



Hospital
Braga

25th European Congress of Pathology – Lisbon, Portugal

Plenary Residents Seminar

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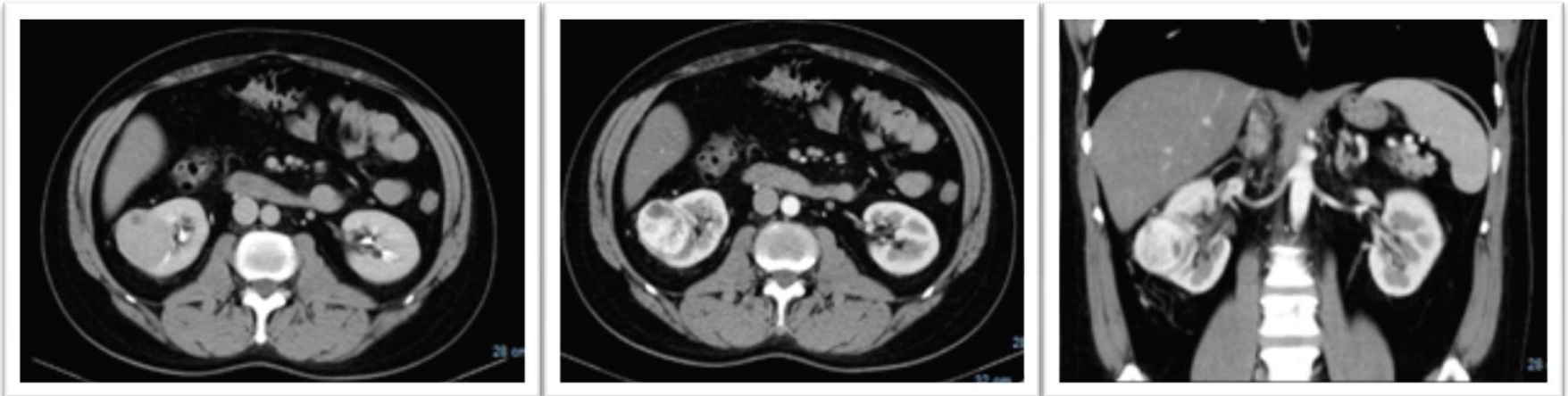
Institution: Department of Pathology, Hospital de Braga, Portugal

✓ Clinical History:

- 46 years old Brazilian male with a right renal mass.
- Past medical history:
 - High blood pressure.
 - Perianal abscesses.
- No relevant family history.

✓ Abdominal CT-scan:

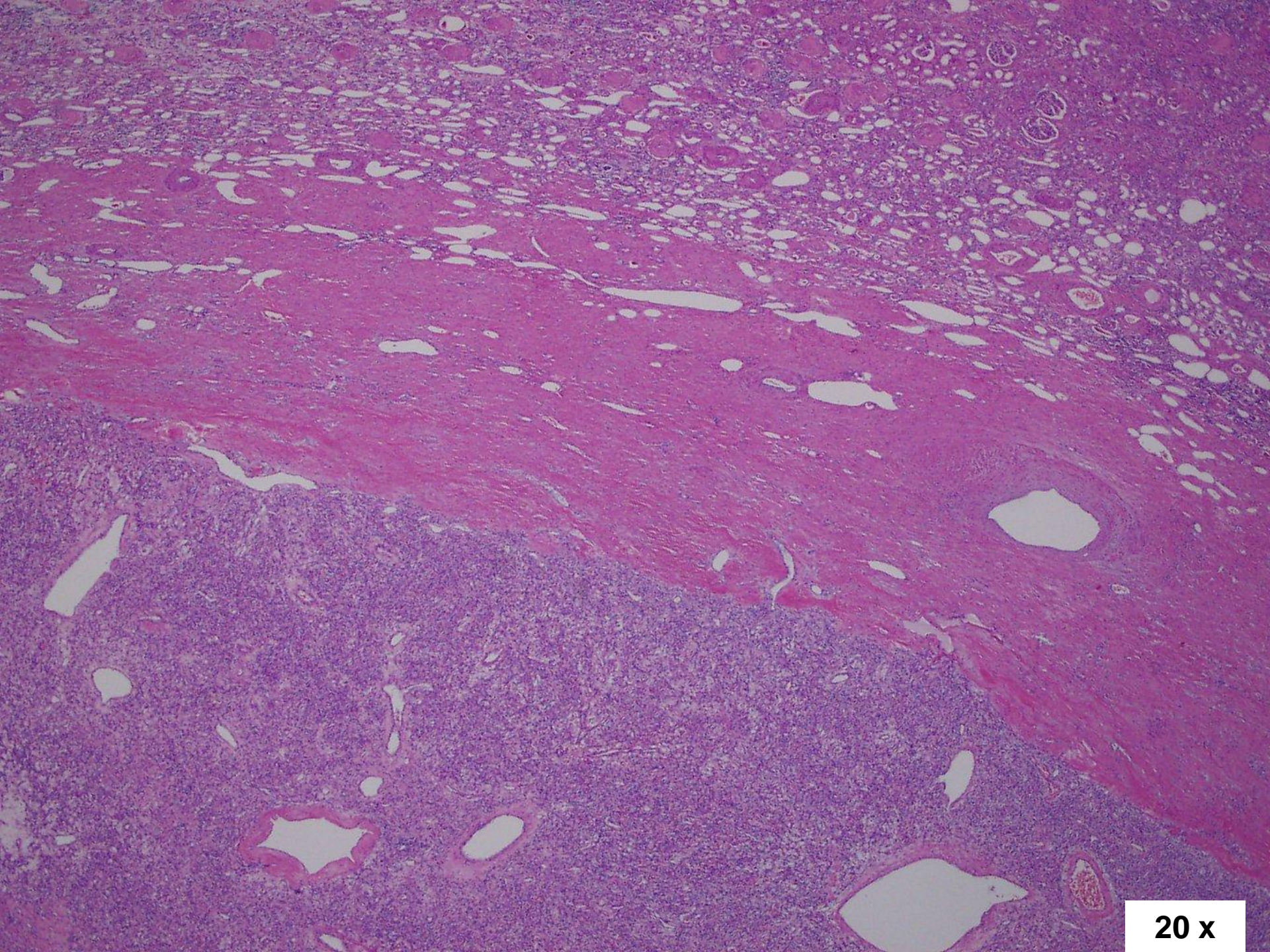
“ (...) a 4,5cm well defined, solid mass located in the middle third of the right kidney (...) with heterogeneous enhancement(...)“



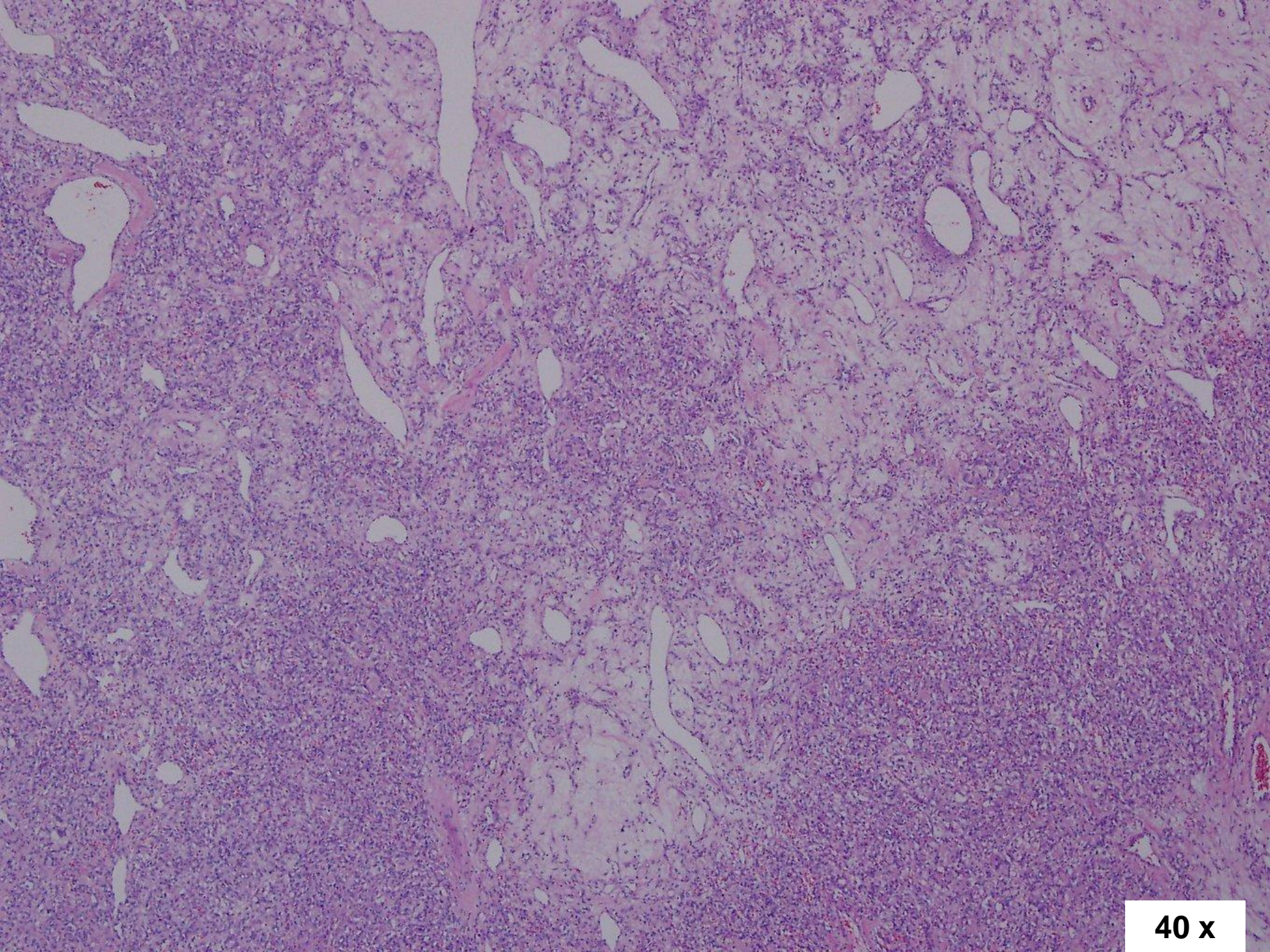
✓ **Surgery:** radical right nephrectomy.

✓ Gross findings:

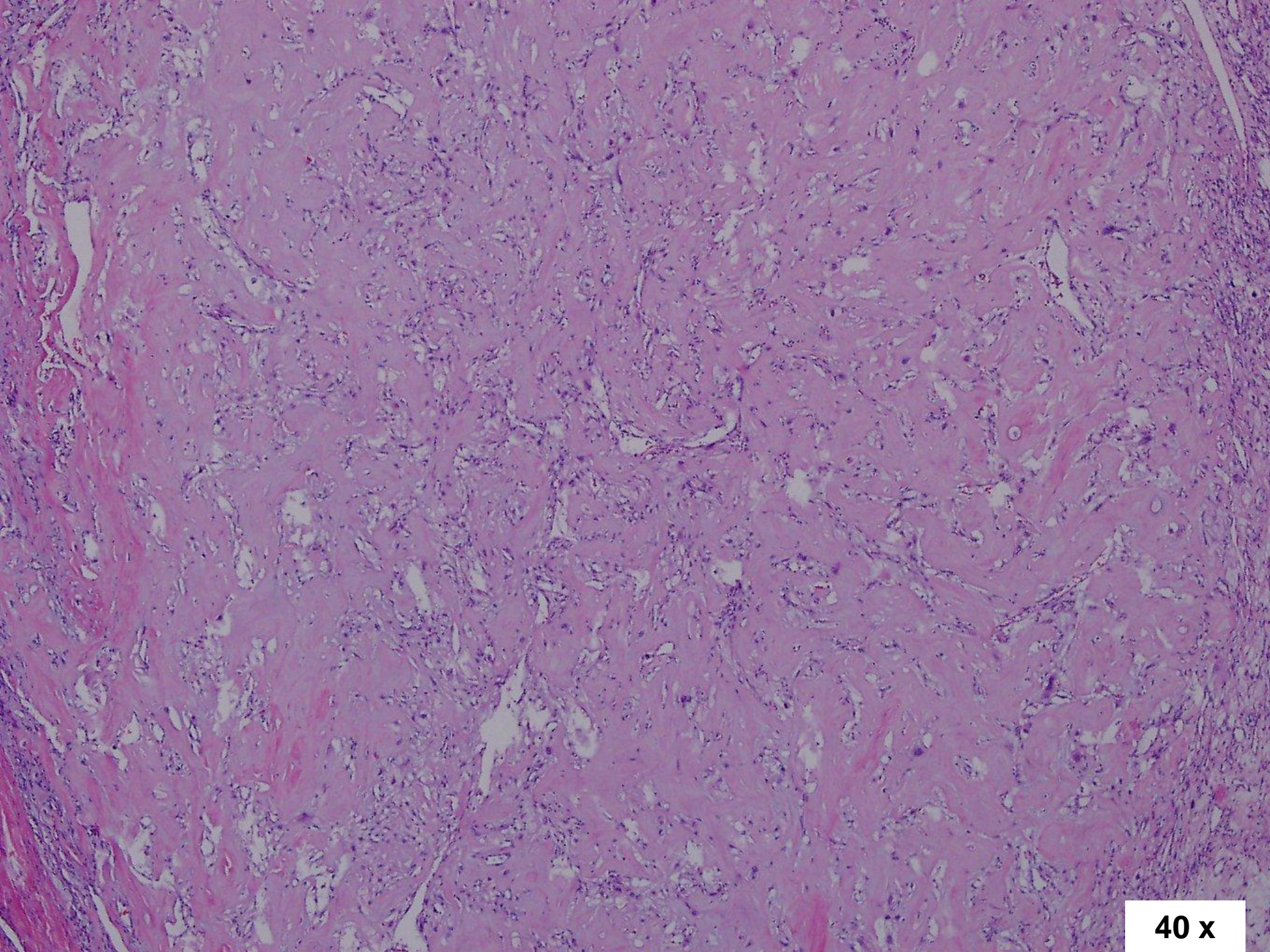
- 10x6x4 cm right kidney with a 4x3,5x3,5 cm well circumscribed and encapsulated round mass in the middle third.
- The cut surface was heterogeneous and white-tan with a solid consistency.
- No gross invasion of the renal sinus, renal pelvis or ureter.



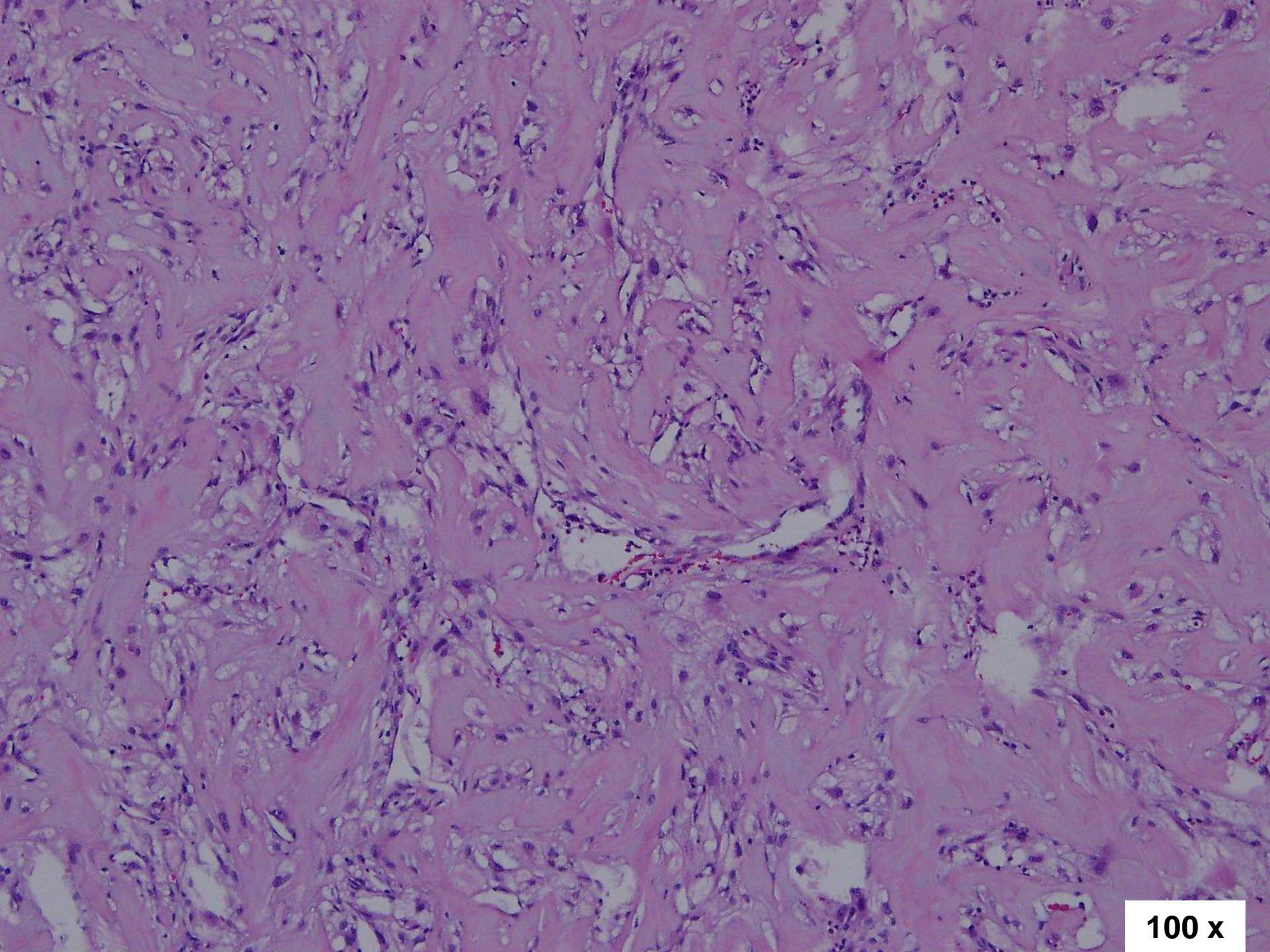
20 x



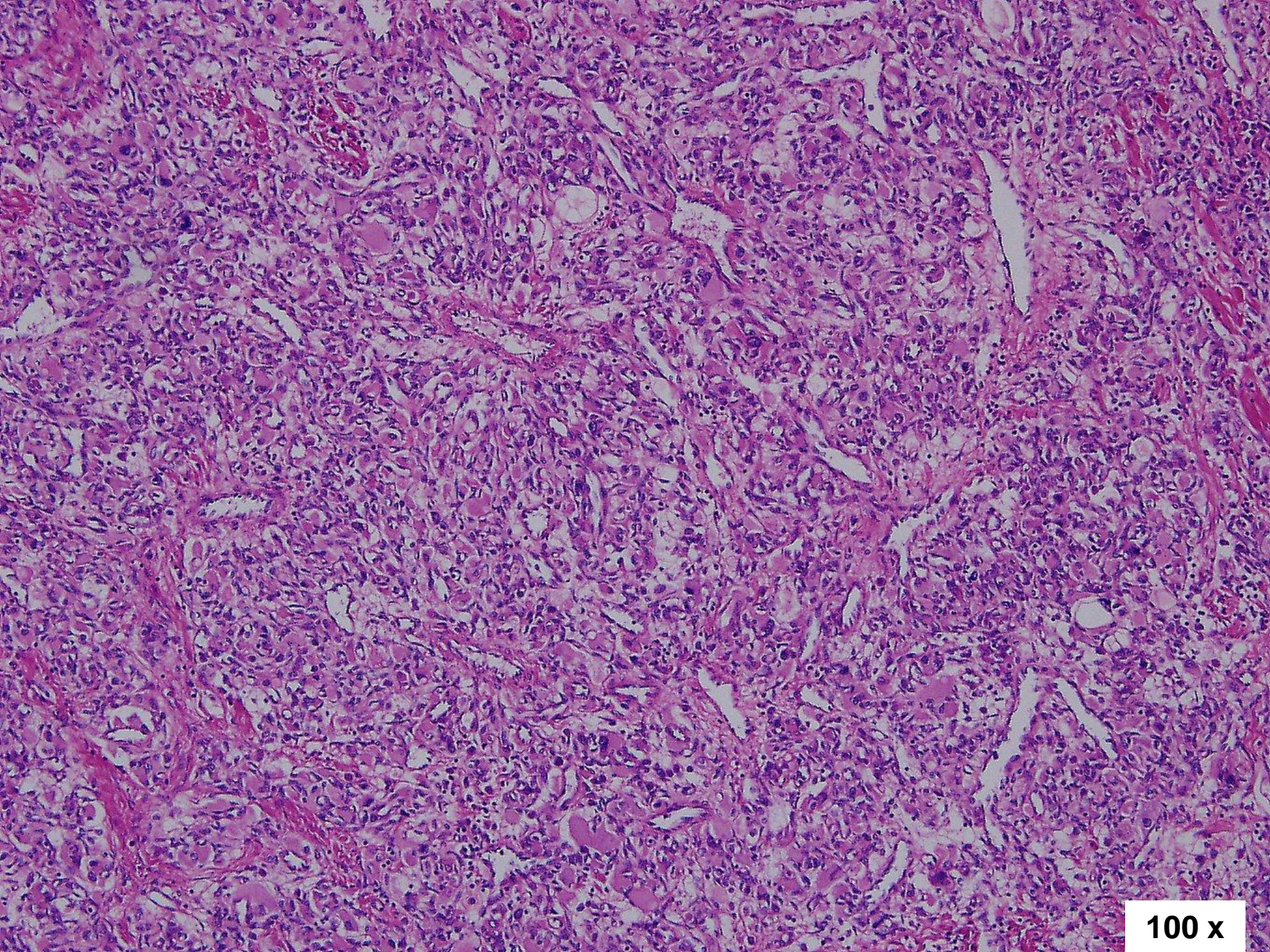
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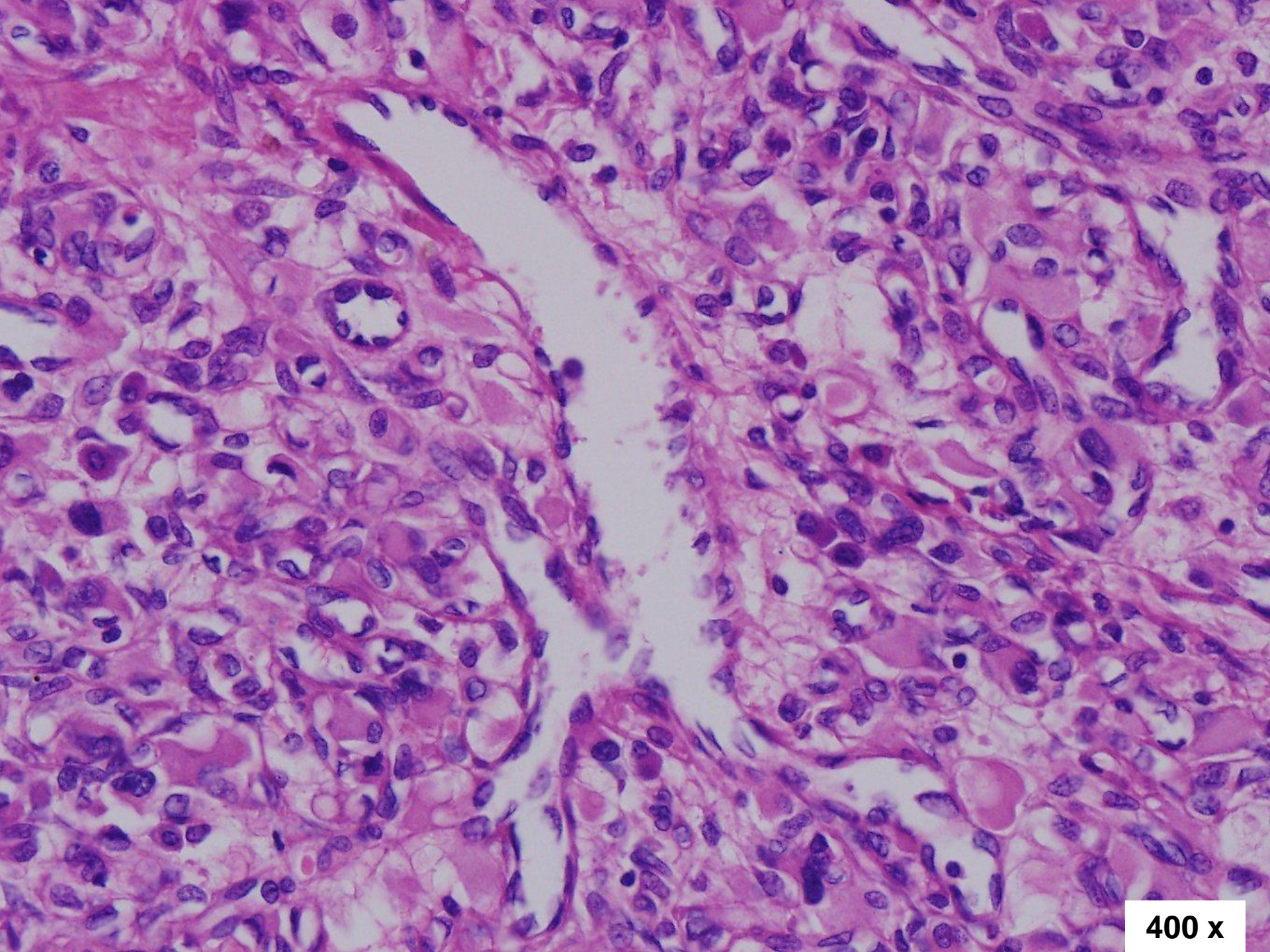
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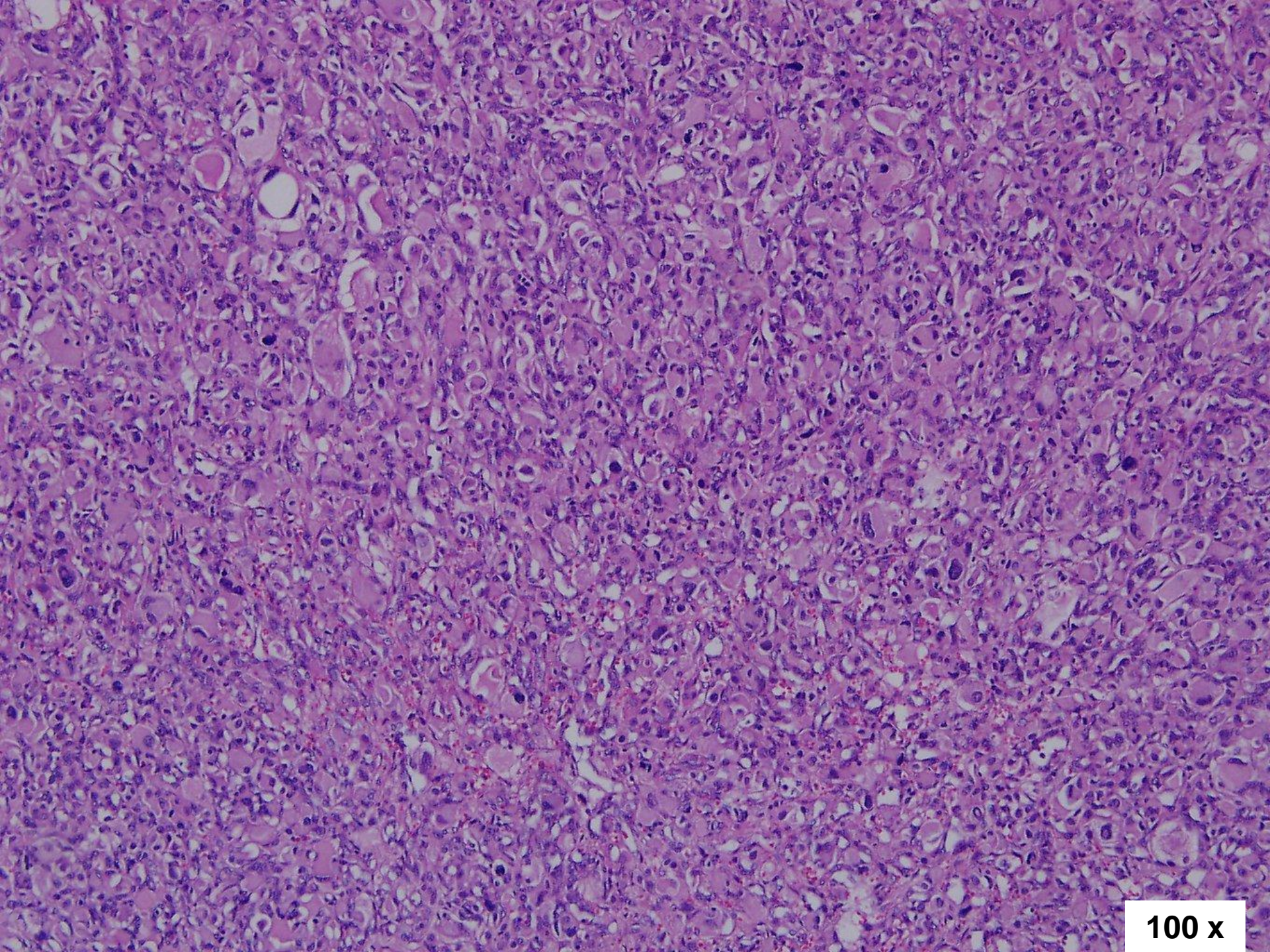
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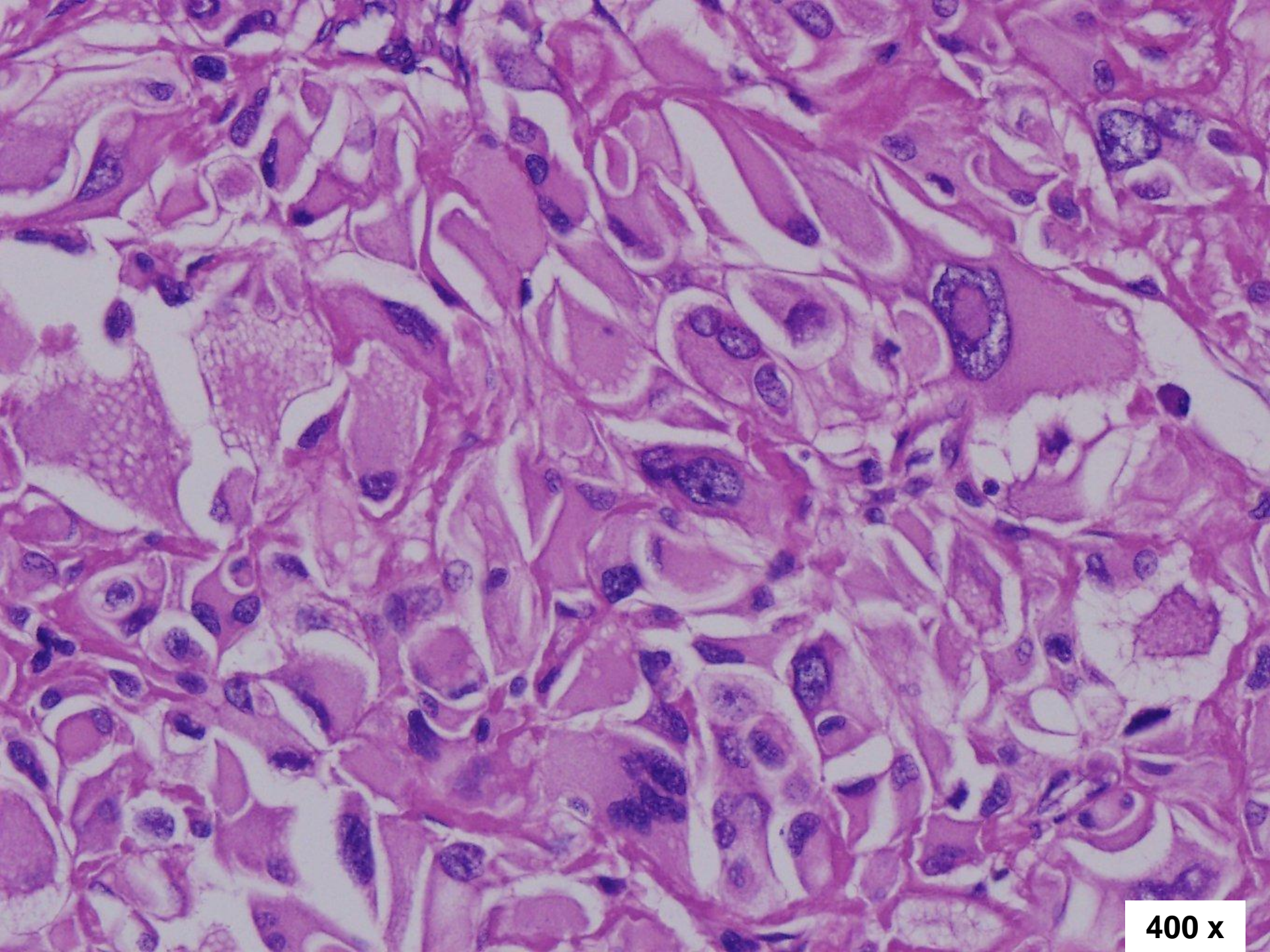
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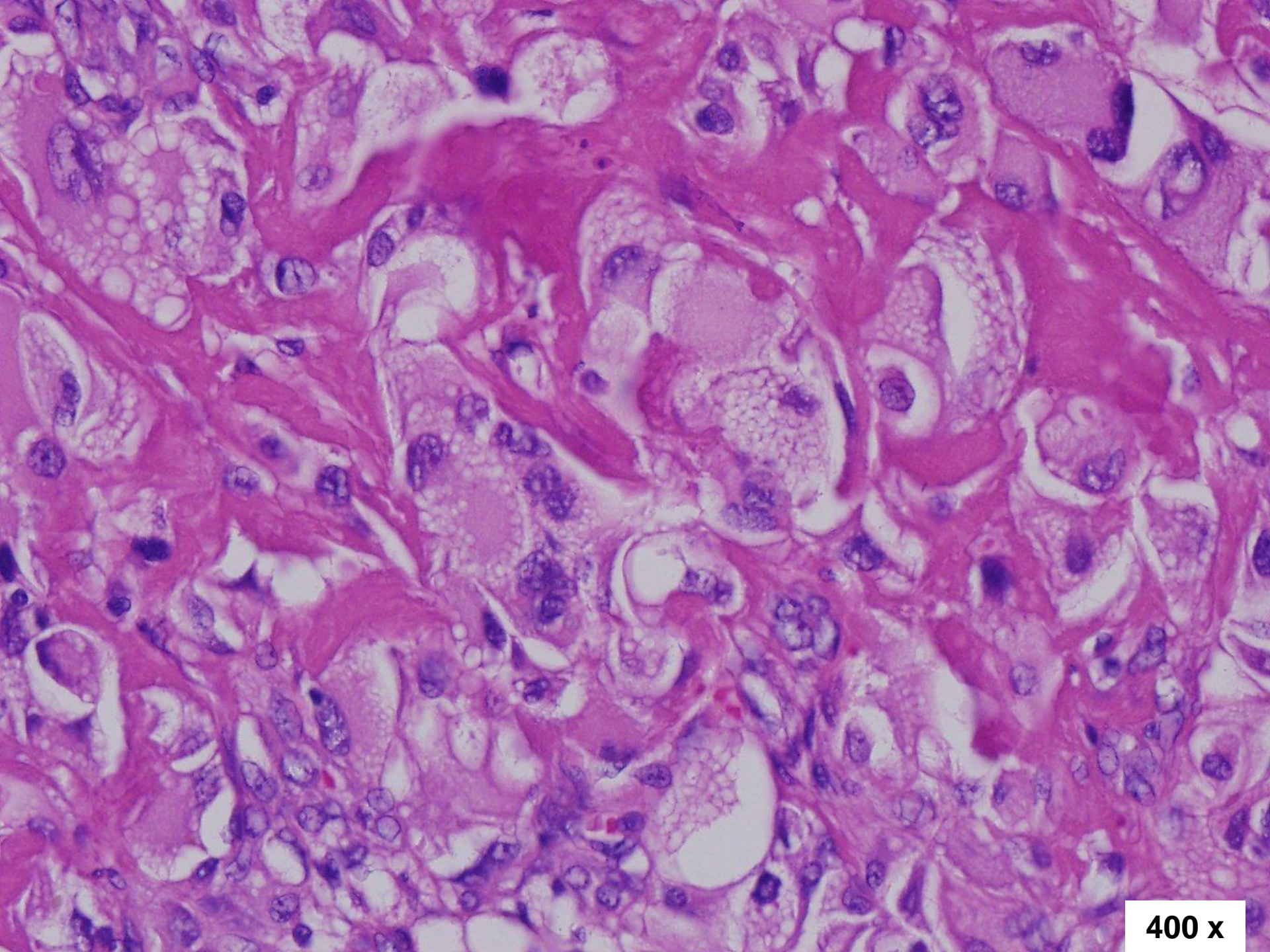
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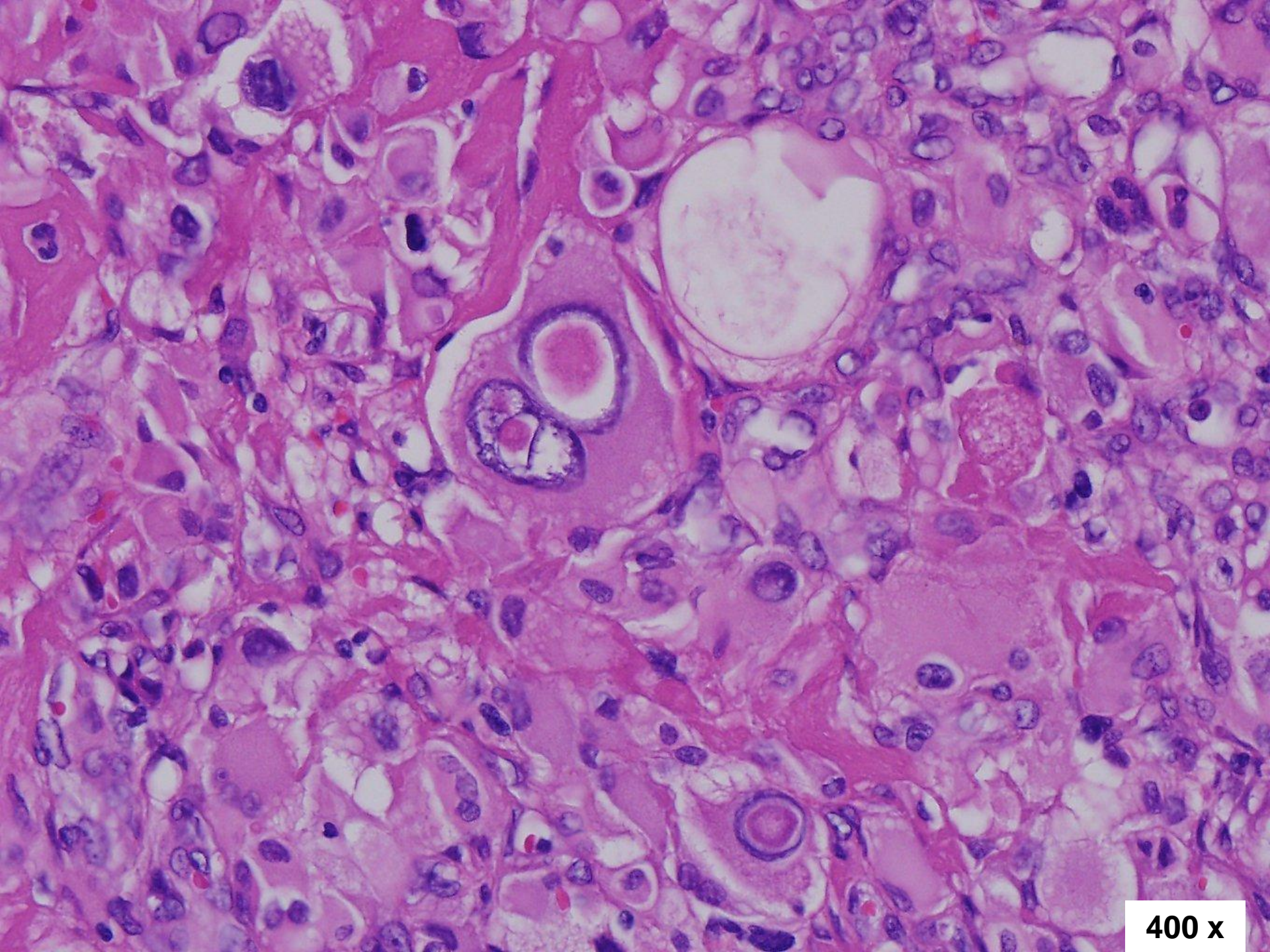
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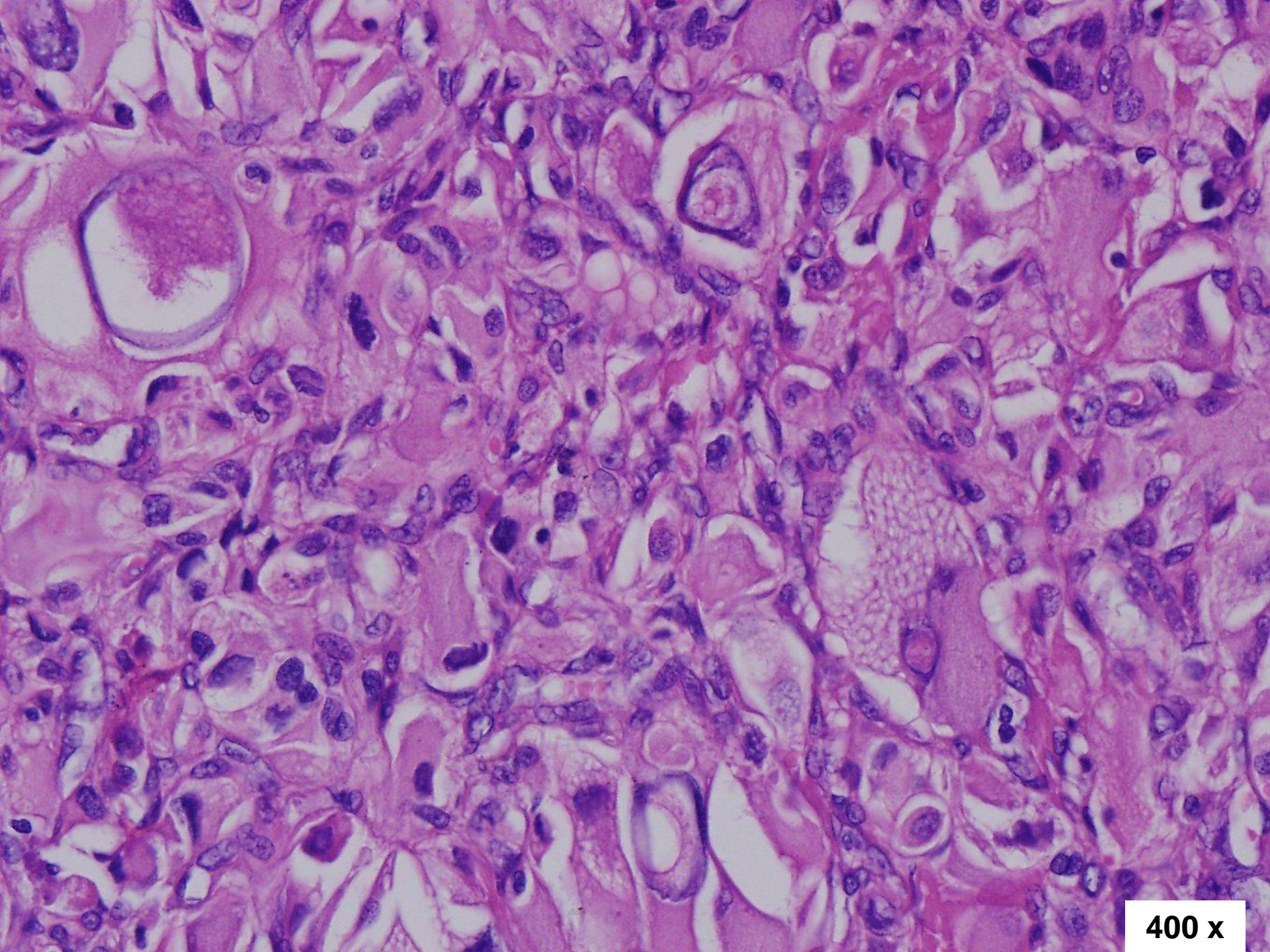
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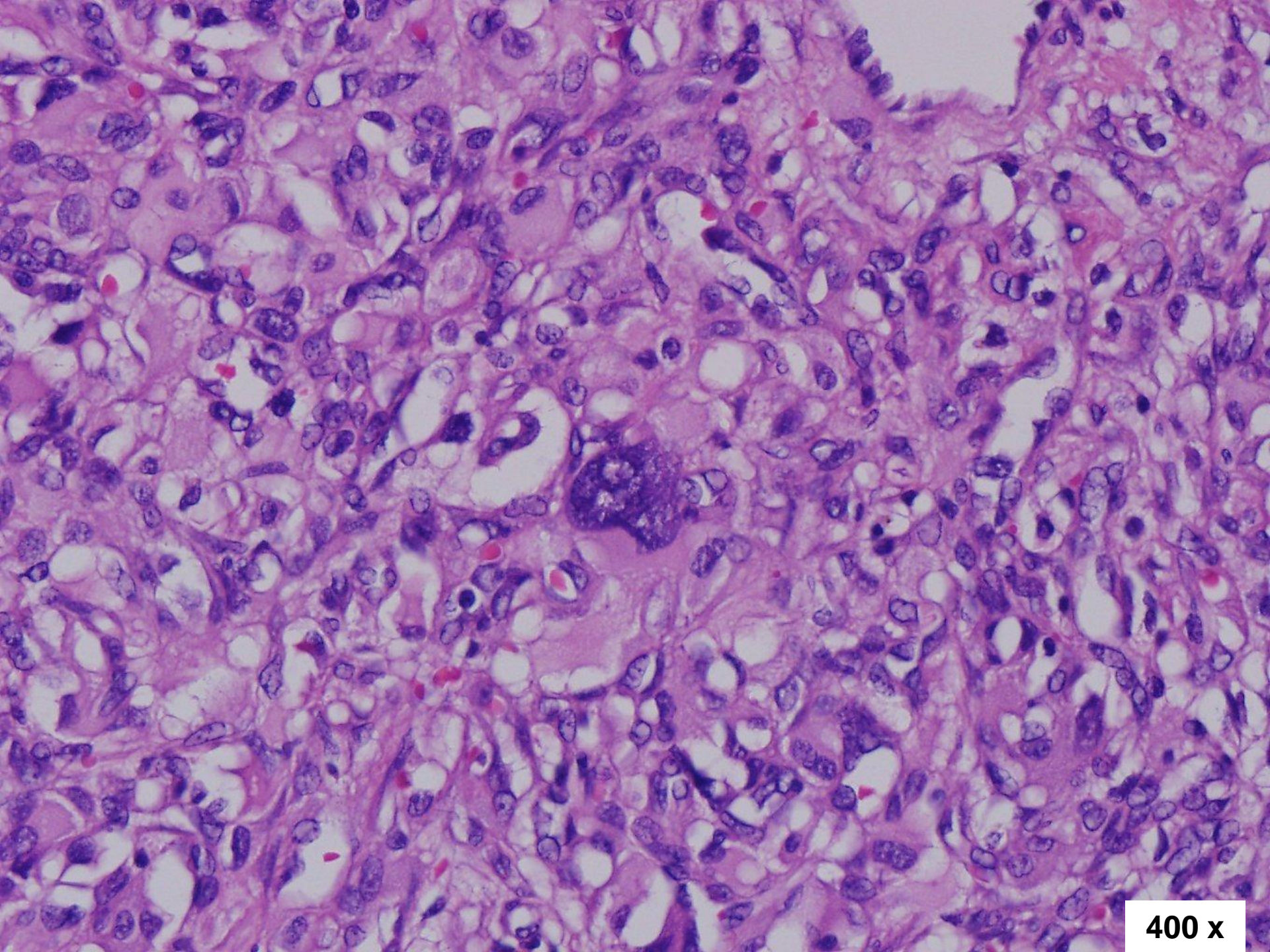
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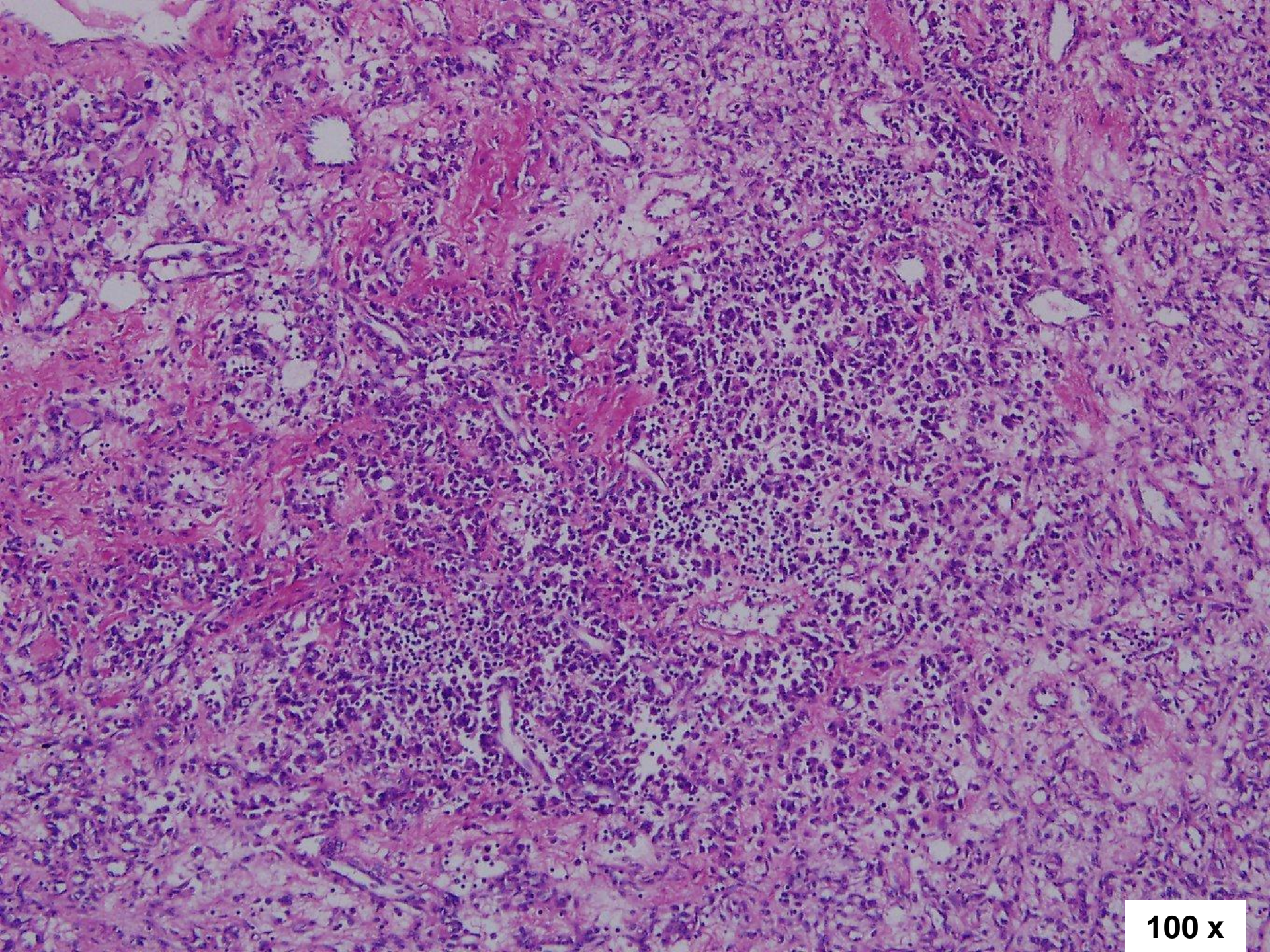
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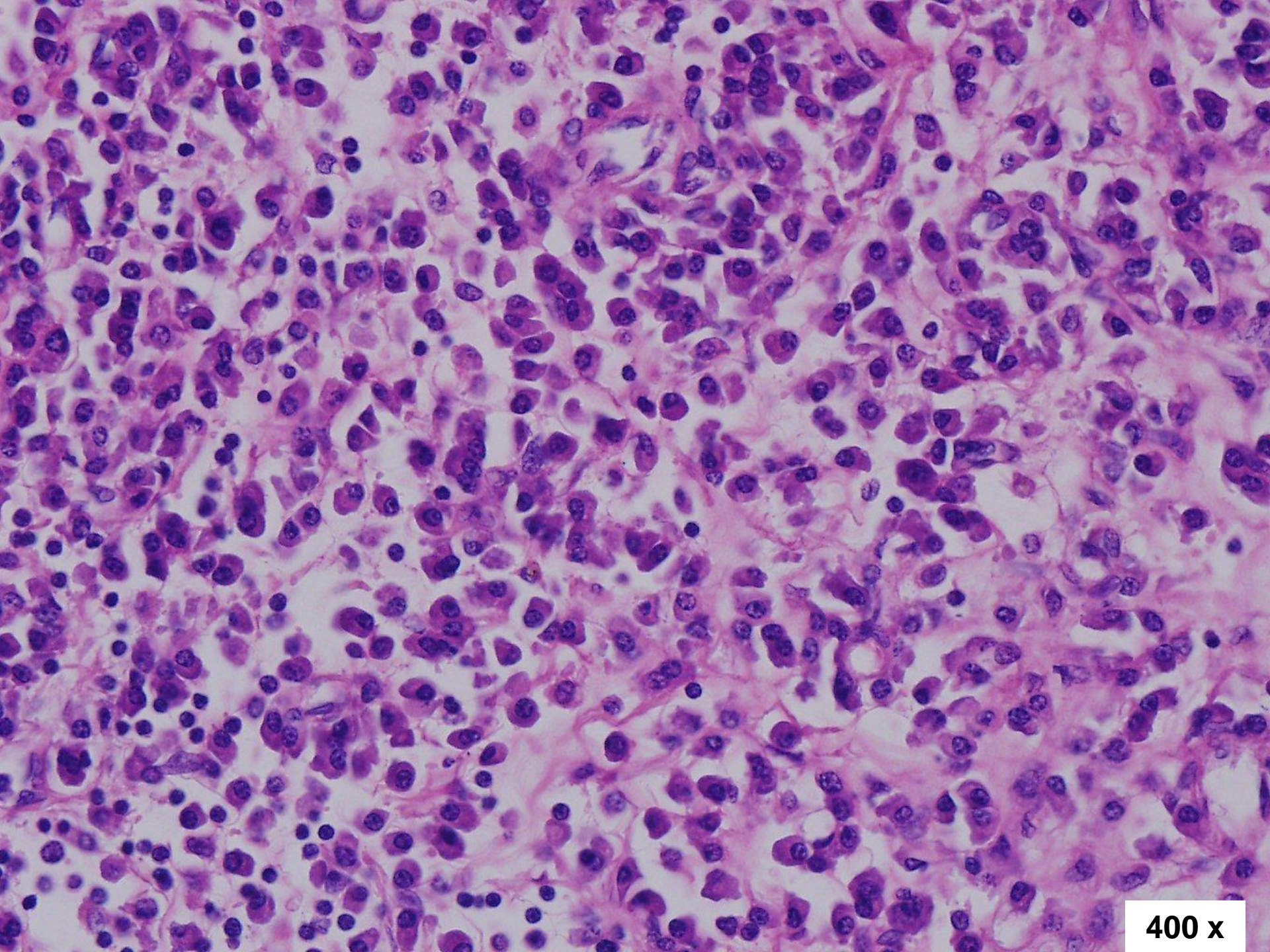
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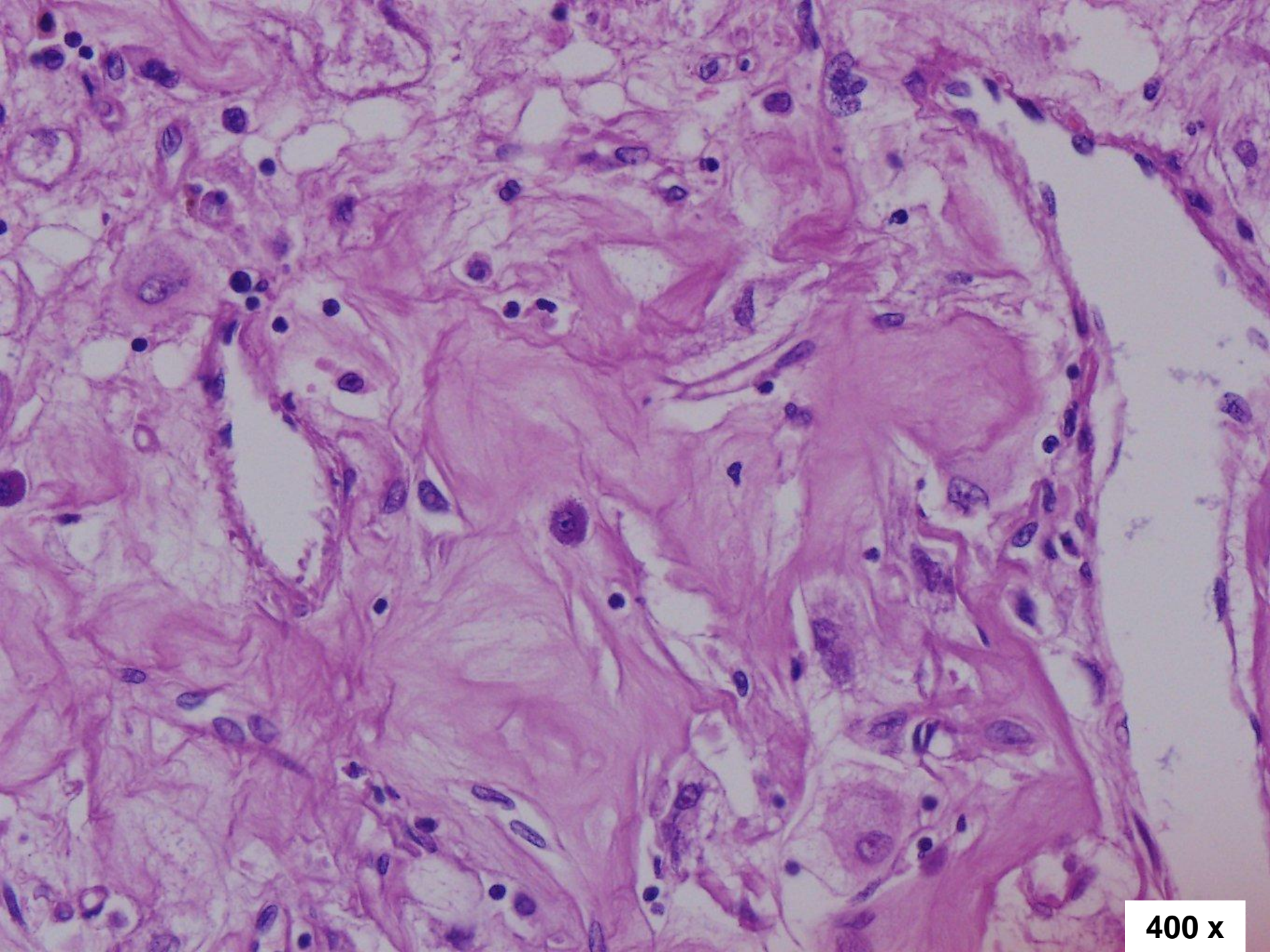
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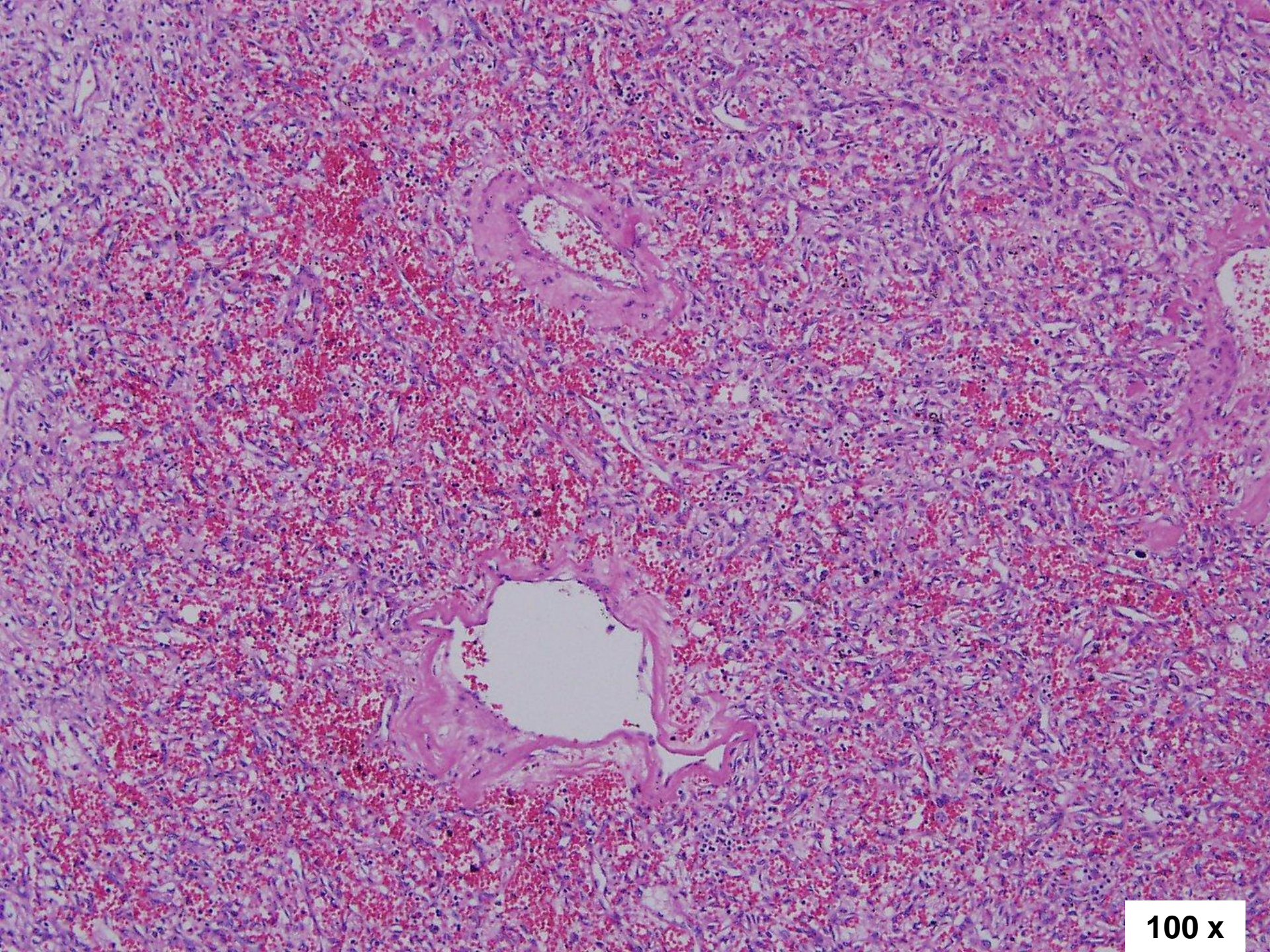
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✓ Microscopic findings (I):

- Well-demarcated encapsulated tumor;
- Alternation of paucicellular and cellular areas;

• Paucicellular areas:

- Hyalinized and edematous stroma with reticular vascular channels.

• Cellular areas:

- I. Rich vascular network with thin walled vessels lined by flattened to plump endothelial cells, sometimes with a hemangiopericytomatous appearance.

✓ Microscopic findings(II):

- **Cellular areas:**

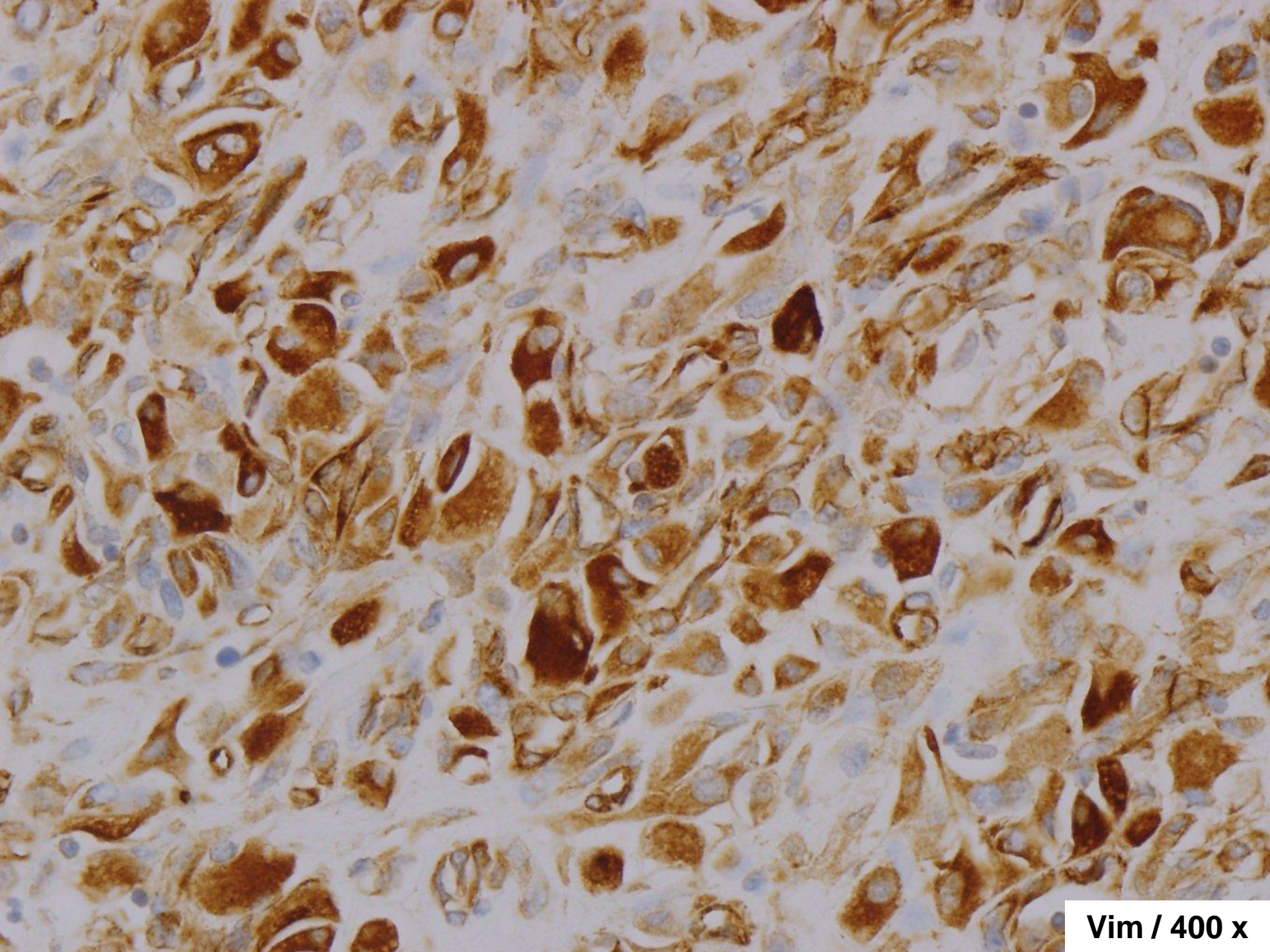
- II. Stromal cells:

- Polygonal cells with large and eosinophilic cytoplasm, sometimes with multiple and fine microvacuoles (lipid – laden cytoplasm);
 - Central or peripherally located round nuclei with occasional hyaline globules.

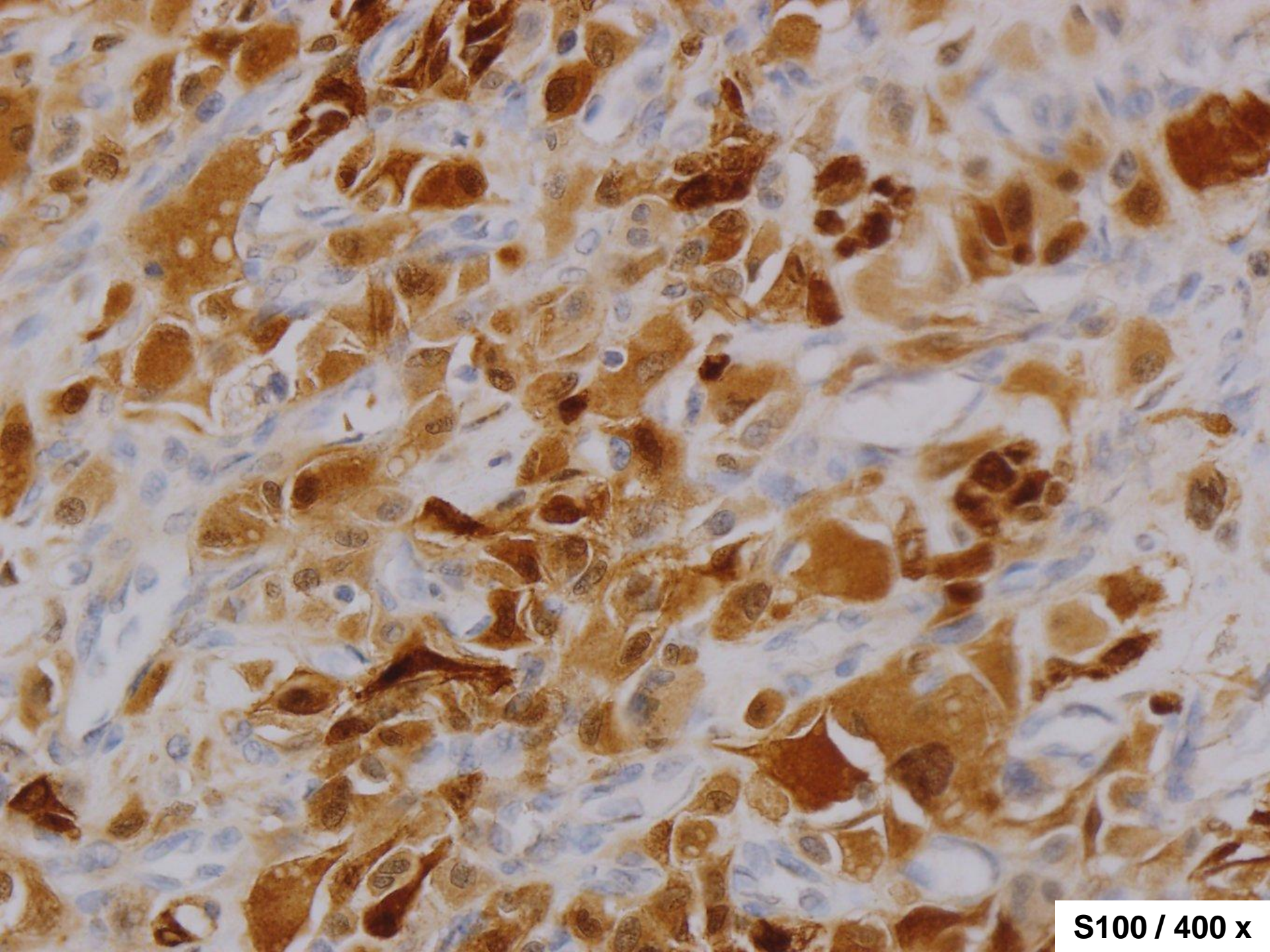
- Occasional moderate cellular atypia and exceedingly rare mitotic figures.
- Focal stromal hemorrhage.
- Inflammatory infiltrate of mast cells, lymphocytes and plasma cells.

✓ **Differential diagnoses:**

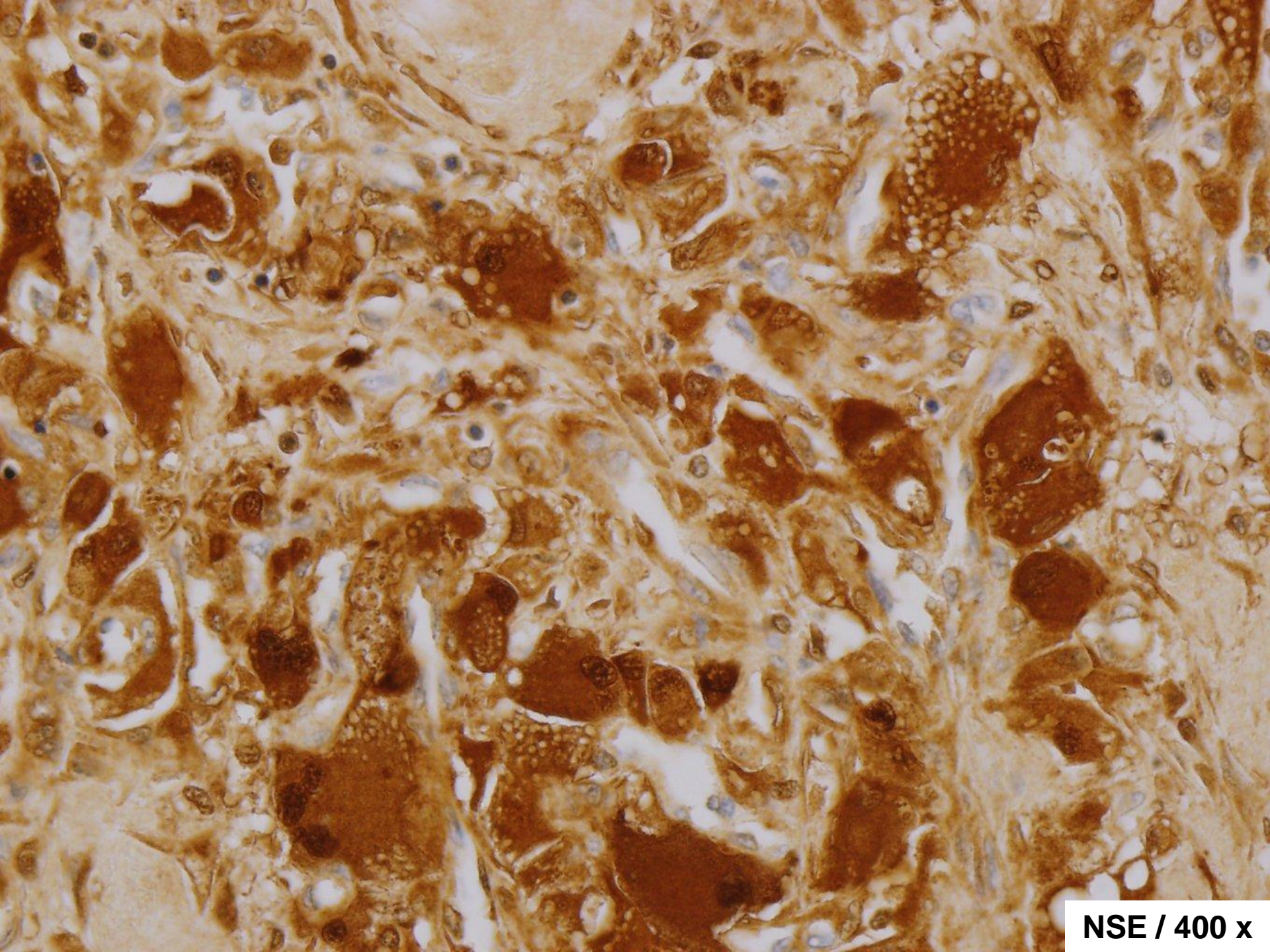
- I. Hemangioblastoma
- II. Epithelioid Angiomyolipoma
- III. Hemangiopericytoma
- IV. Clear cell renal cell carcinoma
- V. Extraintestinal GIST
- VI. Adrenal cortical carcinoma (metastasis)
- VII. Paraganglioma



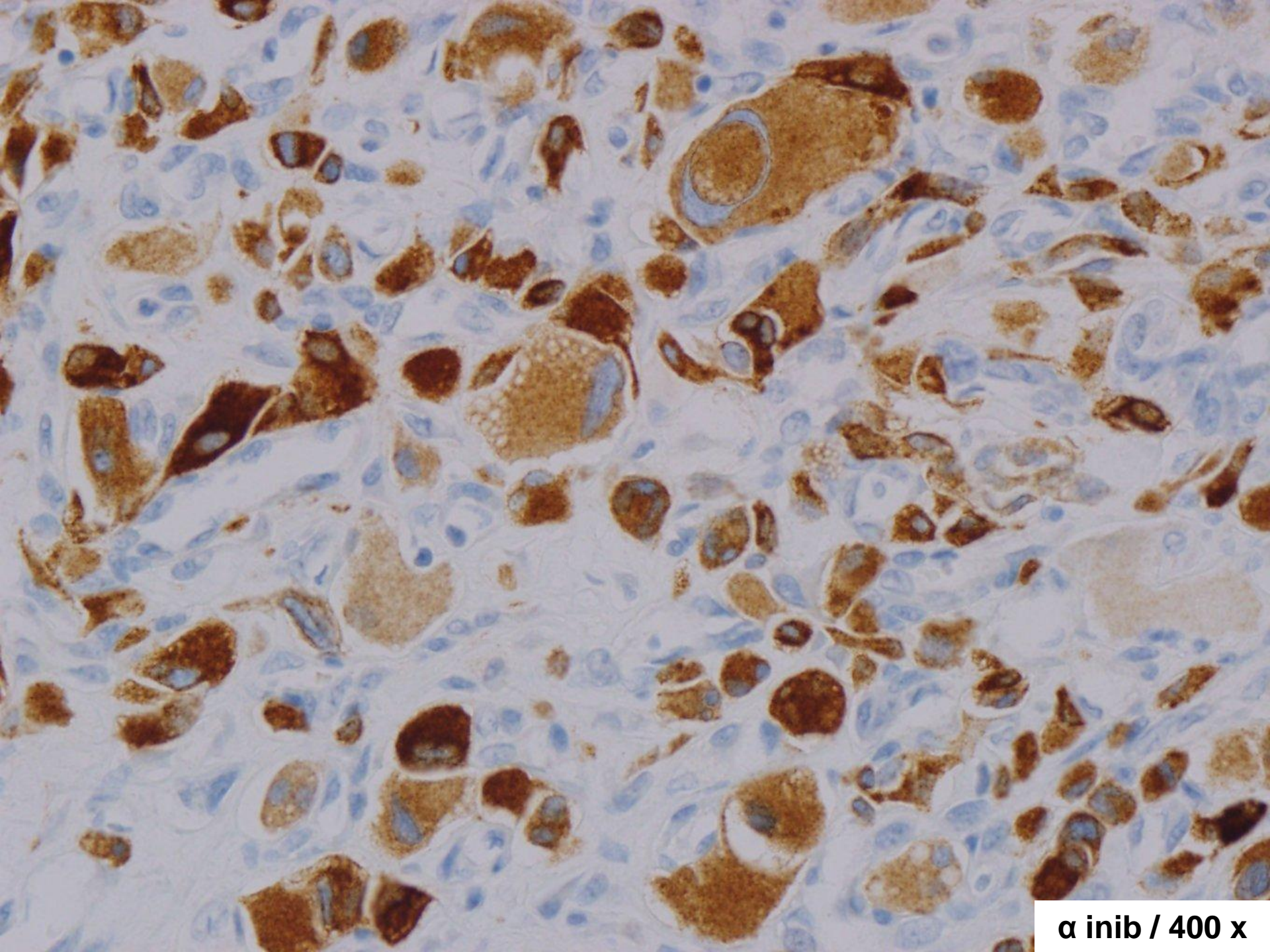
Vim / 400 x



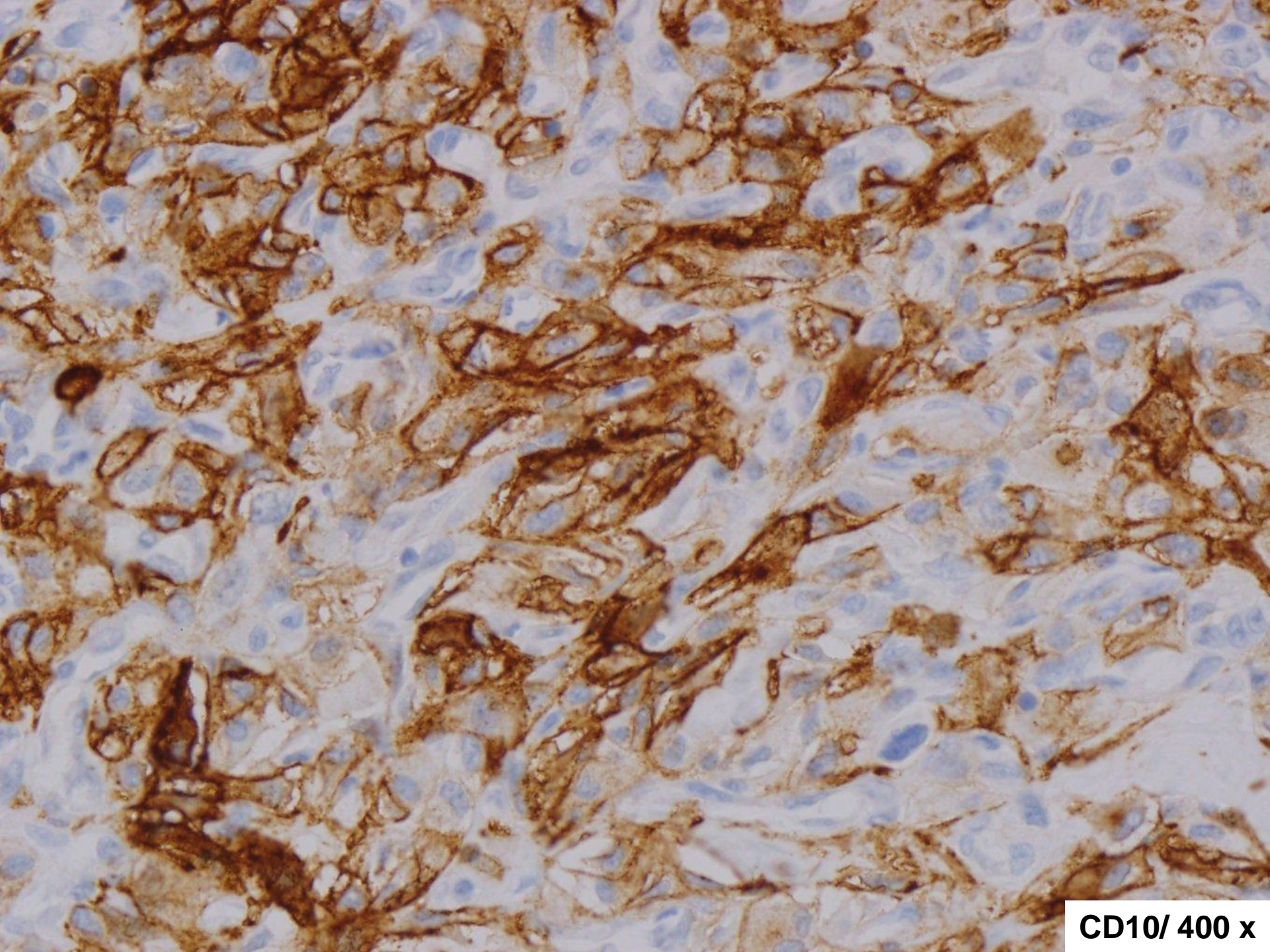
S100 / 400 x



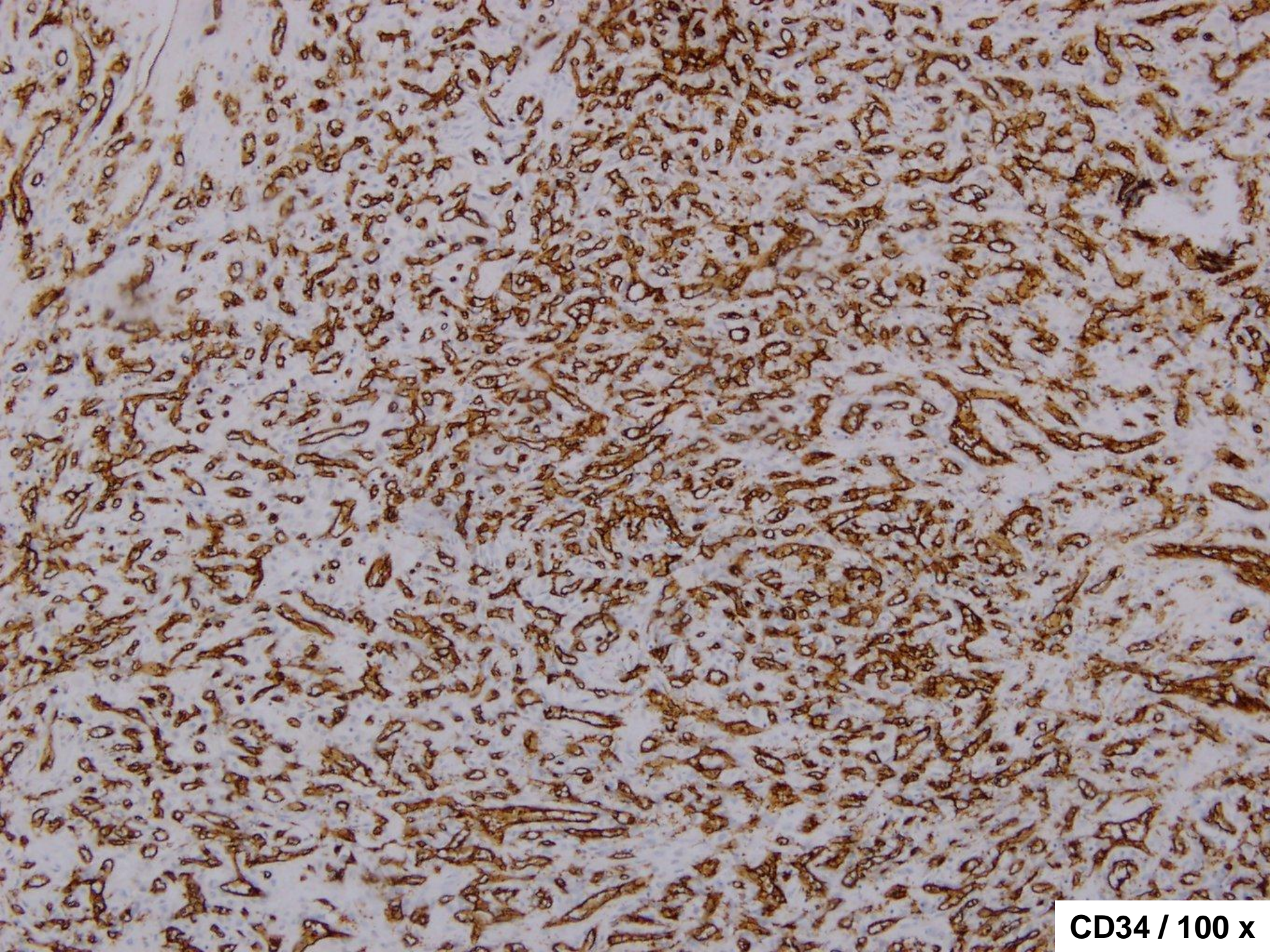
NSE / 400 x



α inib / 400 x



CD10/ 400 x



CD34 / 100 x



✓ Immunohistochemistry

Ki-67: < 1%

	Positive	Negative
Stromal Cells	Vimentin S100 protein NSE α-inhibin CD10 (focal)	MNF -116 EMA Synaptophysin Chromogranin CD57 Desmin HHF35 CD117 MiTF HMB45
Vascular network	CD34	



<u>Epithelioid Angiomyolipoma</u>	HMB45, MiTF, muscle markers + α -inhibin -
<u>Hemangiopericytoma</u>	CD34 and EMA+
<u>Clear cell renal cell carcinoma</u>	Pan-cytokeratin and EMA +
<u>Extra-intestinal GIST</u>	CD117 and CD34 +
<u>Adrenal cortical carcinoma / paraganglioma</u>	Synaptophysin + / Synaptophysin, chromogranin and CD57 +

✓ Renal Hemangioblastoma

✓ Follow up:

- No adjuvant treatment.
- Genetic study for von Hippel-Lindau disease in progress.
- NED/8 months.

✓ References:

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