

DIAGNOSTIC SLIDE SESSION

2016

CASE 2016-3

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DISCLOSURES

No relevant financial relationships to disclose.

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CLINICAL HISTORY

HPI:

- 23-year-old previously healthy female
- Presented to Ophthalmology for bilateral scleritis with new symptoms of right ear chondritis
- Referred to Rheumatology for further work-up

Neurologic exam:

- Alert and oriented x 3, CN 2-12 grossly intact
- 5/5 strength, normal sensation, normal range of motion
- Reflexes intact

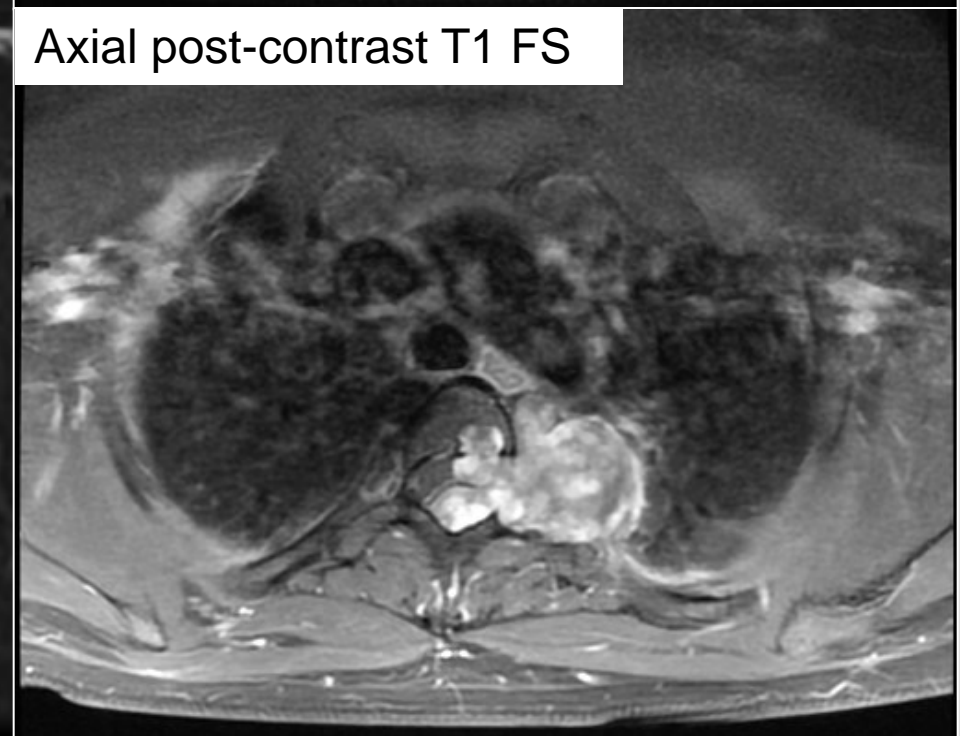
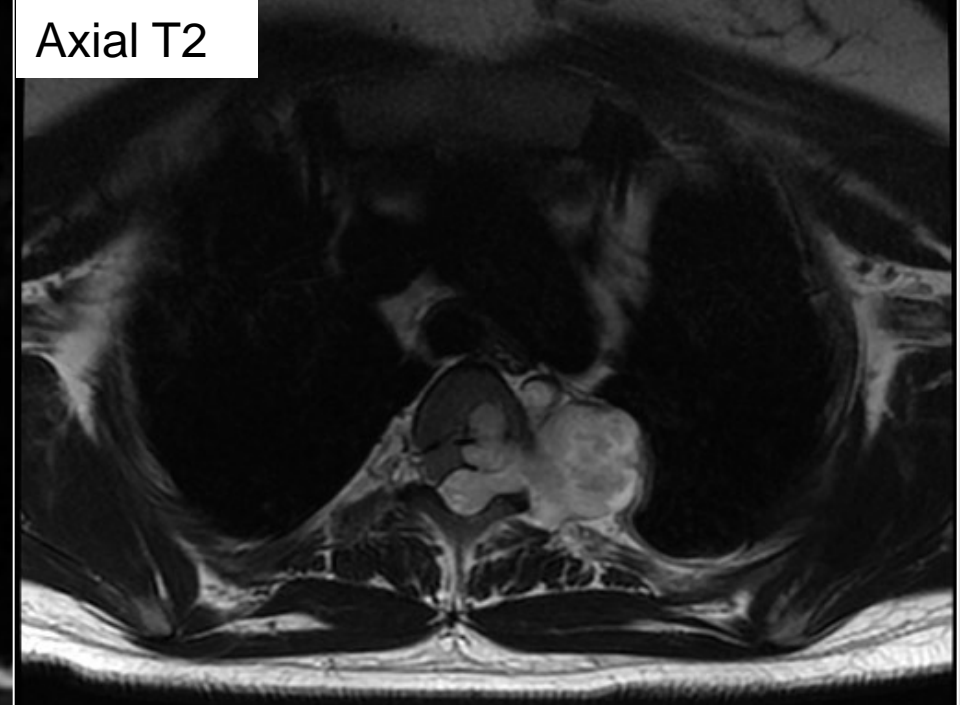
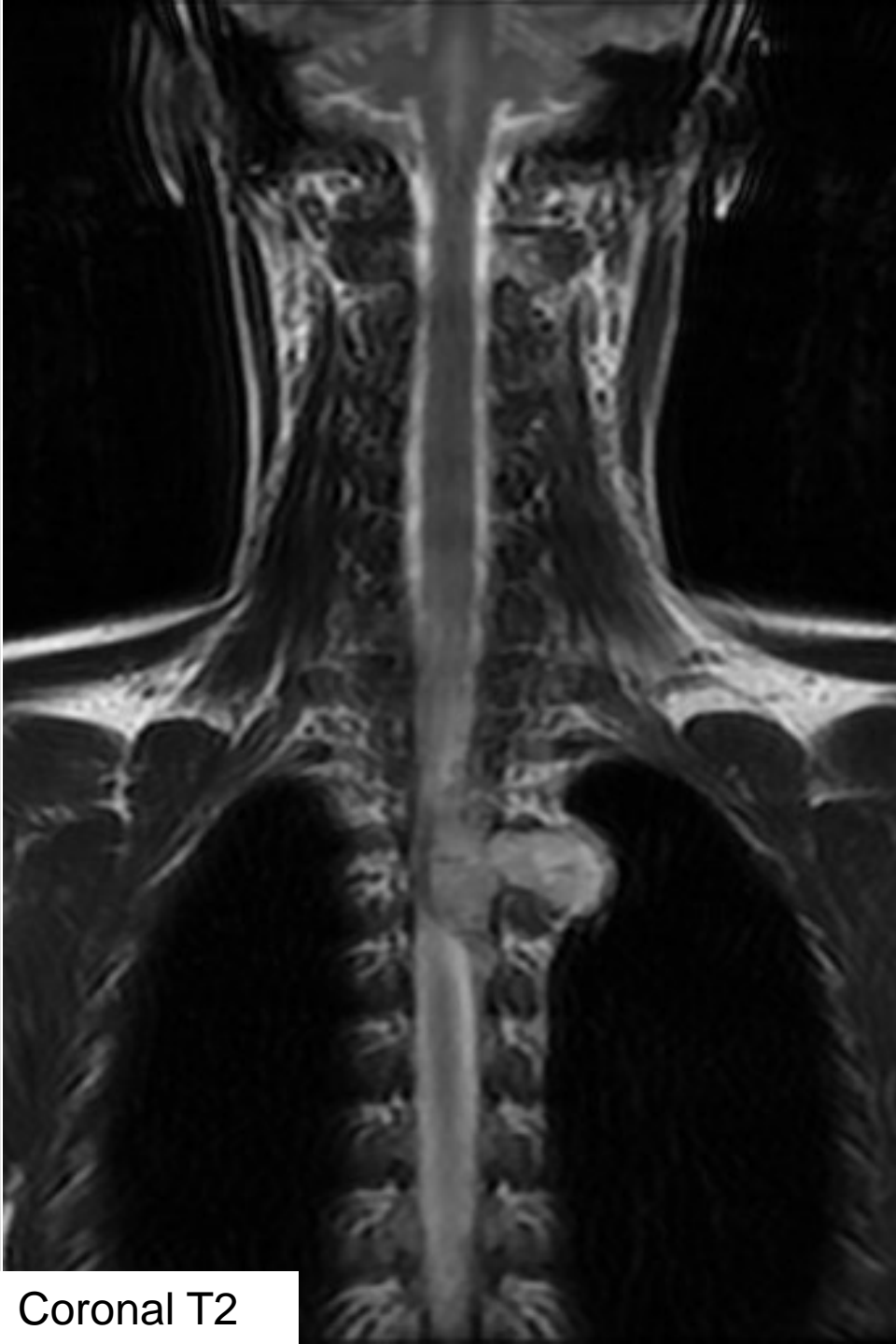
RADIOLOGIC STUDIES

Chest radiograph:

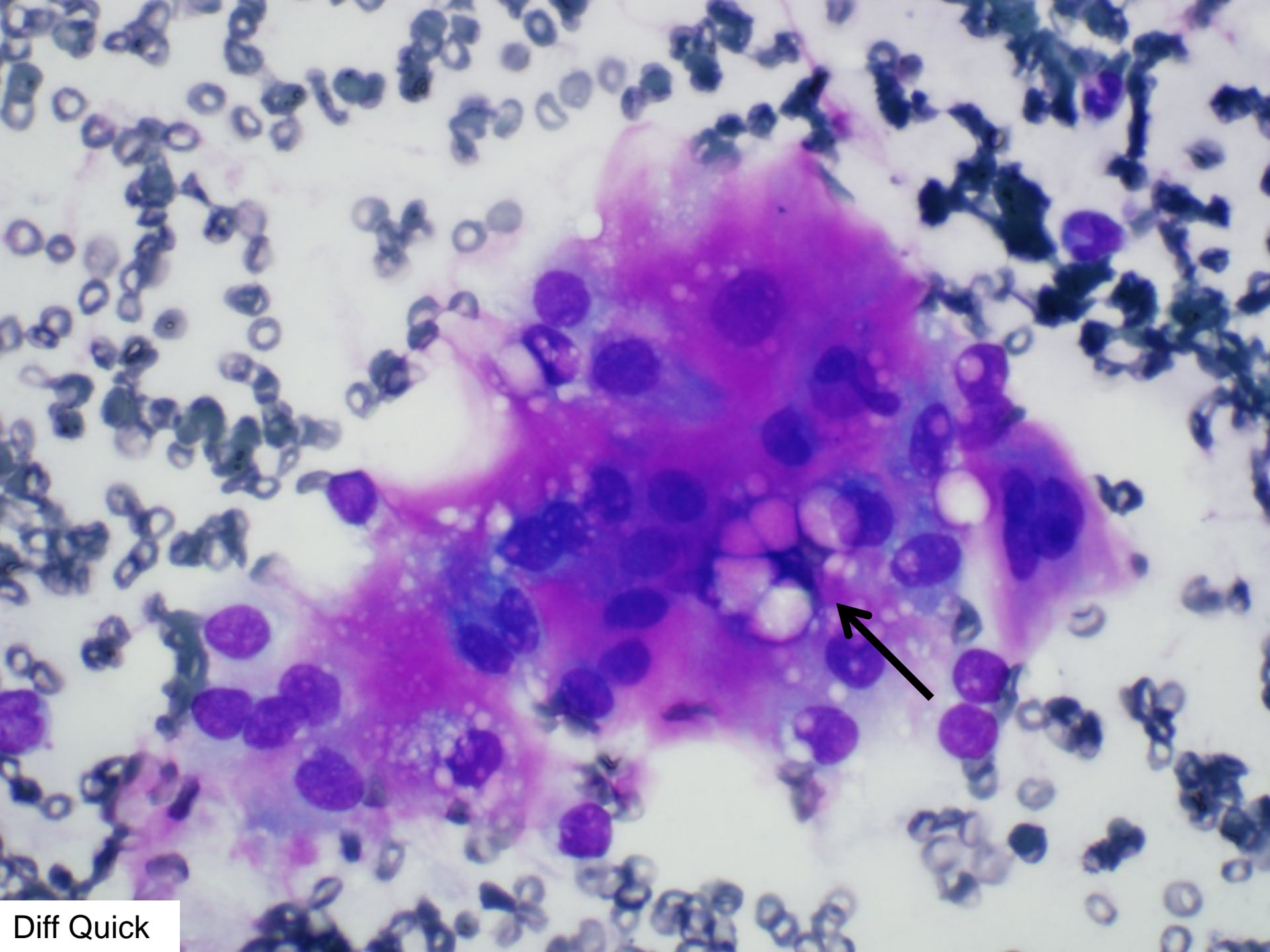
2.9 cm round opacity projecting just above the aortic arch

CT:

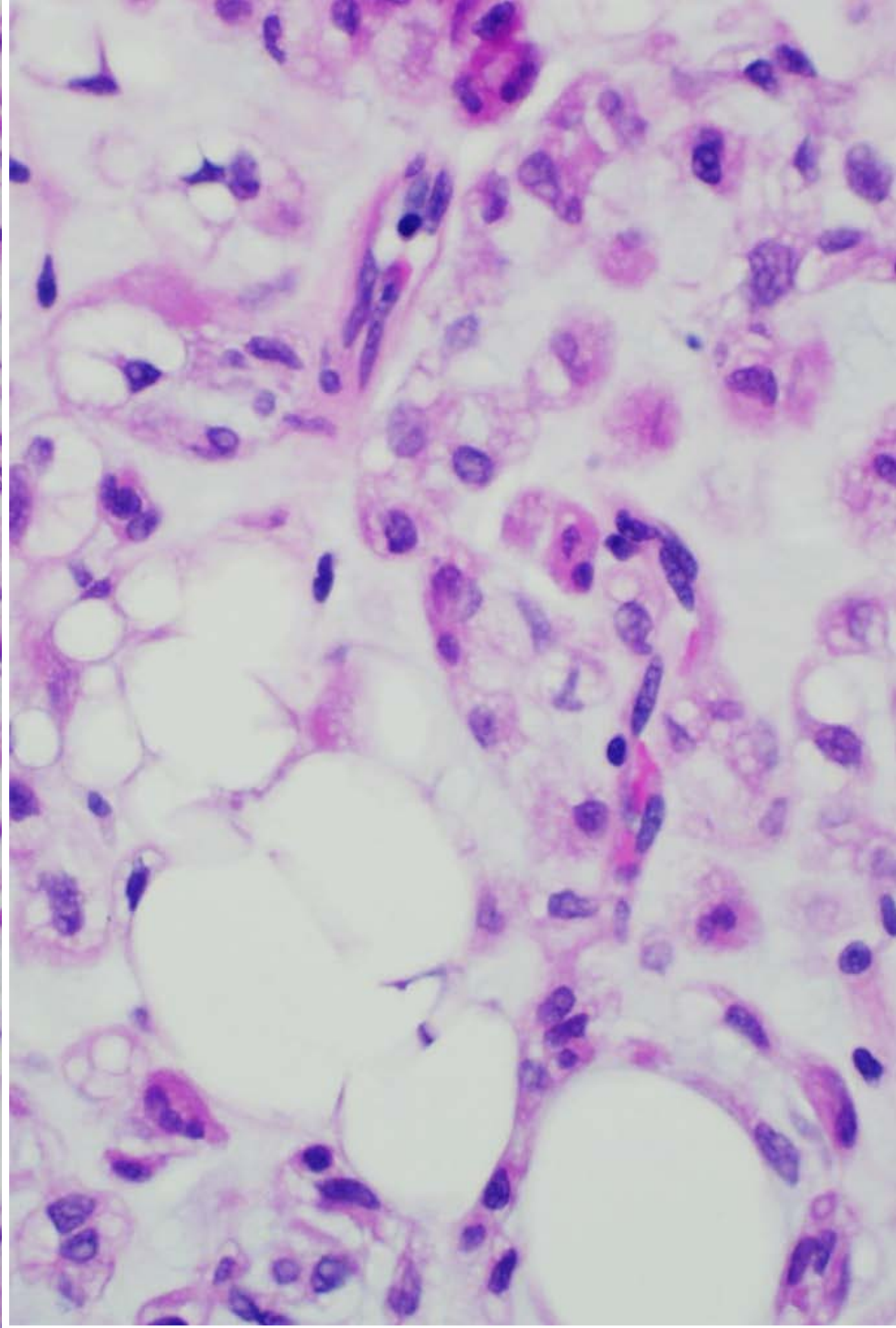
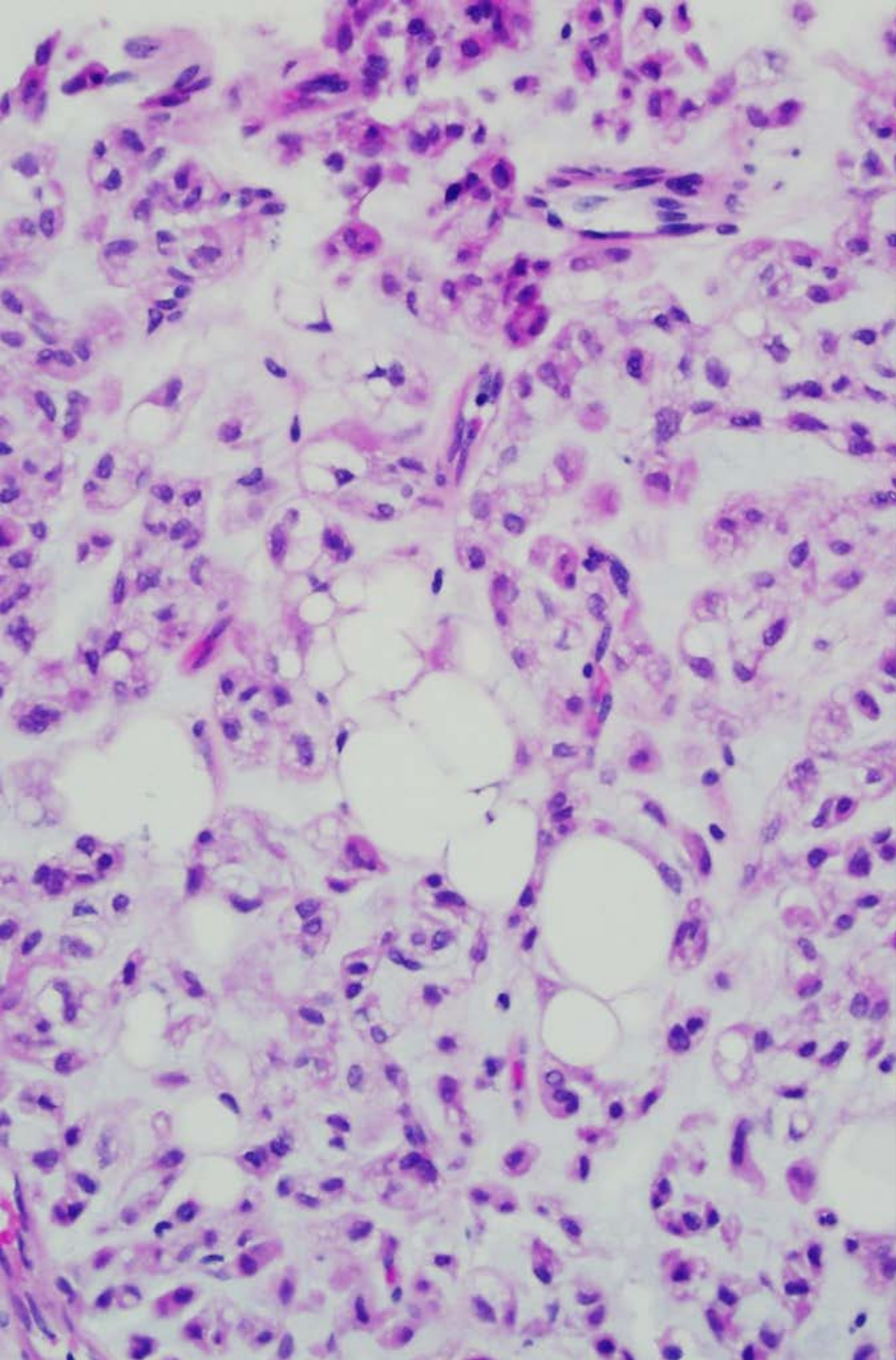
Posterior mediastinal mass extending from the left T3-T4 neural foramen



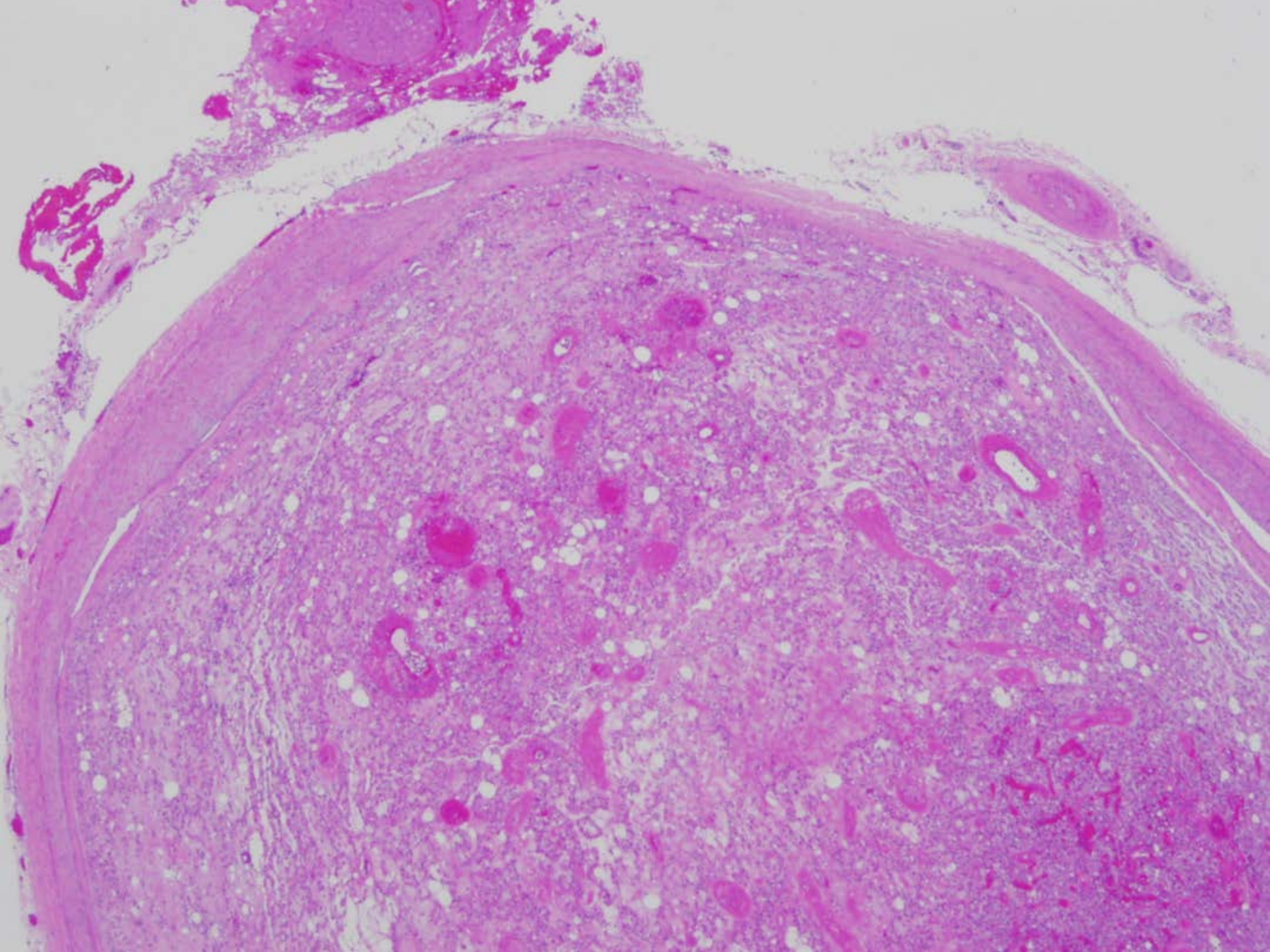
BIOPSY

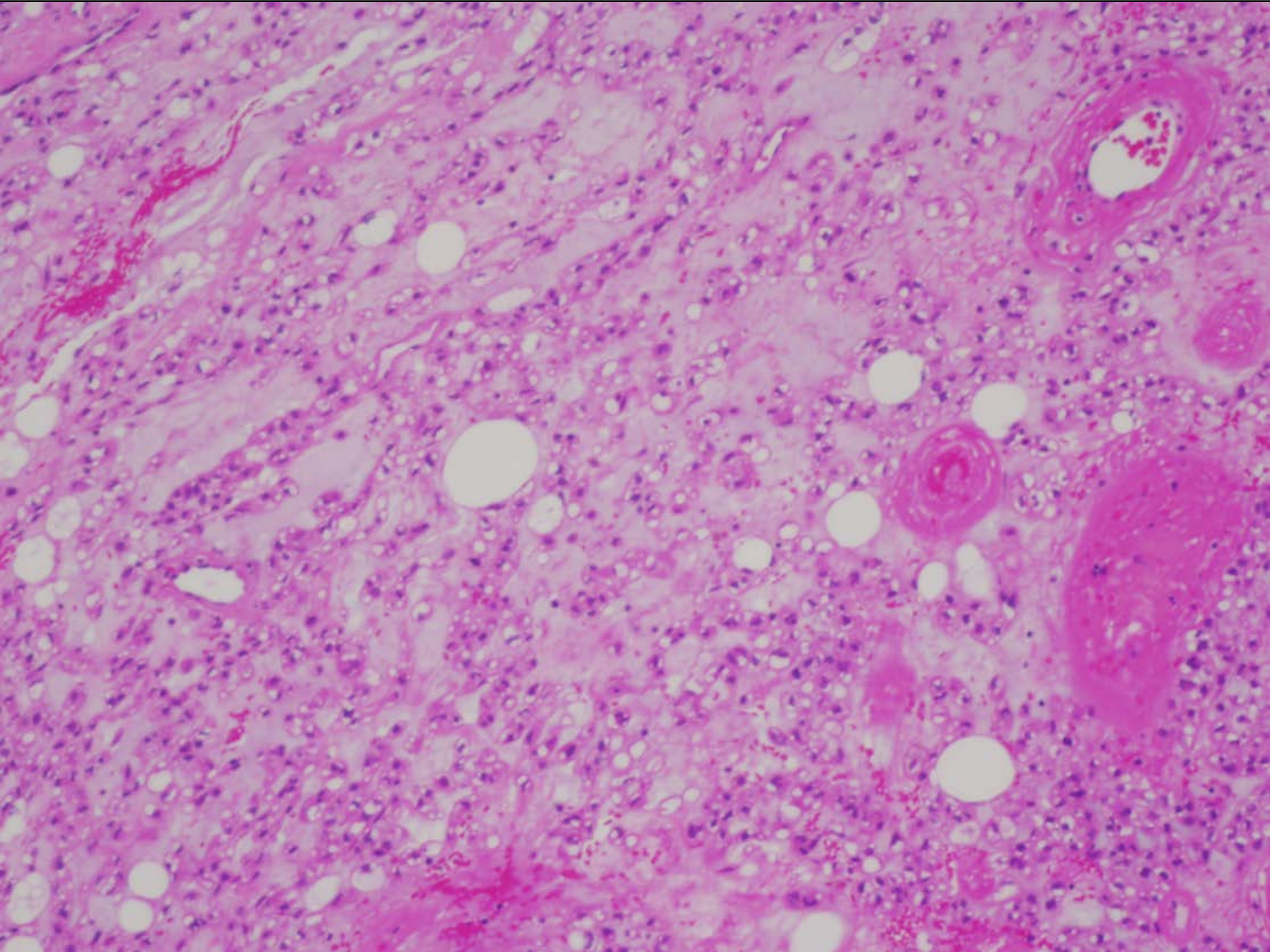


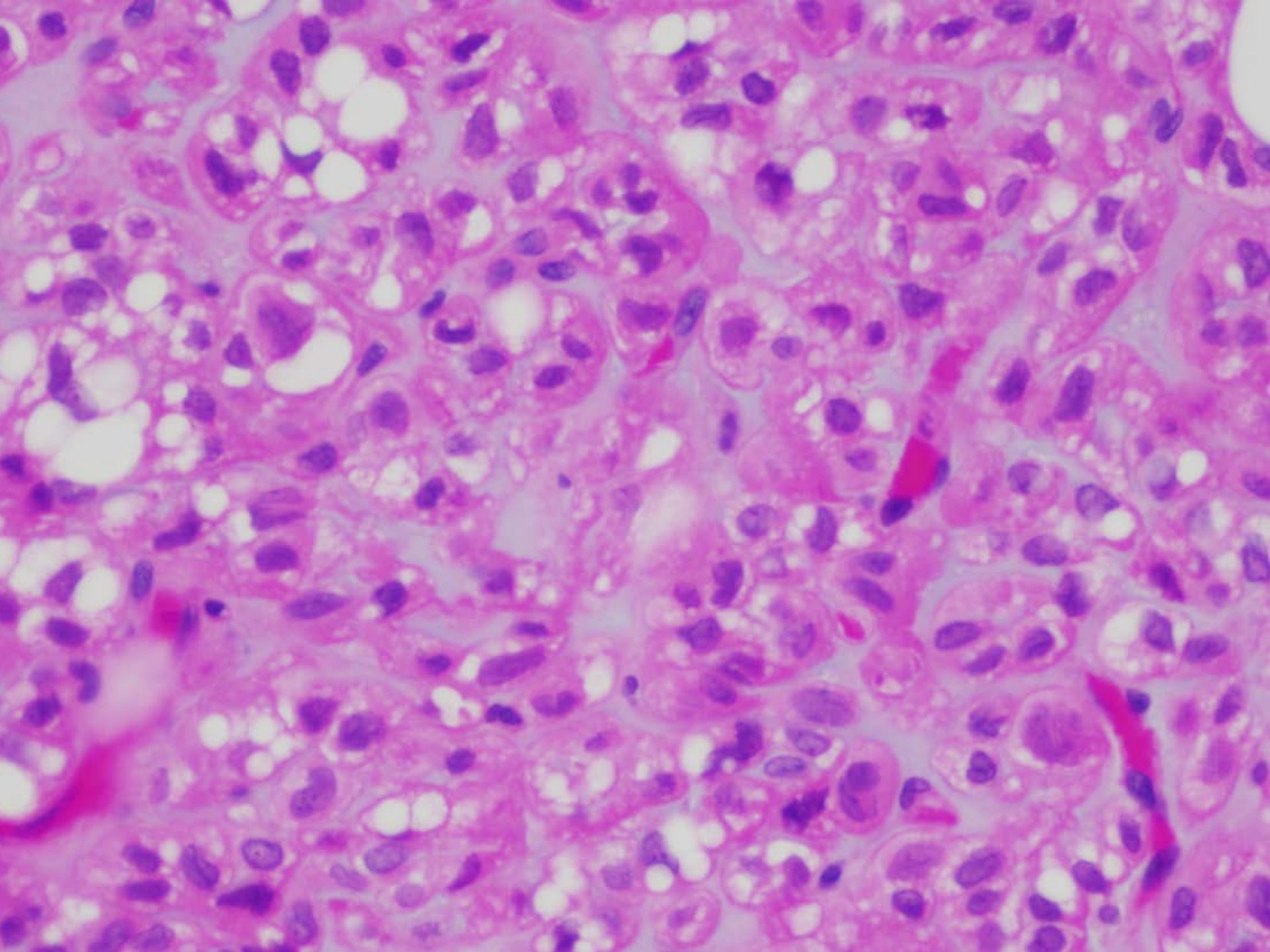
Diff Quick



RESECTION



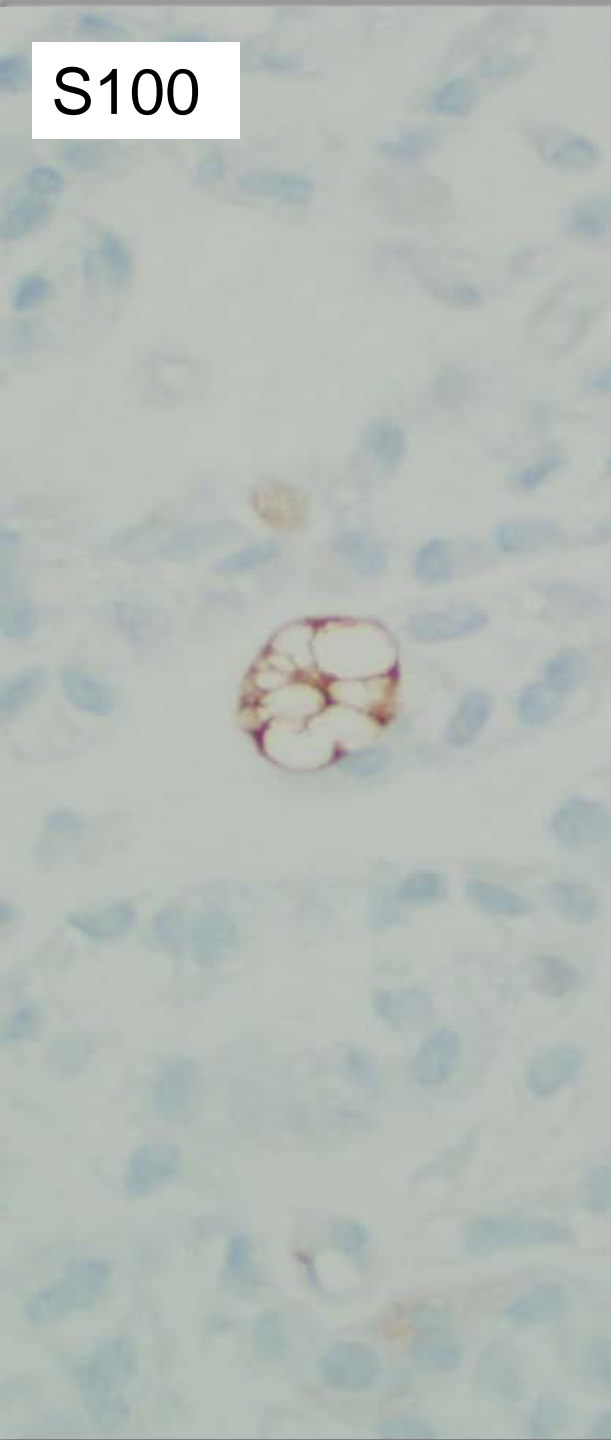




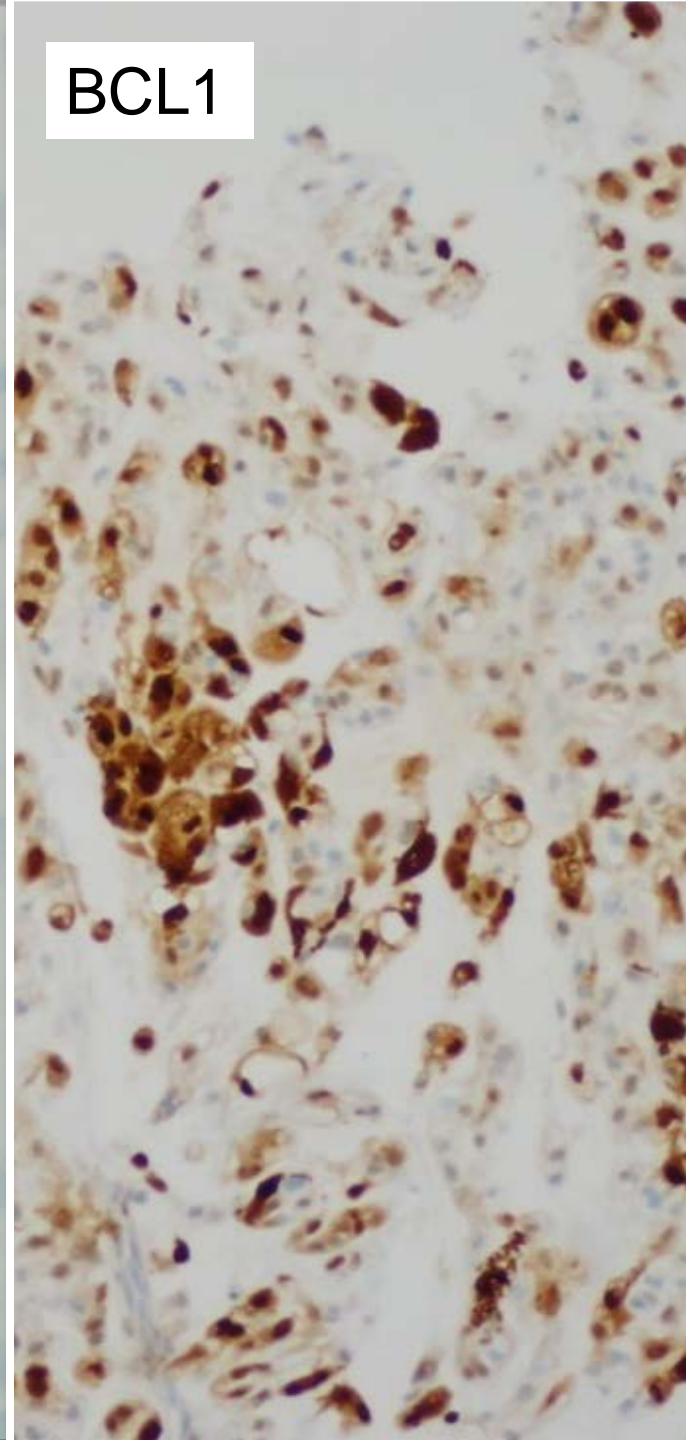
DIFFERENTIAL DIAGNOSIS?

IMMUNOSTAINS

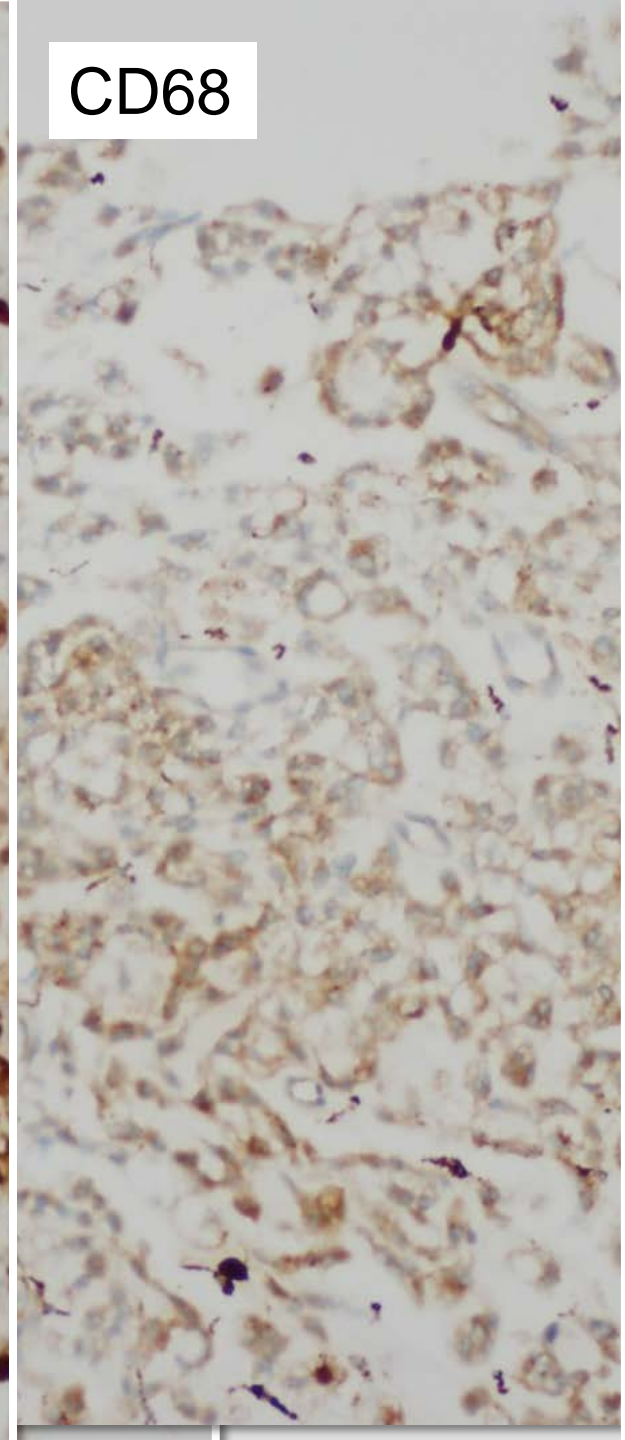
S100



BCL1



CD68



IHC SUMMARY

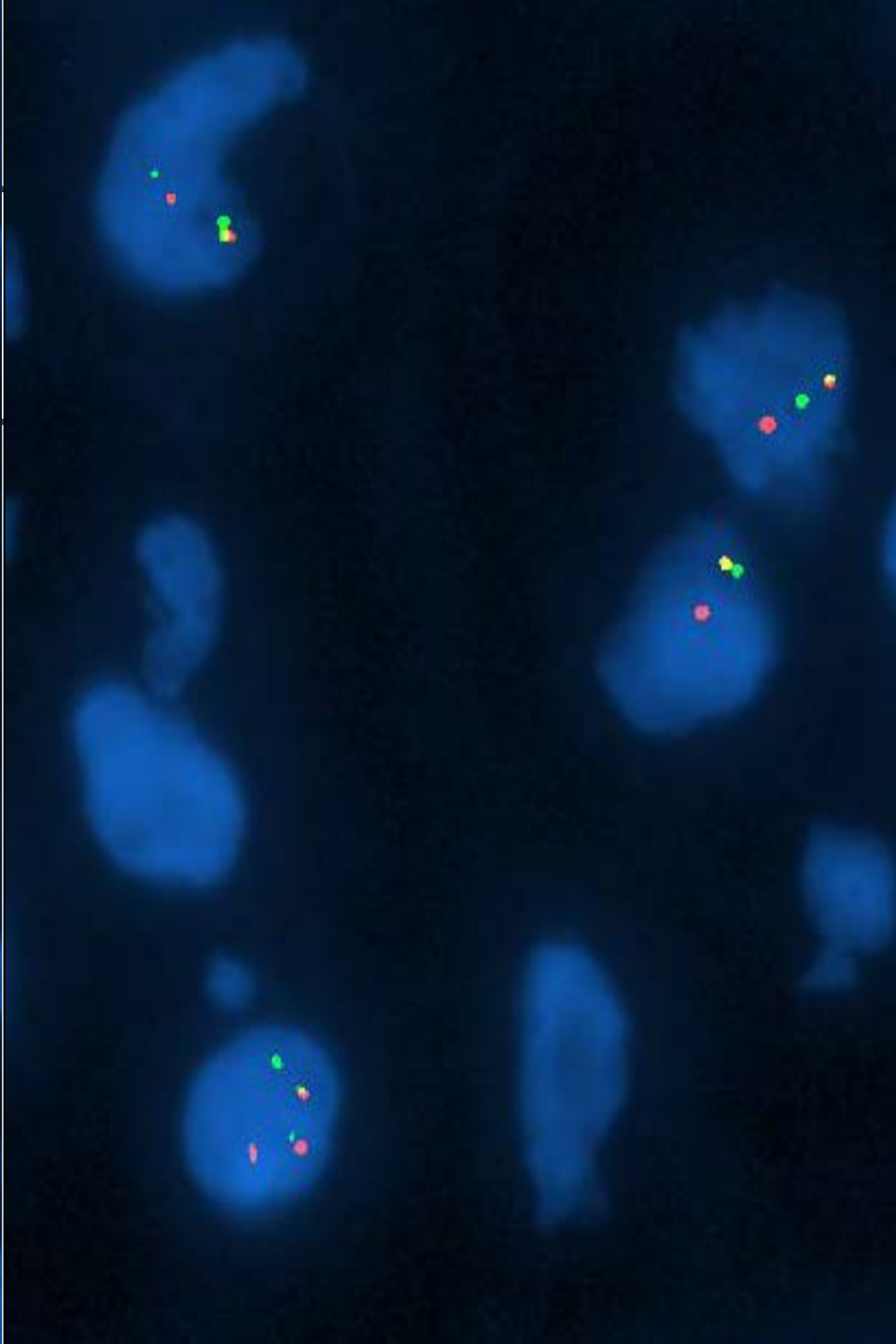
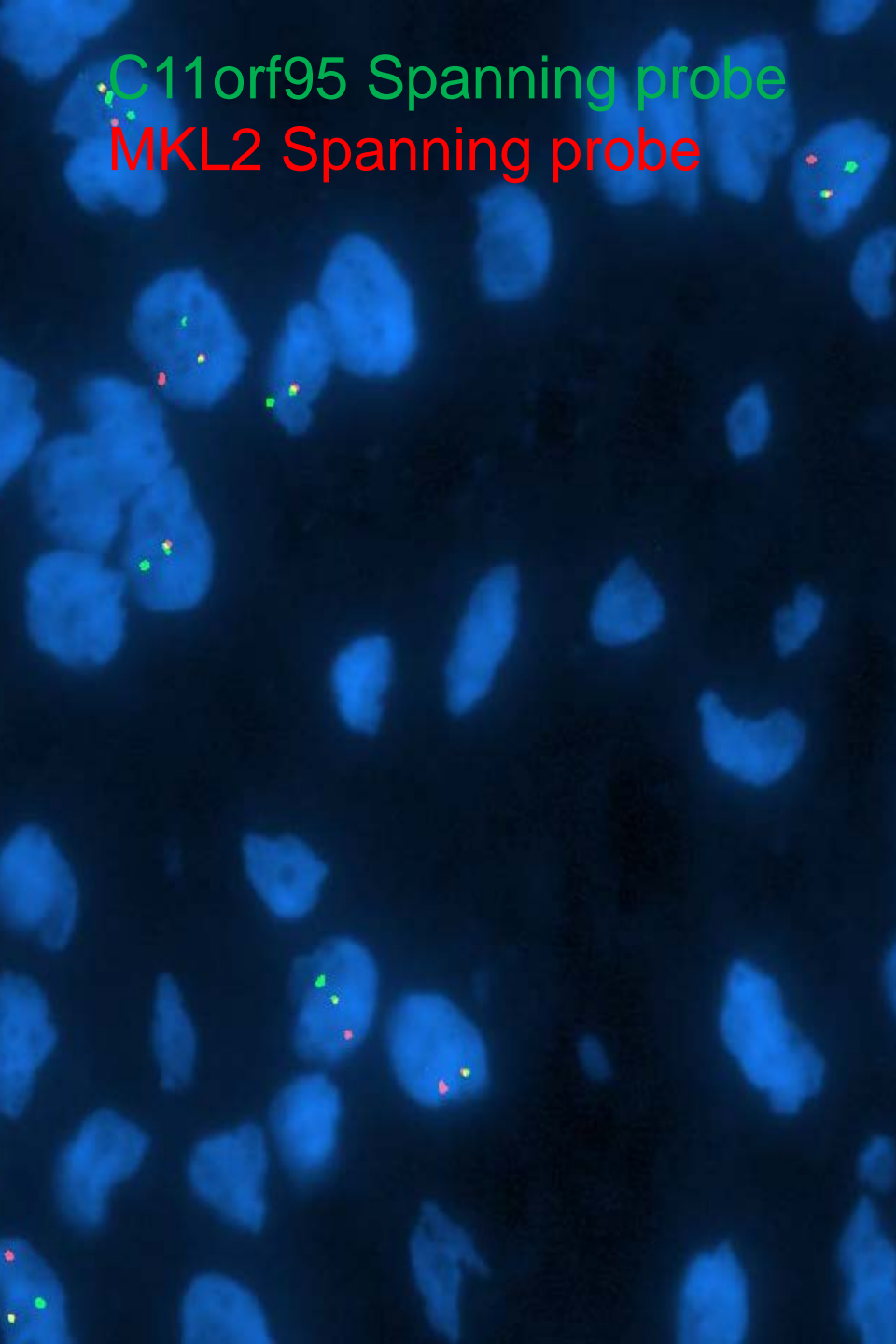
- Immunopositive: S100 (lipoblast-like cells), BCL1, and CD68
- Immunonegative: AE1/AE3, SOX10, and EMA
- Ki67 proliferative index: <1%

CYTOGENETICS AND MOLECULAR GENETICS

Fluorescence in situ hybridization (FISH)

- FUS gene rearrangement: Negative
- C11orf95-MKL2 fusion gene: Positive

C11orf95 Spanning probe
MKL2 Spanning probe



FINAL DIAGNOSIS:

CHONDROID LIPOMA

Chondroid Lipoma

A Unique Tumor Simulating Liposarcoma and Myxoid Chondrosarcoma

Jeanne M. Meis, M.D., and Franz M. Enzinger, M.D.

The American Journal of Surgical Pathology 17(11): 1103-1112, 1993

© 1993 Raven Press, Ltd., New York

Clinical

- Subcutaneous or deep soft tissues
- Extremities or trunk
- 2nd-3rd decade (females > males)
- No recurrence or metastasis
- Local excision is curative

Pathologic

- Mature adipose, myxochondroid matrix, vacuolated cells
- +S100, CD68, keratin (1/3)
- -EMA, HMB45, Actin
- t(11;16)(q13;p12-13) *clorf95-MKL2*



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Genes Chromosomes Cancer. 2010 September ; 49(9): 810–818. doi:10.1002/gcc.20788.

***C11orf95-MKL2* is the Resulting Fusion Oncogene of t(11;16) (q13;p13) in Chondroid Lipoma**

Dali Huang¹, Janos Sumegi², Paola Dal Cin³, John D. Reith⁴, Taketoshi Yasuda¹, Marilu Nelson⁵, David Muirhead¹, and Julia A. Bridge^{1,5,6,*}

- MKL2 gene
 - Gene in the myocardin/megakaryoblastic leukemia gene family
 - Codes for a 1049 amino acid myocardin-like protein that can act as a transcription factor
- C11orf95 protein
 - Function yet to be determined

PATIENT UPDATE

- Patient doing very well: denies fevers, chills, sweats, wound difficulty, drainage, weakness of extremities, or incontinence
- Post-operative pain/spasm still present but improving daily
- MRI: No evidence of residual or recurrent disease

CONCLUSION

- Rare soft tissue neoplasm most often occurring in young women in the extremities
- May cause concern due to size and presence of lipoblasts
- Behave in a benign fashion
- Small biopsies and uncommon locations may cause diagnostic confusion

REFERENCES

1. Huang D, Sumegi J, Dal Cin P, Reith JD, Yasuda T, Nelson M, Muirhead D, Bridge JA. C11orf95-MLK2 is the resulting fusion oncogene of t(11,16)(q13;p13) in chondroid lipoma. *Genes Chrom Ca* 2010;49(9):810-18.
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3. Thway K, Rashpal S, Fisher C. Chondroid Lipoma: an update and review. *Ann Diag Pathol* 2012;16(3):230-4.

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