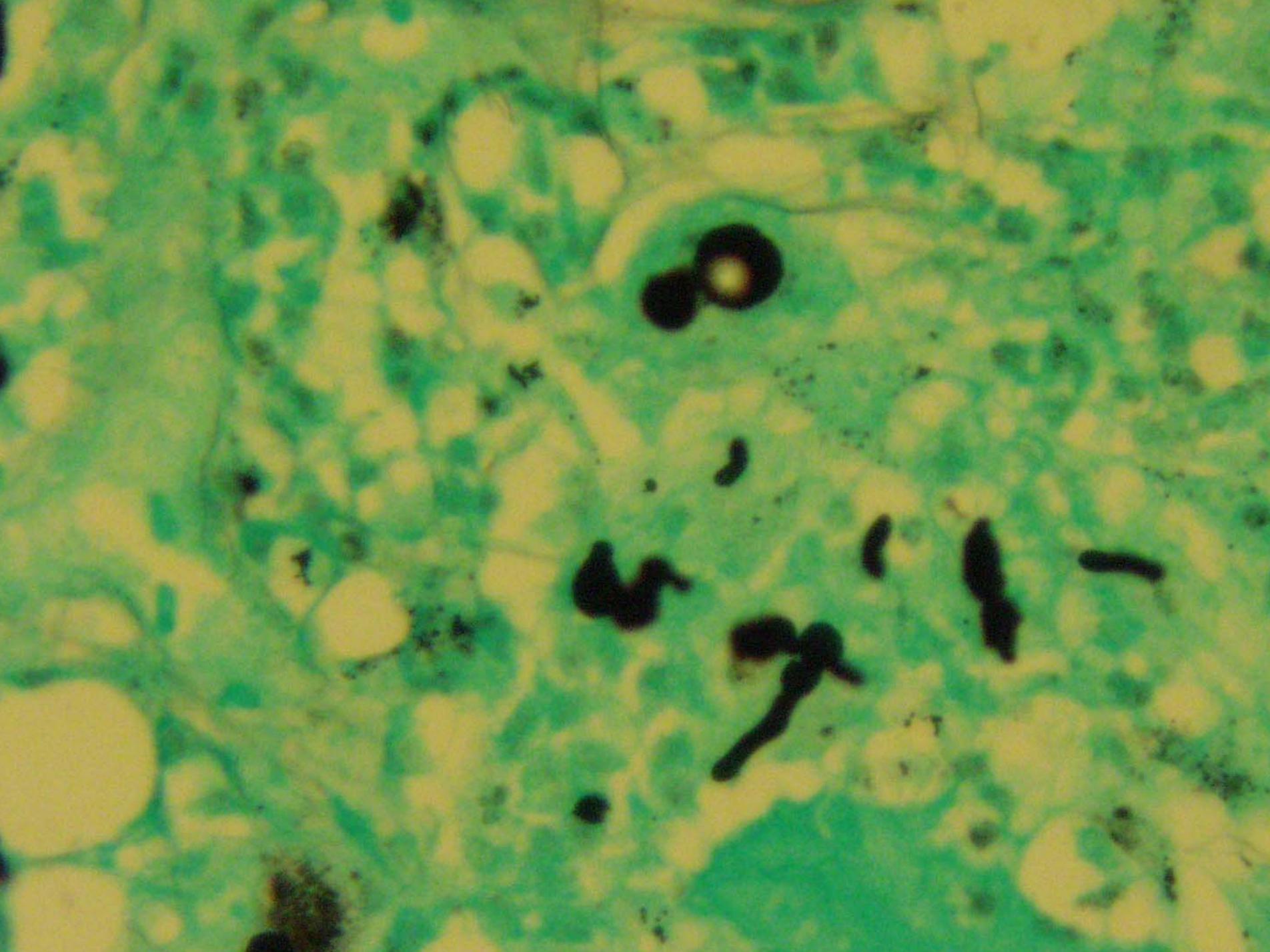
- Scar
- Neurofibroma







# Chromoblastomycosis



# Clinical

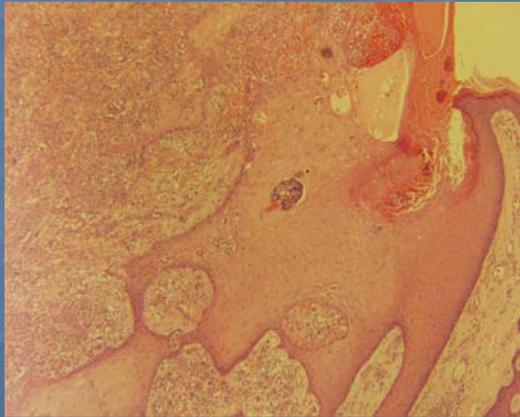
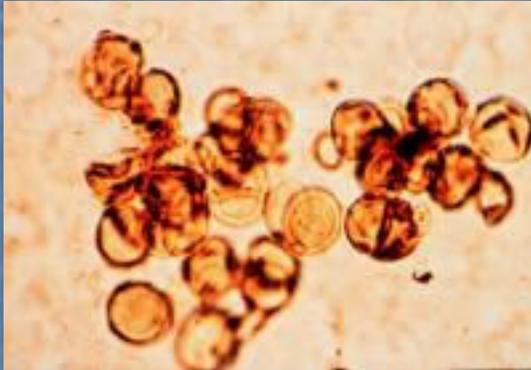
- Chronic localized infection of the skin and subcutaneous tissue that follows the traumatic implantation of fungus
- Verrucoid, ulcerated, and crusted, and may be flat or raised 1-3 cm
- Satellite lesions may develop following autoinoculation and by lymphatic spread
- Elephantiasis and lymphatic stasis can occur as a result of secondary infections



# Causes

- *Phialophora verrucosa*
- *Fonsecaea pedrosoi*
- *Fonsecaea compacta*
- *Cladophialophora carrionii*

# Histopathology



- Pseudoepitheliomatous hyperplasia and keratolytic microabscesses in the epidermis
- Dematiaceous hyphae and sclerotic bodies are found in the stratum corneum
- Sclerotic bodies (Medlar bodies, copper pennies) in the dermal inflammation
  - Round, thick-walled, muriform, chestnut brown, and 5-12  $\mu\text{m}$  in diameter

# Chromoblastomycosis

## DDX

- Squamous cell carcinoma
- Verruca vulgaris
- Perforating disorder
- Halogenoderma

# Treatment

- Early stages
  - Surgical excision, electrodesiccation, cryosurgery or topical antifungals (Thiabendazole, 5-fluorocytosine, and amphotericin B)
- Advanced
  - Systemic Itraconazole and terbinafine are the drugs of choice

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# Questions



- The art of life is to show your hand. There is no diplomacy like candor. You may lose by it now and then, but it will be a loss well gained if you do. Nothing is so boring as having to keep up a deception.

---E. V. Lucas