

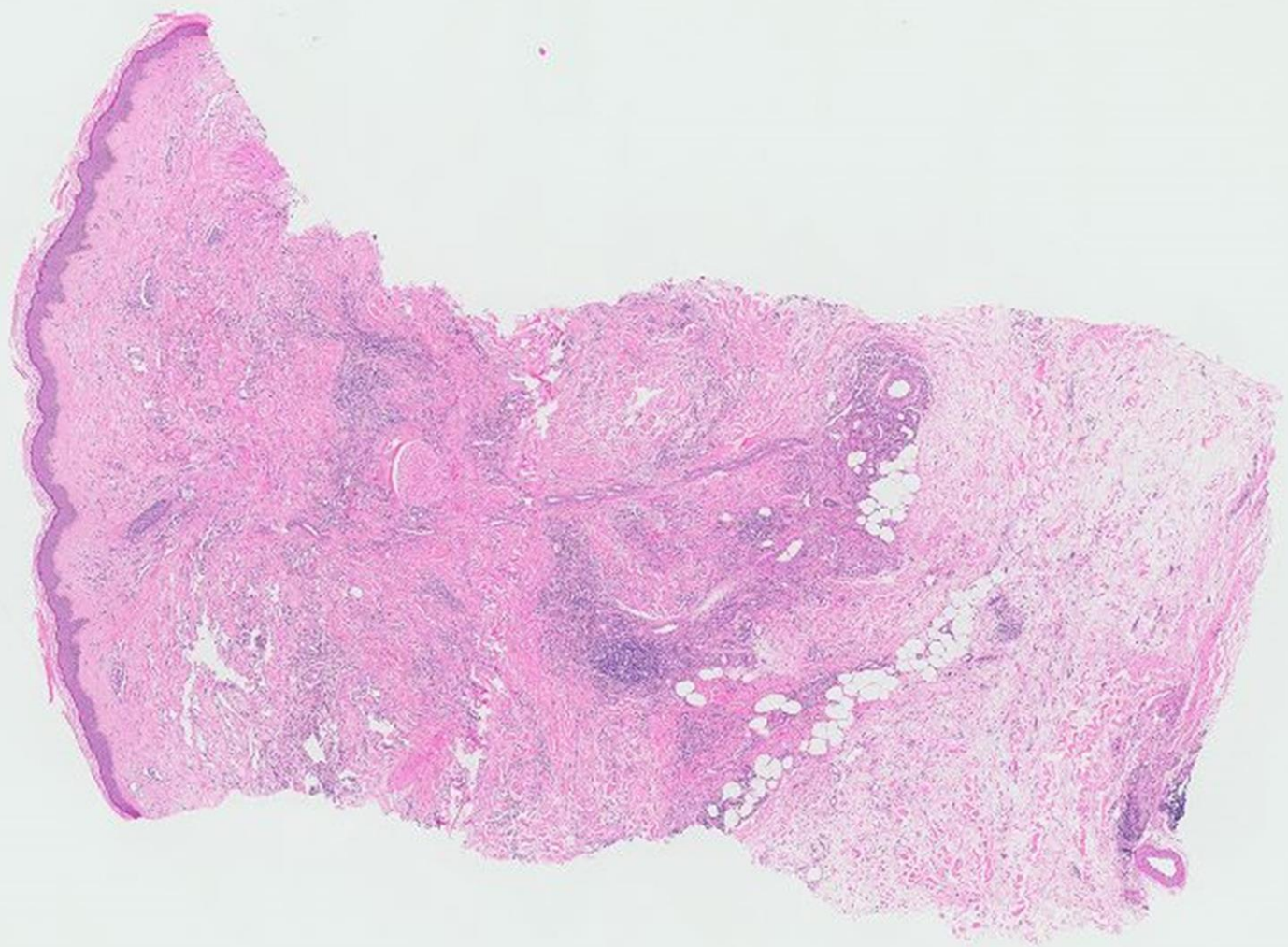
# Case 29

77 year old Chinese lady with past history of left breast cancer in the 1980s, status post-mastectomy with axillary clearance and radiotherapy, had suffered from chronic lymphoedema of the left arm since 2000s.

She developed a red plaque over the left forearm a year ago which was persistent and enlarging.

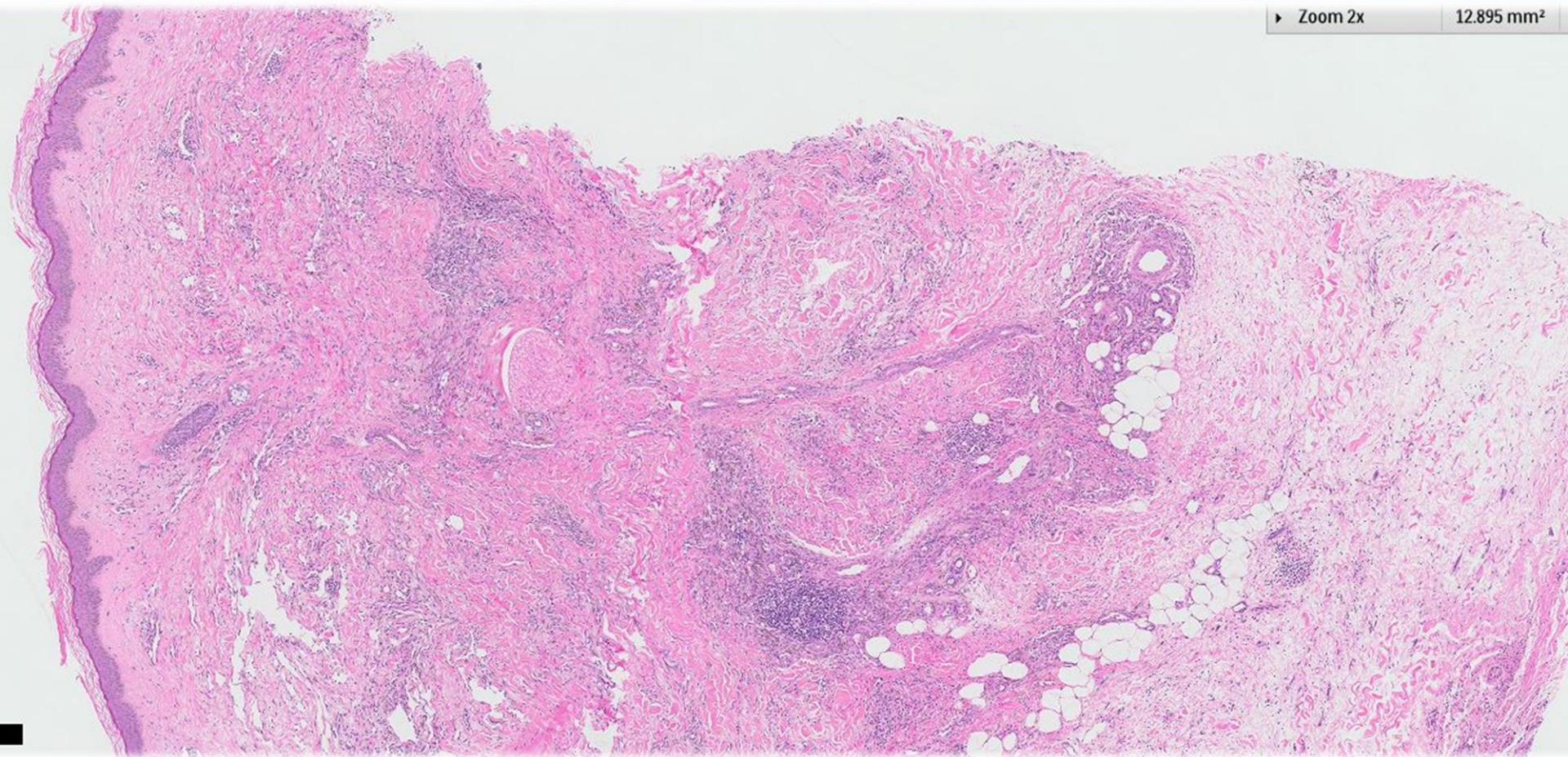
Punch biopsy from the red plaque on the left forearm skin.





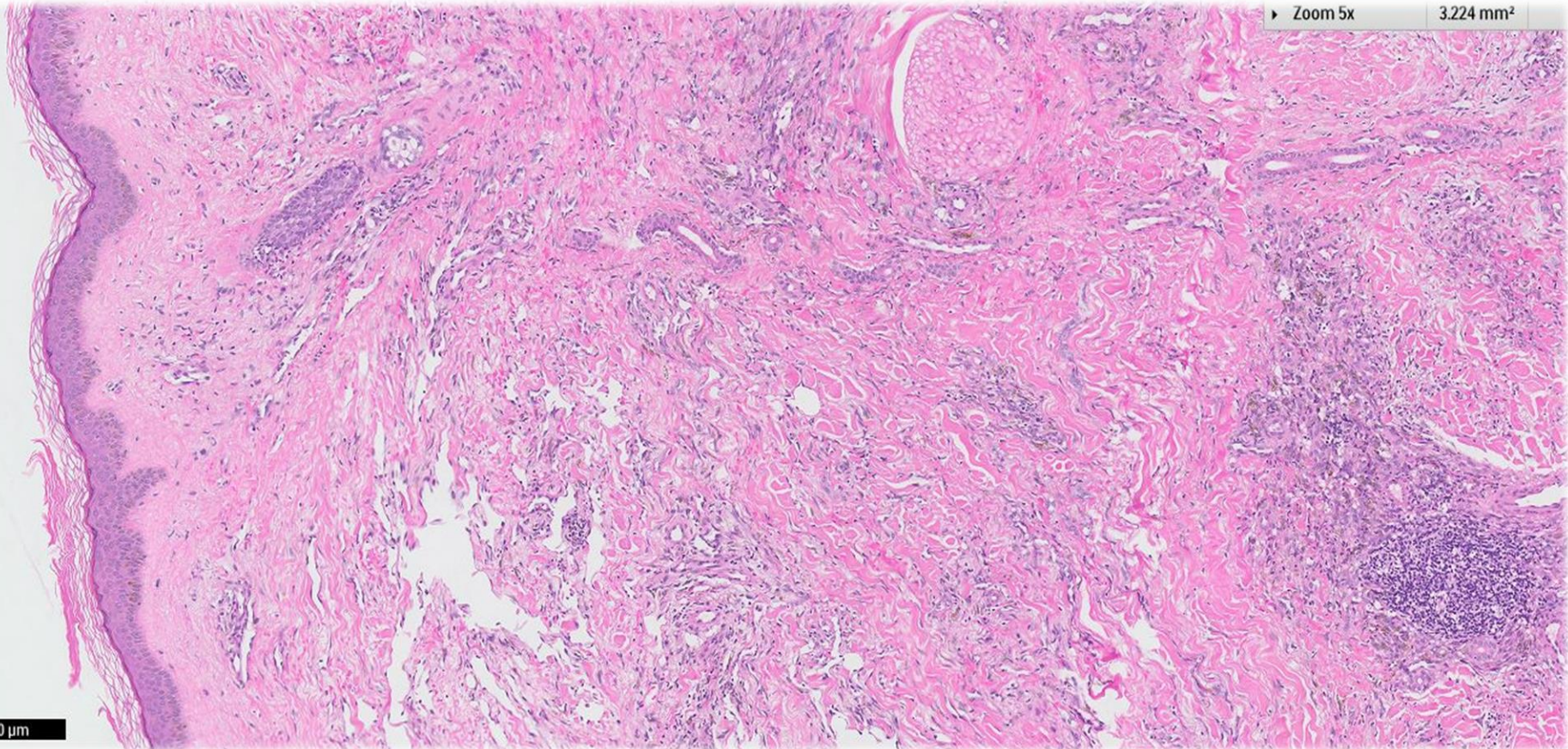
▶ Zoom 2x

12.895 mm<sup>2</sup>



▶ Zoom 5x

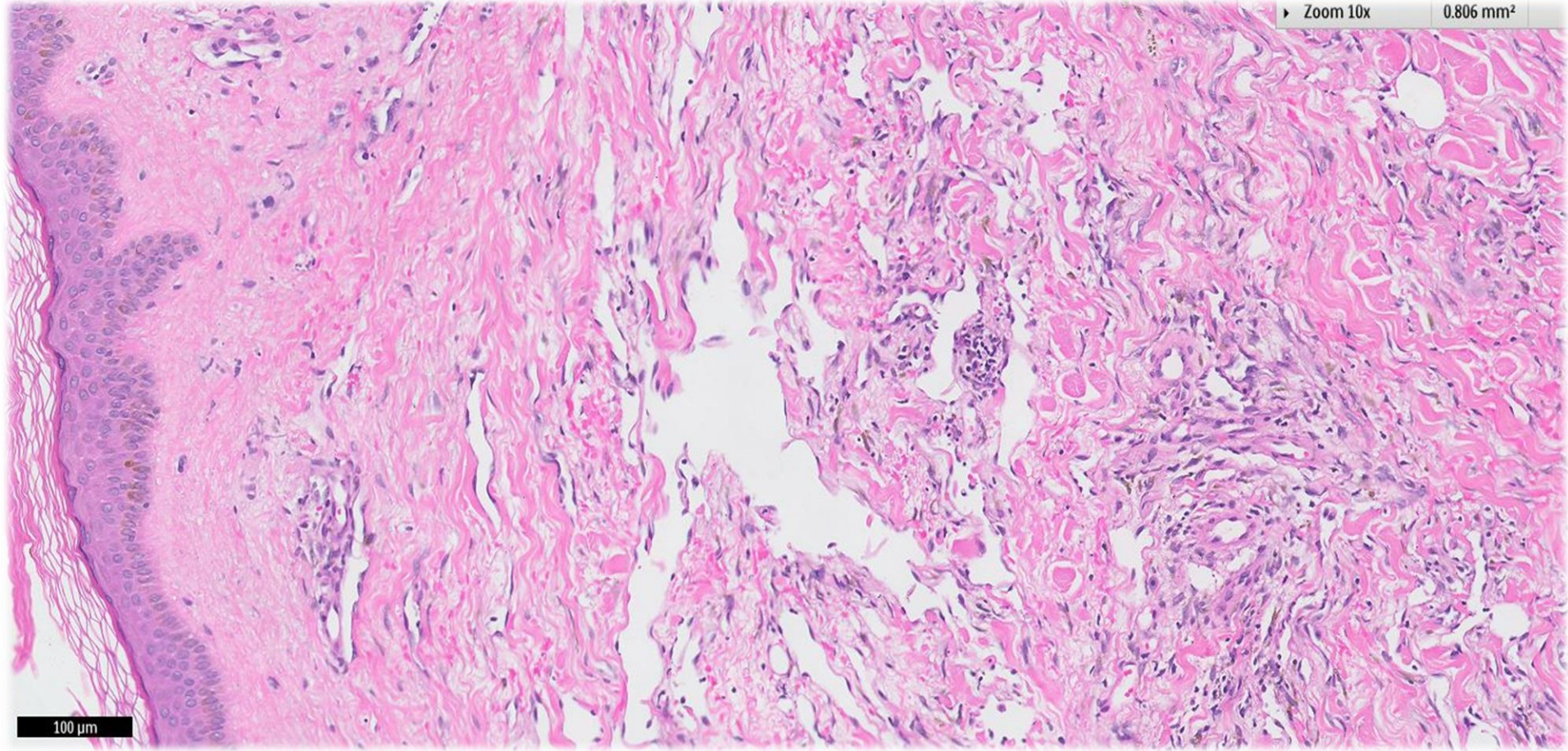
3.224 mm<sup>2</sup>



200 μm

► Zoom 10x

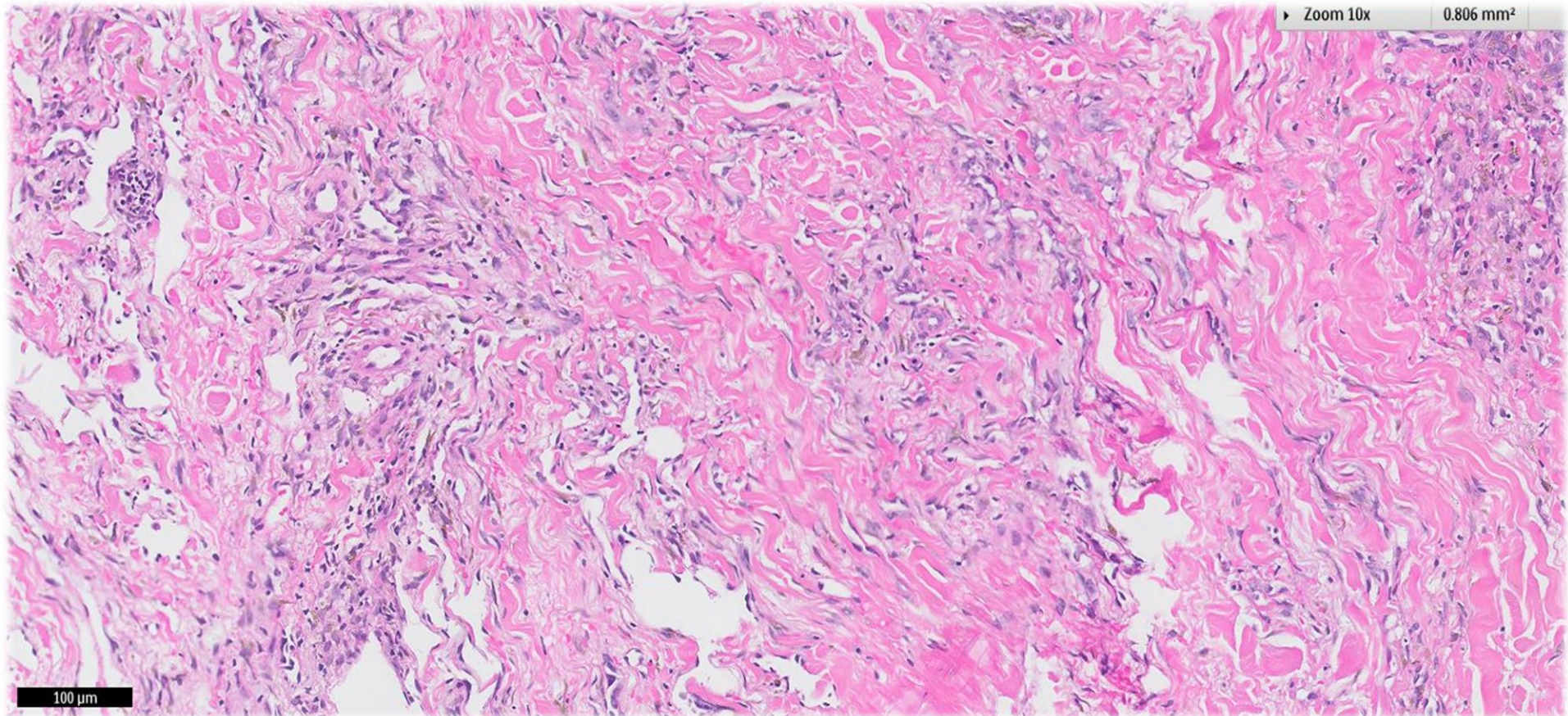
0.806 mm<sup>2</sup>



100 μm

▶ Zoom 10x

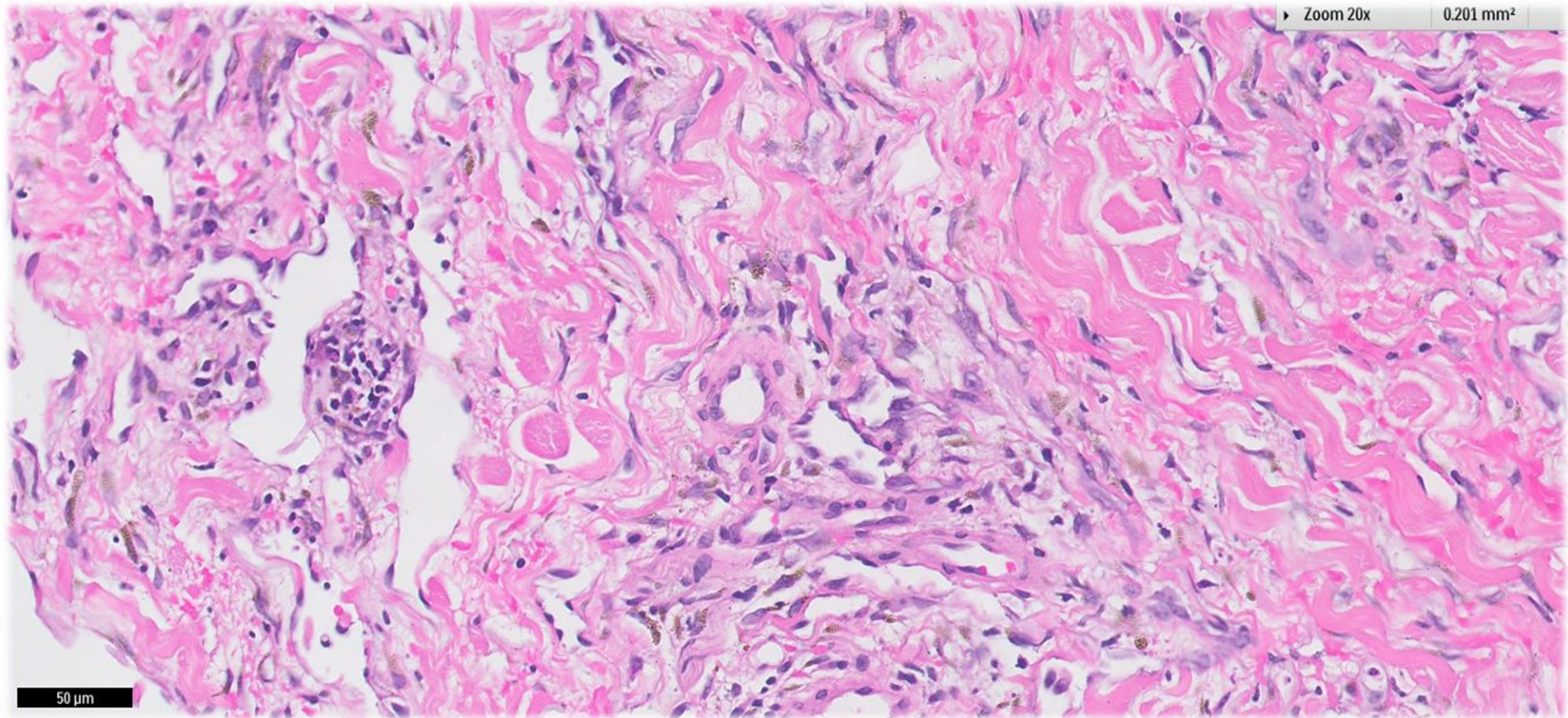
0.806 mm<sup>2</sup>



100 μm

▶ Zoom 20x

0.201 mm<sup>2</sup>

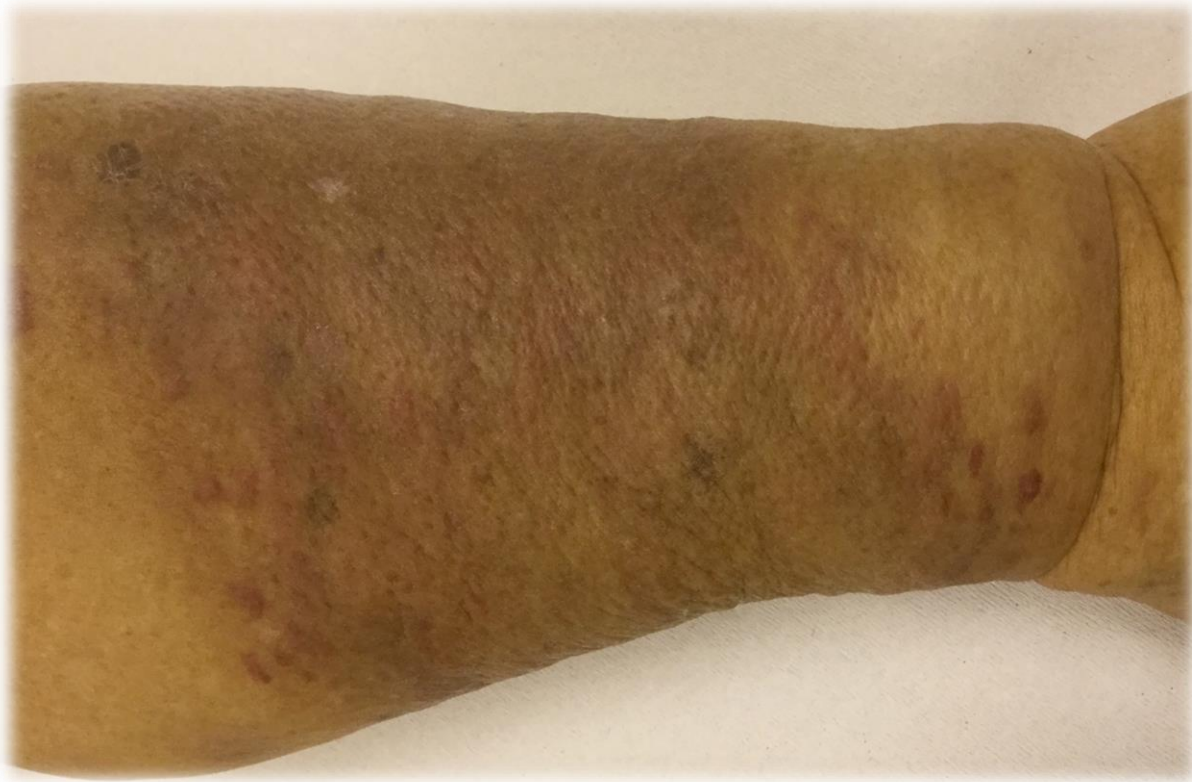


50 μm

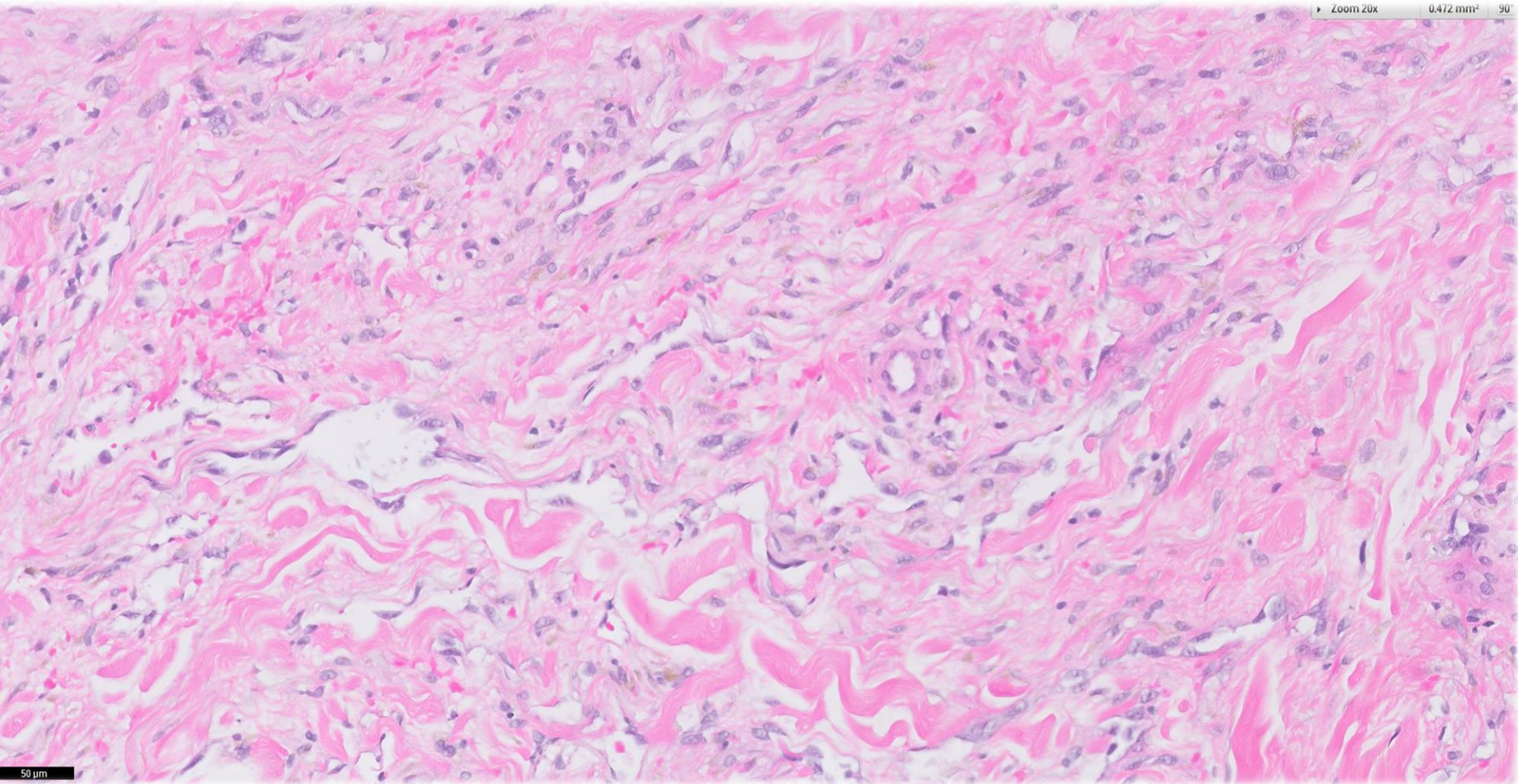
*View from Level 7 Diagnostics Tower Academia*

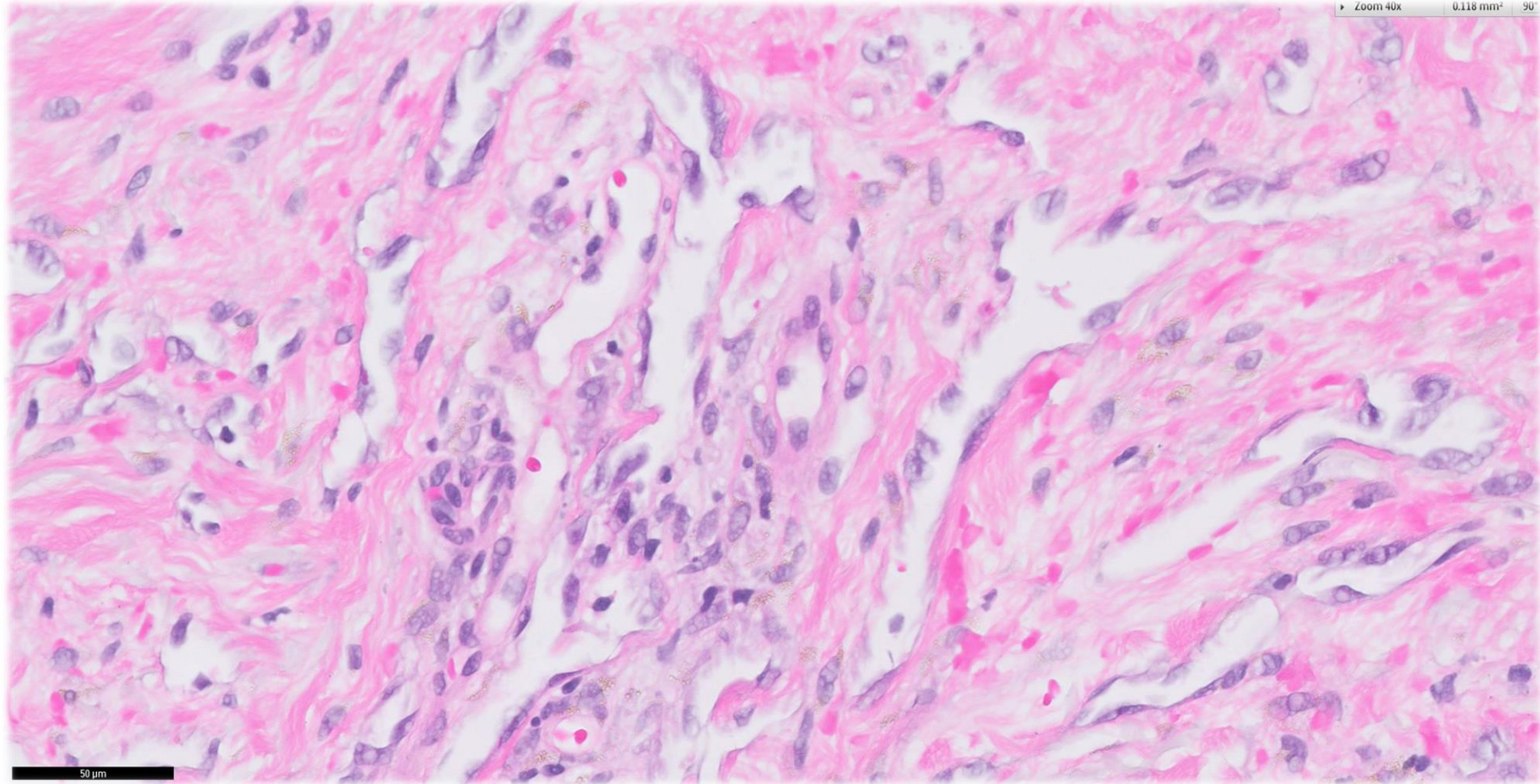


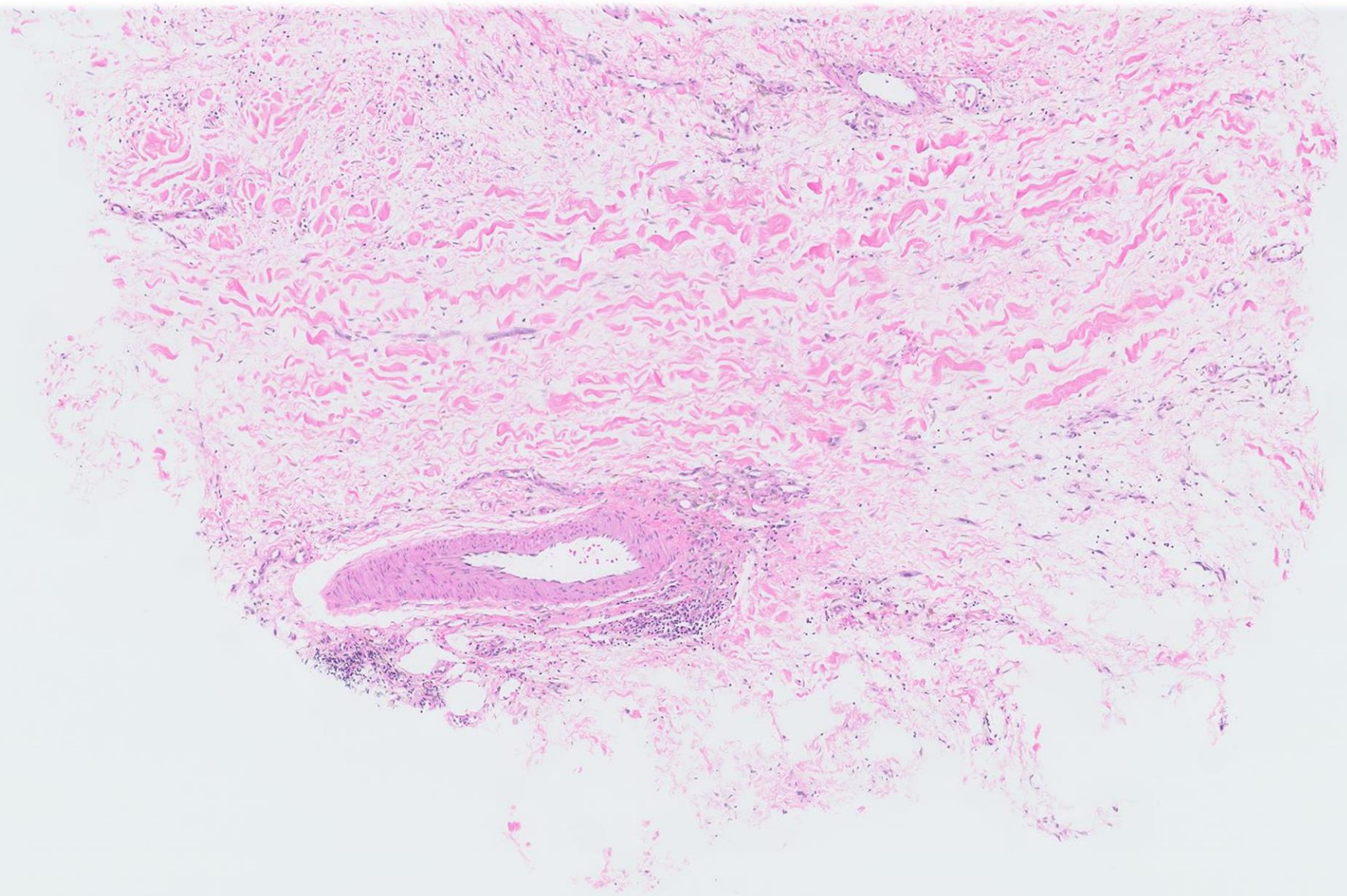


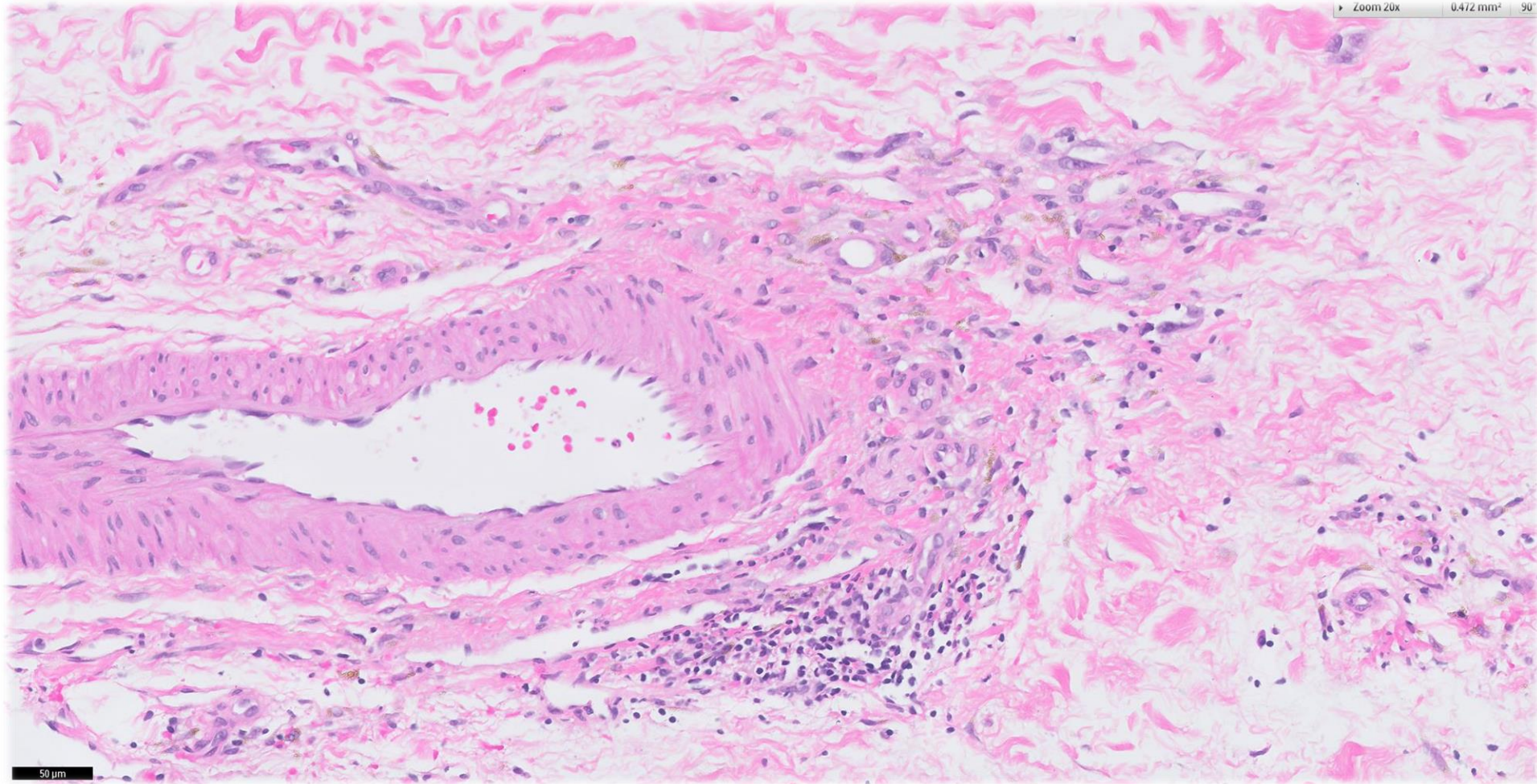


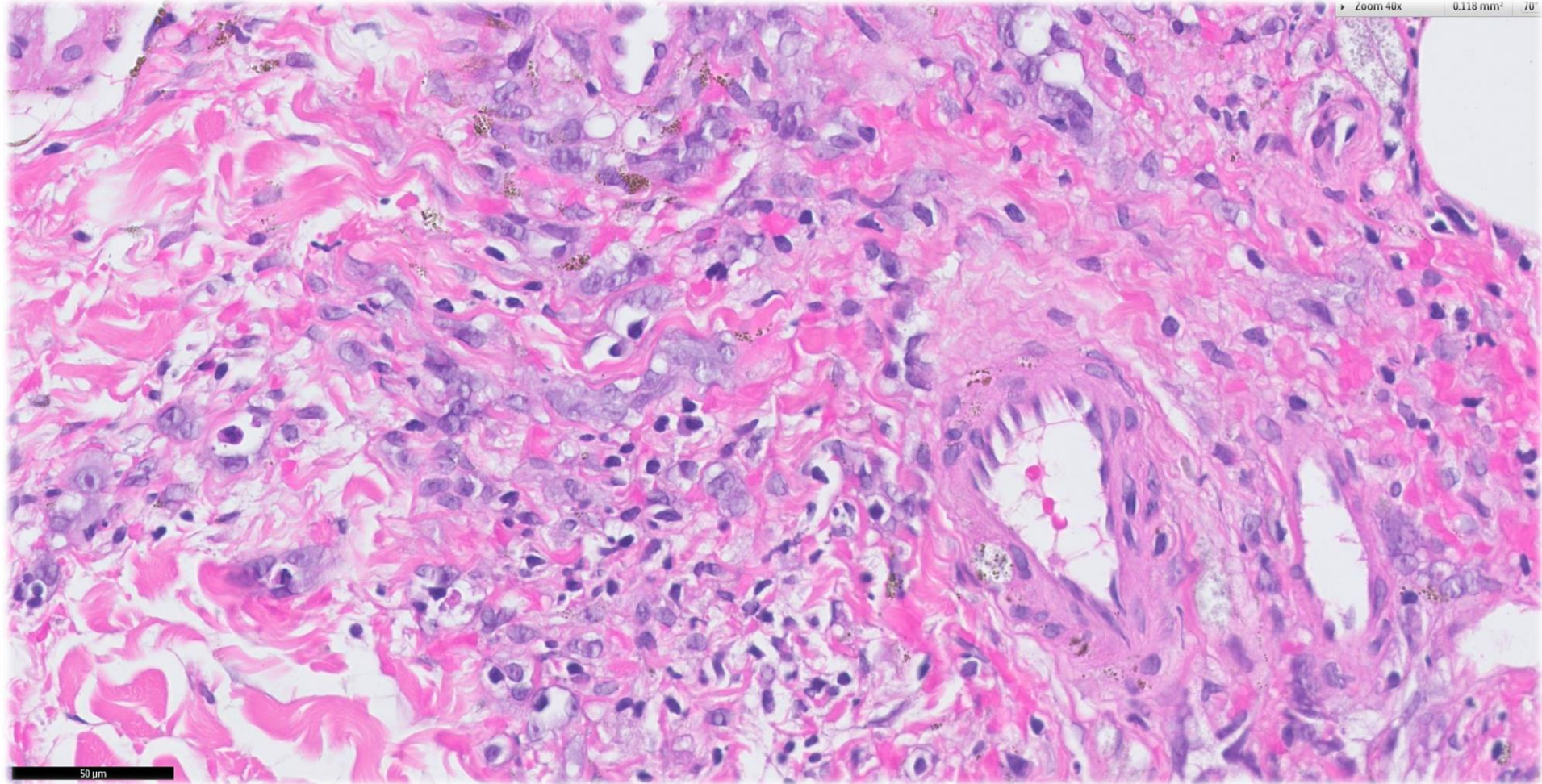
*Courtesy of Dr Ronald Goh & Dr Hong-Yi Koh*



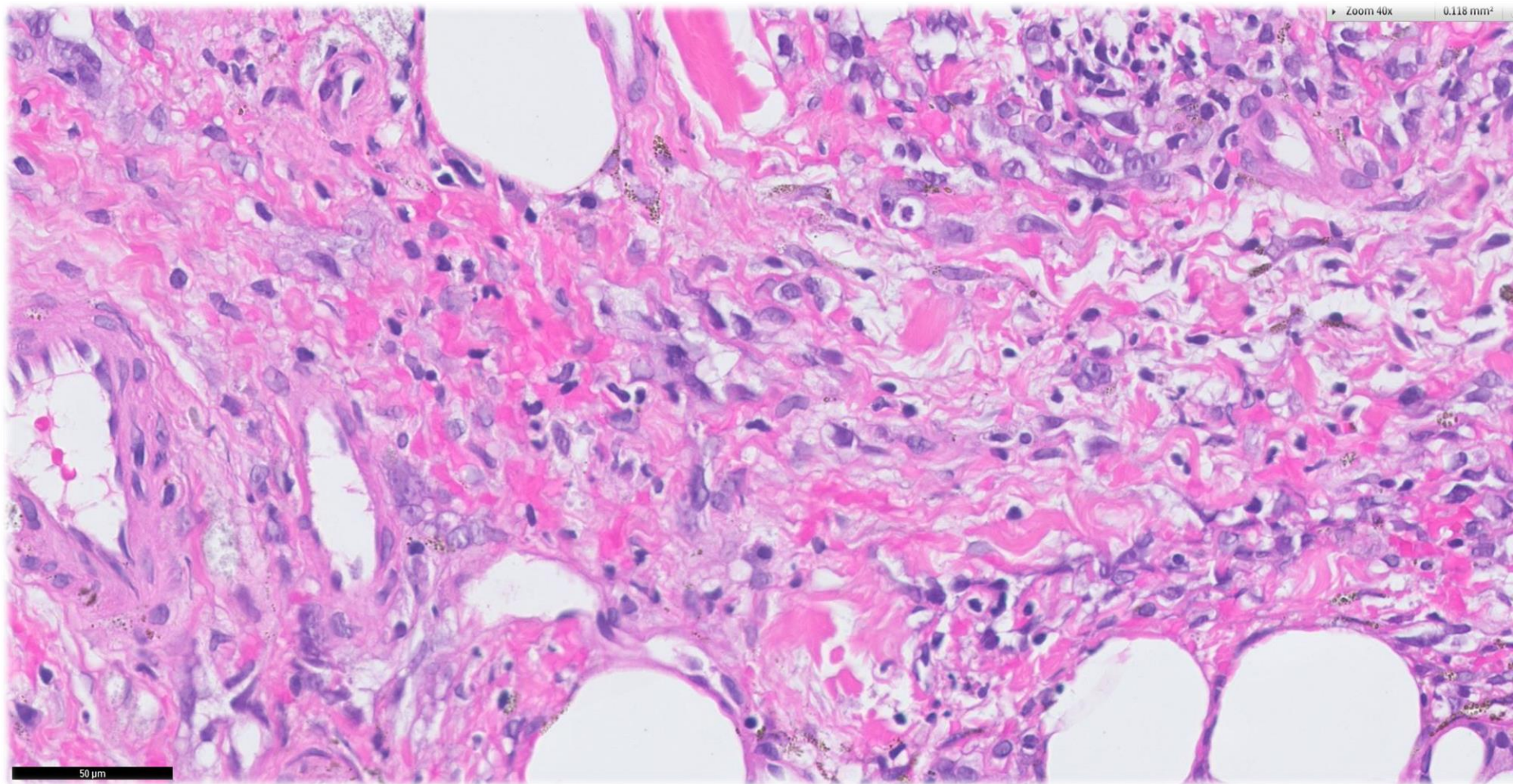




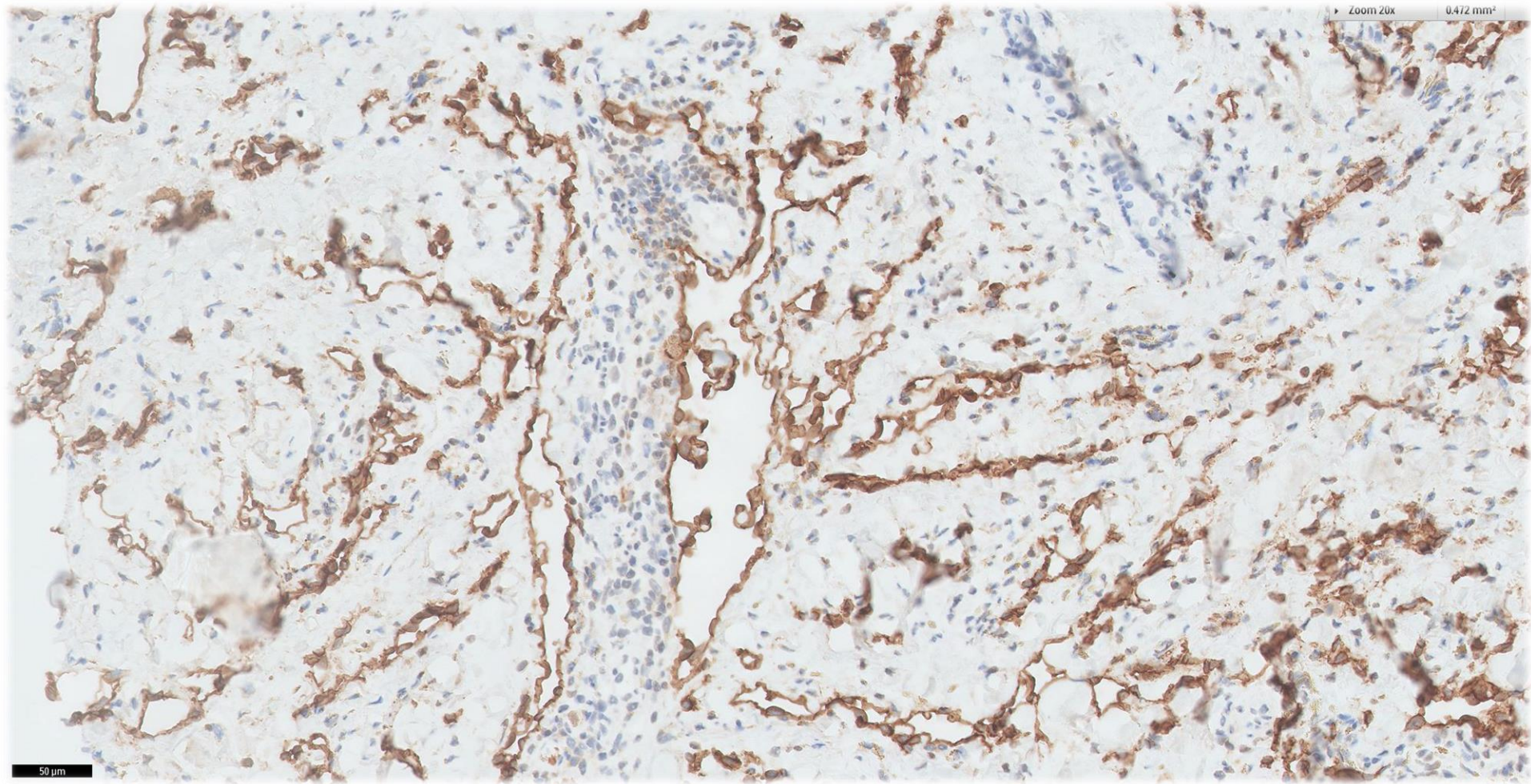




50 μm



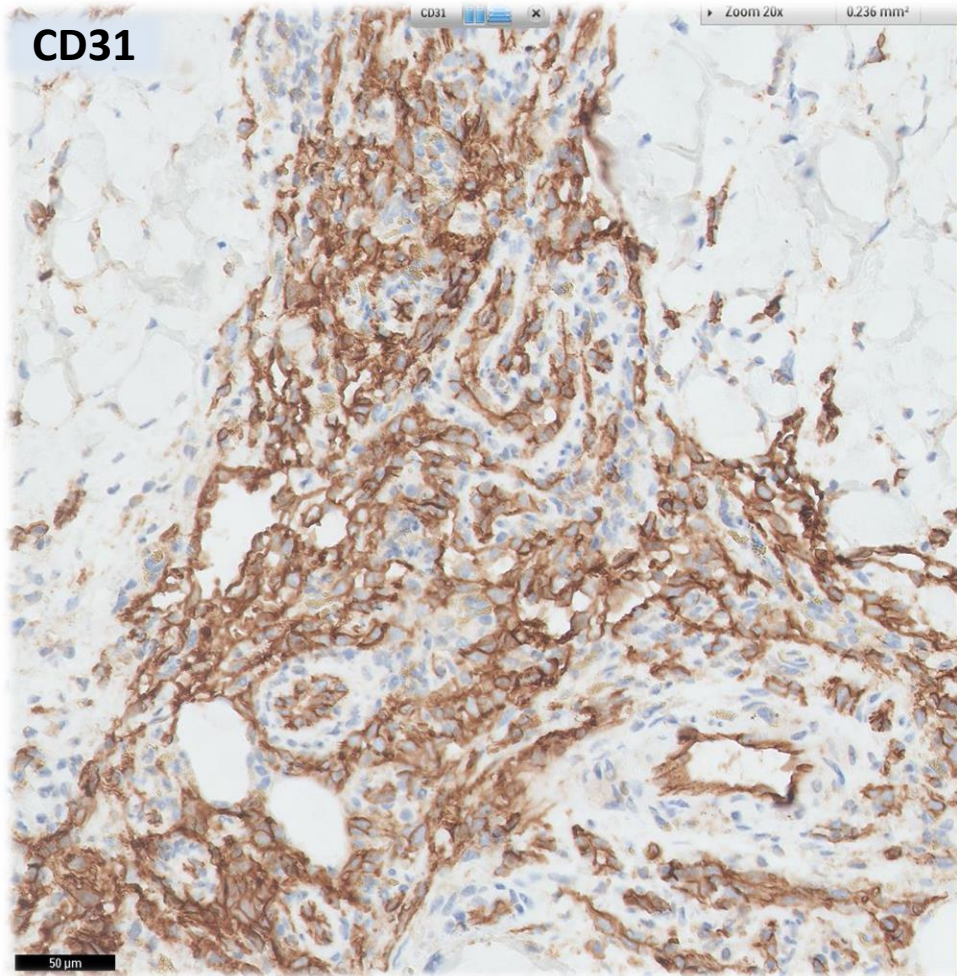
D2-40



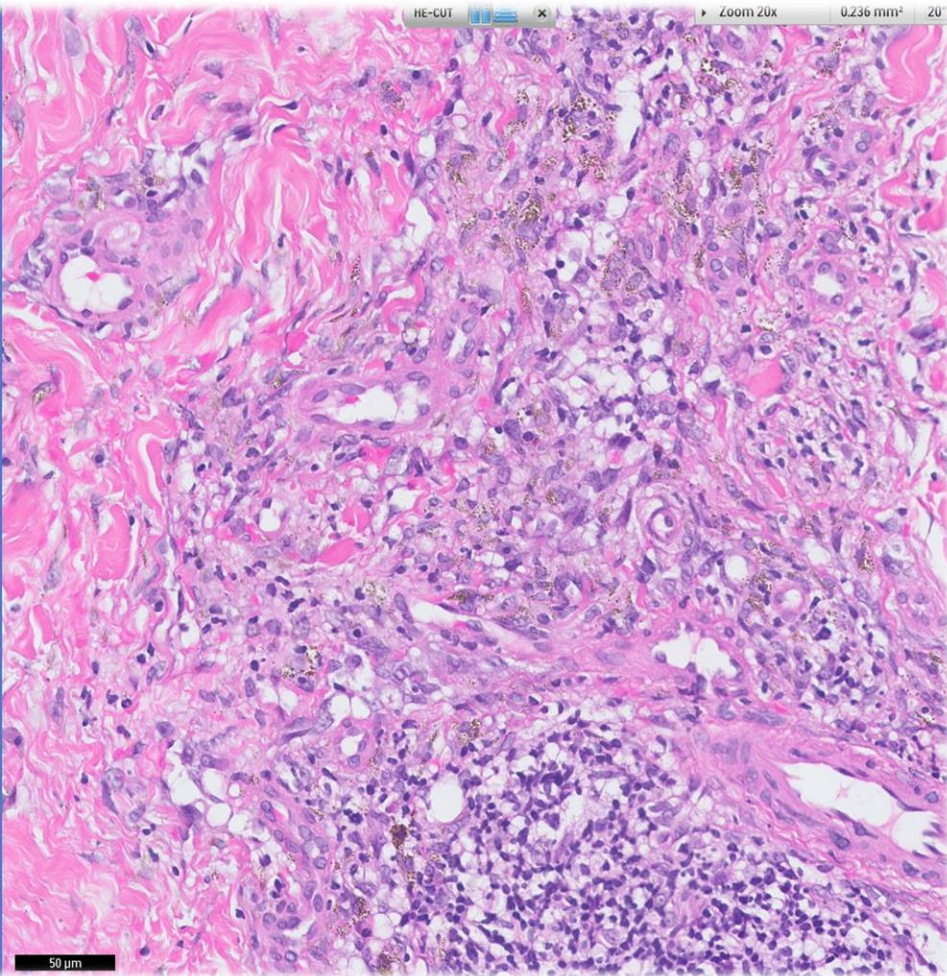


**CD31**

CD31 Zoom 20x 0.236 mm<sup>2</sup>

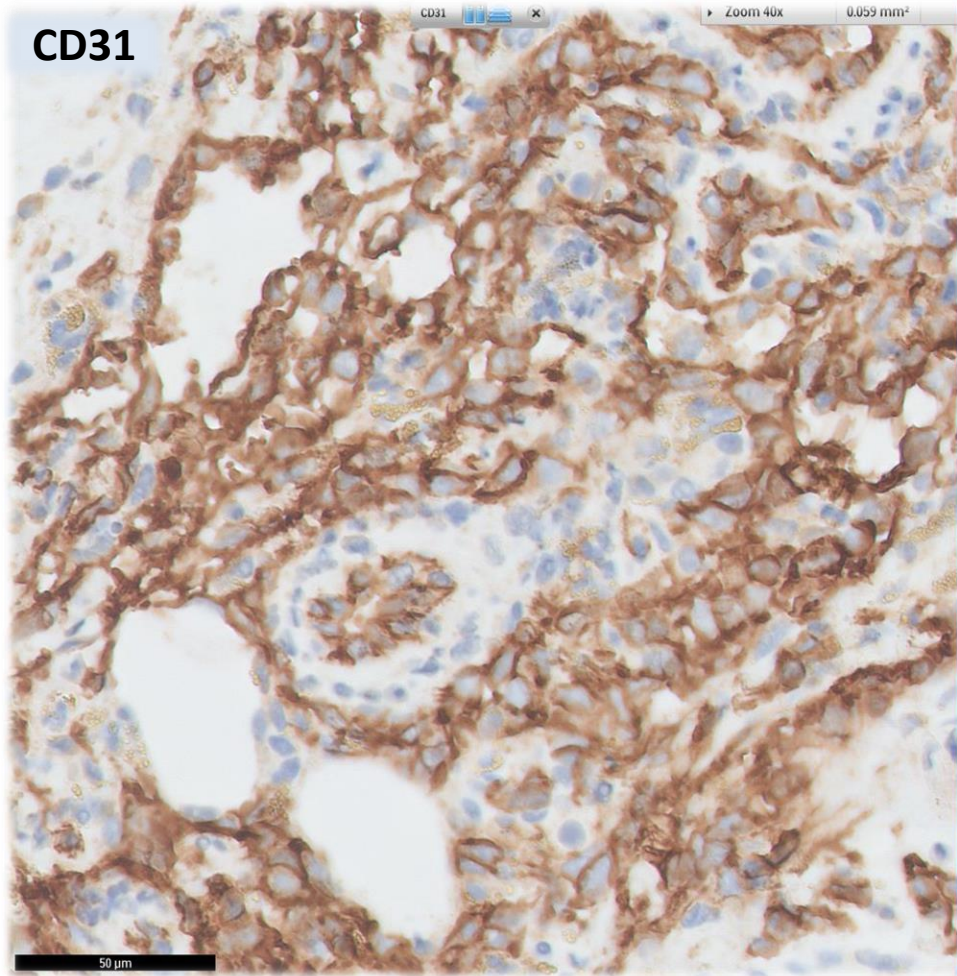


HE-CUT Zoom 20x 0.236 mm<sup>2</sup>

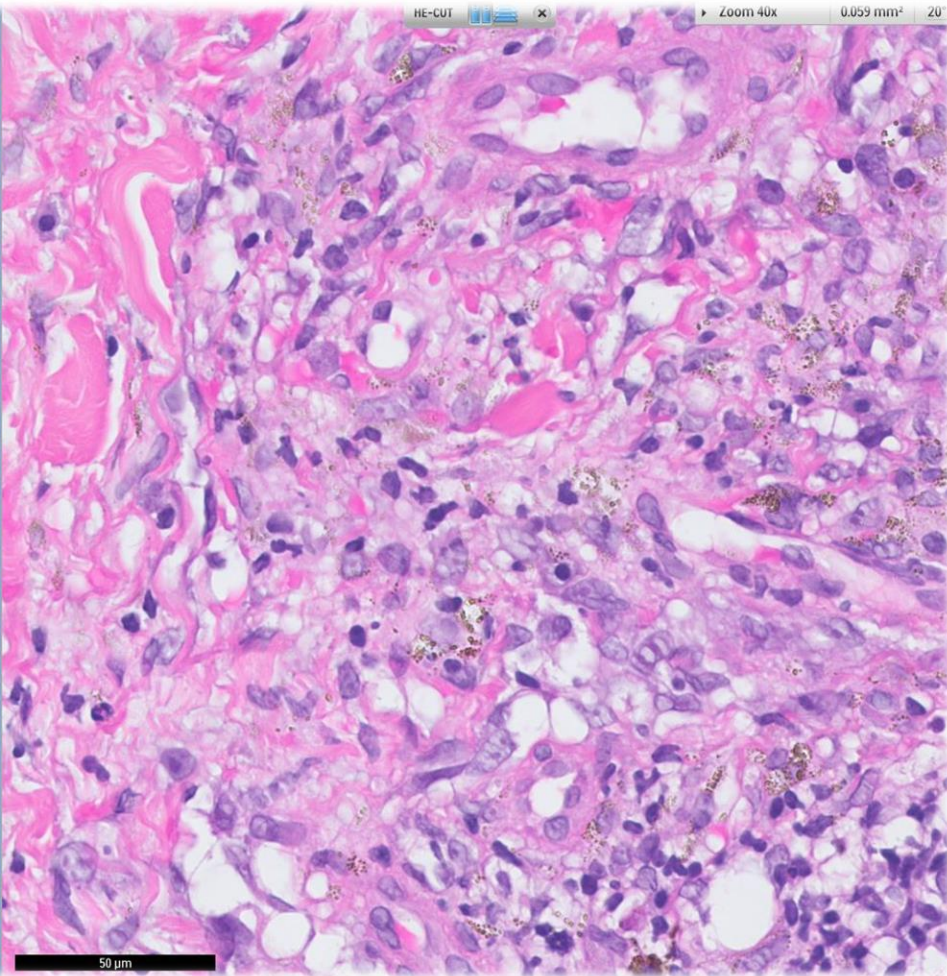


CD31

CD31 Zoom 40x 0.059 mm<sup>2</sup>

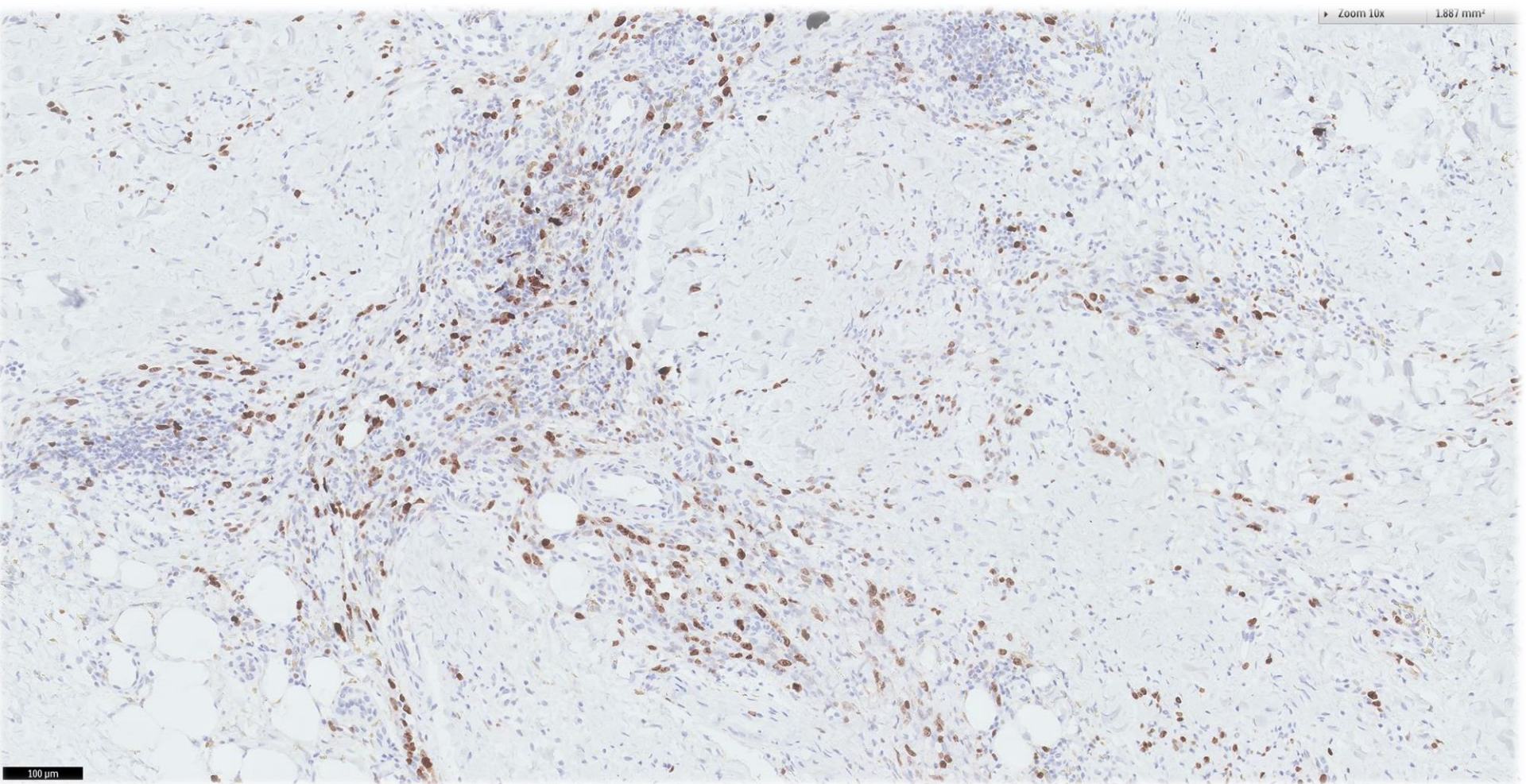


HE-CUT Zoom 40x 0.059 mm<sup>2</sup>



# Ki67

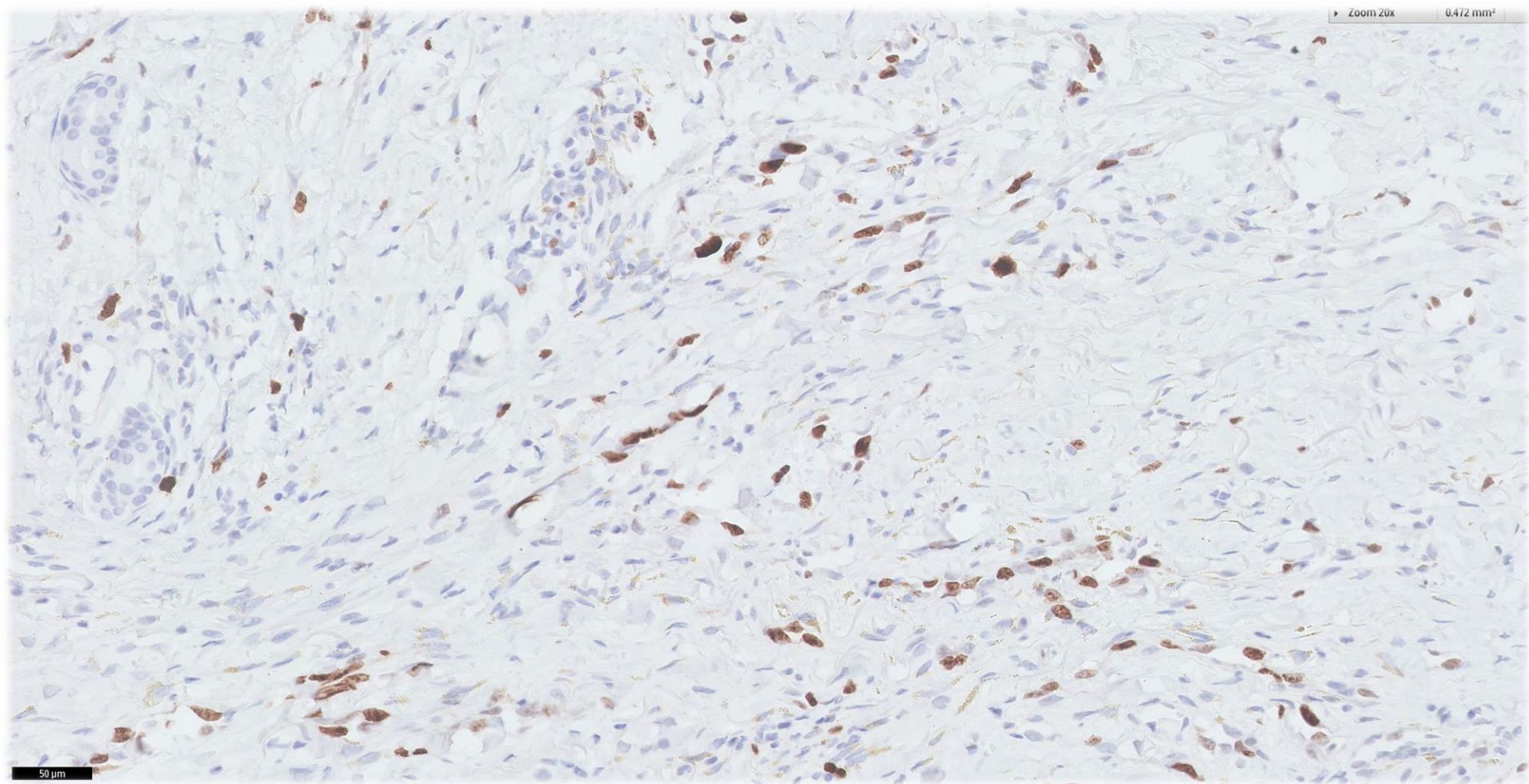
Zoom 10x 1.887 mm<sup>2</sup>



100  $\mu$ m

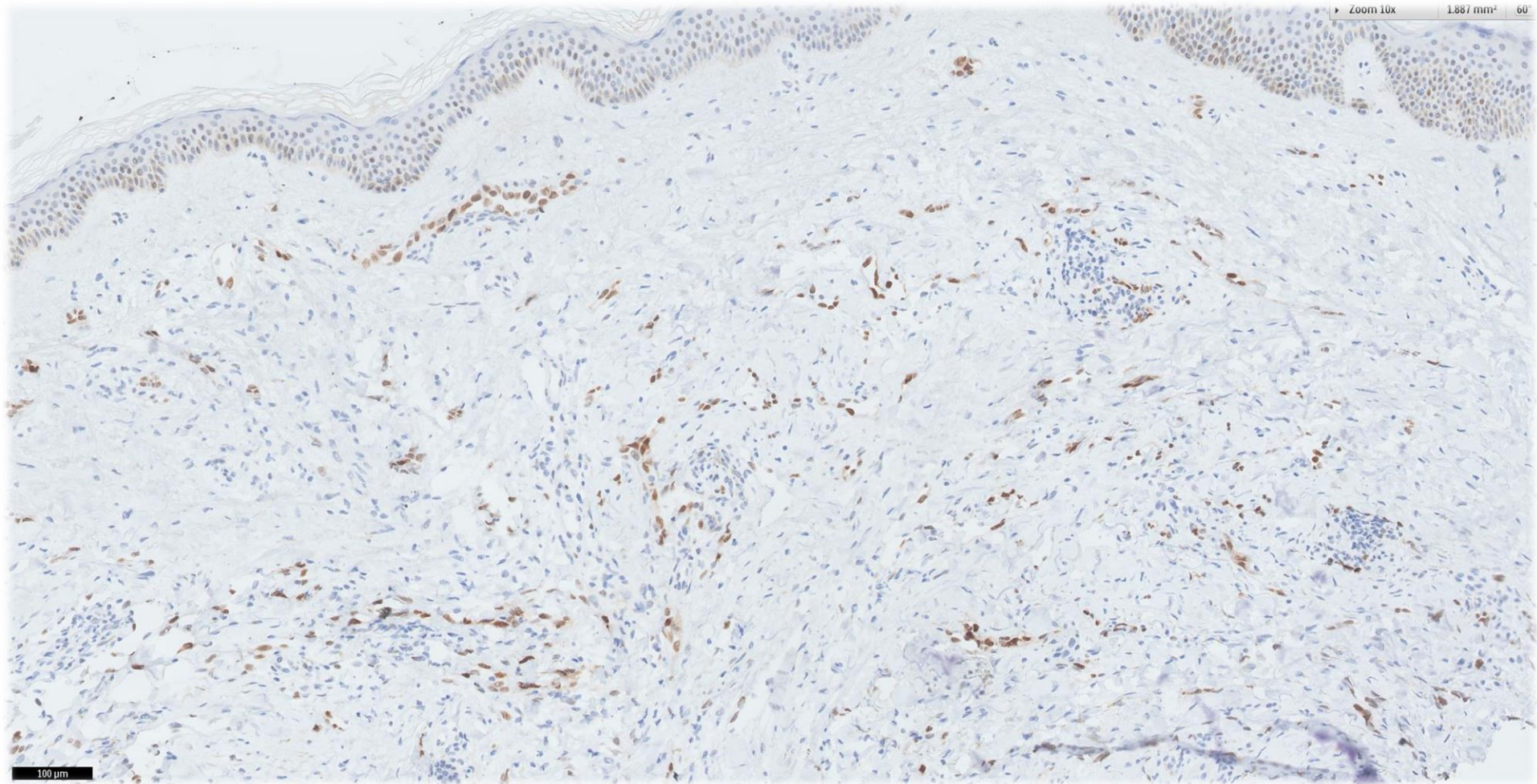
# Ki67

Zoom 20x 0.472 mm<sup>2</sup>

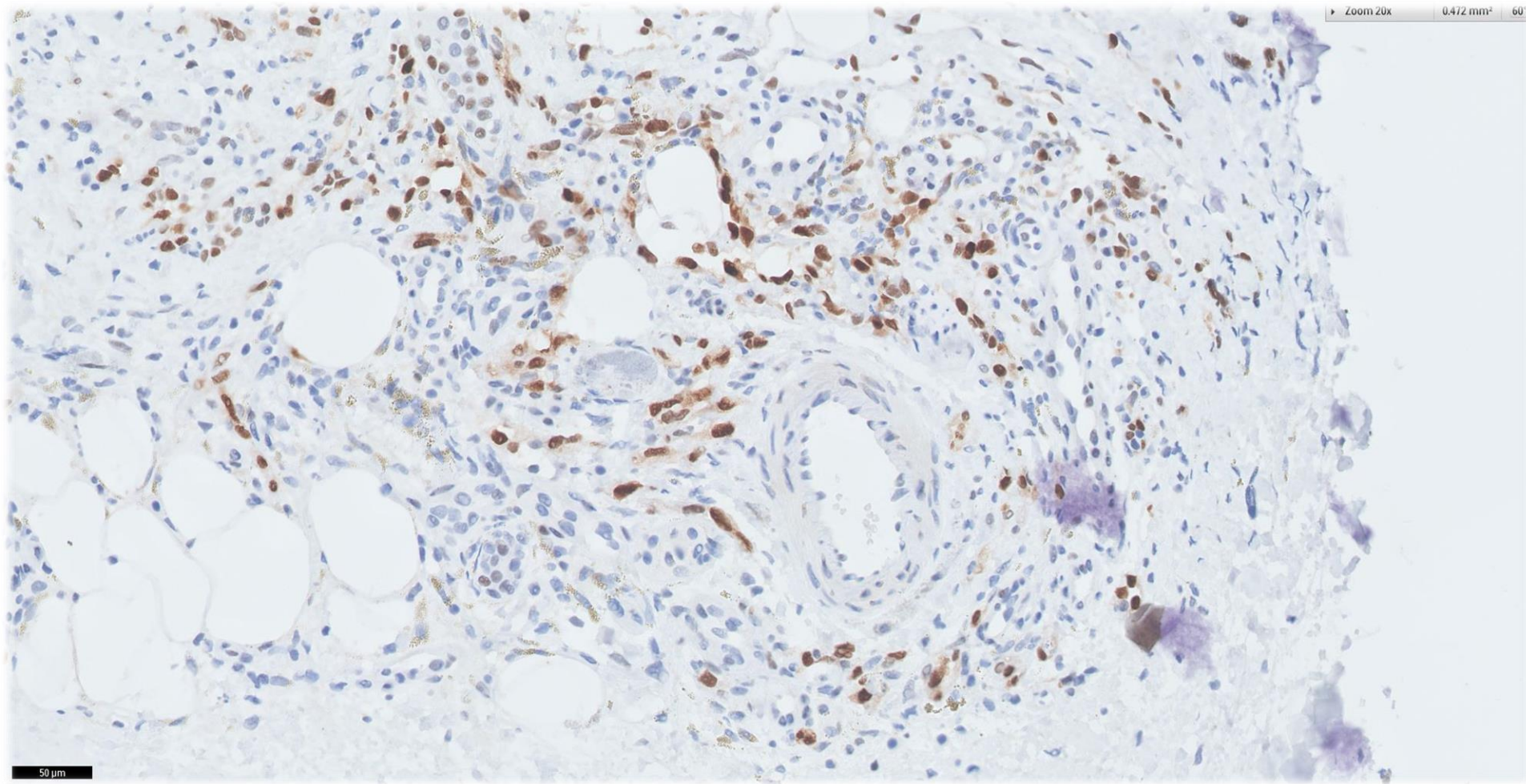


50  $\mu$ m

# C-myc



**C-myc**



***HHV8 negative***

# Diagnosis

- Abnormal vascular proliferation, consistent with angiosarcoma.
- Post-mastectomy angiosarcoma (Stewart-Treves Syndrome).



# Stewart-Treves syndrome

- Refers to the association of lymphoedema of the upper arm to angiosarcoma post-mastectomy.
- Described by Stewart and Treves in 1948.
- Angiosarcoma may develop in lymphoedematous extremities resulting from other conditions; not specific to post-mastectomies.



# Stewart-Treves syndrome

- Pathogenesis of angiosarcoma in the setting of chronic lymphoedema is uncertain.
- No obvious link to irradiation, since it was not administered in some cases while in others the lesion develops outside the irradiated field.
- May be related to local immune dysregulation  
~ *'immunocompromised district'*

*Clin Dermatol. 2014 Sep-Oct;32(5):616-20.*

*Clin Dermatol. 2014 Sep-Oct;32(5):569-76.*

# Stewart-Treves syndrome

- Occurs in 0.07% to 0.45% of lymphoedematous extremities.
- Incidence has decreased owing to breast conservation and sentinel lymph node sampling.
- Average interval from breast carcinoma diagnosis and treatment is about 10 years, ranging from one to 49 years.
- Lesions can be found in the upper medial arm, forearm, elbow.
- Early lesions indistinguishable from Kaposi's sarcoma (*HHV8 positive*).
- Metastases can occur to various organs including lung and kidney, usually within 2 years of diagnosis.
- Amputation offers better chance of cure than local excision, radiation or chemotherapy alone.

# C-myc in vasoformative lesions of the breast

	Primary angiosarcoma	Atypical vascular lesion	Post-radiation angiosarcoma
C-myc overexpression (IHC) or amplification (FISH)	No	No	Yes

C-myc in Stewart-Treves syndrome:

Scant data.

Recent case report of angiosarcoma occurring in congenital lymphoedema disclosed no amplification of c-myc {*Case Reports in Pathology Volume 2013, Article ID 931973*}

