XXV CONGRESO DE LA S.E.A.P-IAP
XX CONGRESO DE LA S.E.C
I CONGRESO DE LA S.E.P.A.F
Zaragoza, 18-21 de Mayo de 2011

DRA. GARCÍA MACÍAS
HOSPITAL UNIVERSITARIO SALAMANCA
SALAMANCA . ESPAÑA

En memoria
Profesor José María
Rivera Pomar

GRAN SEMINARIO INTERACTIVO DE CITOPATOLOGIA

HISTORIA CLÍNICA:

- Mujer de 54 años.
- Antecedentes personales:
  - Otitis, timpanoplastia, quistes hepáticos simples, hallux valgus, tratada de reflujo gastroesofágico
  - 1996:
    - hipotiroidismo subclínico.
    - Tiroidopatía autoinmune, tipo Hashimoto normofuncional

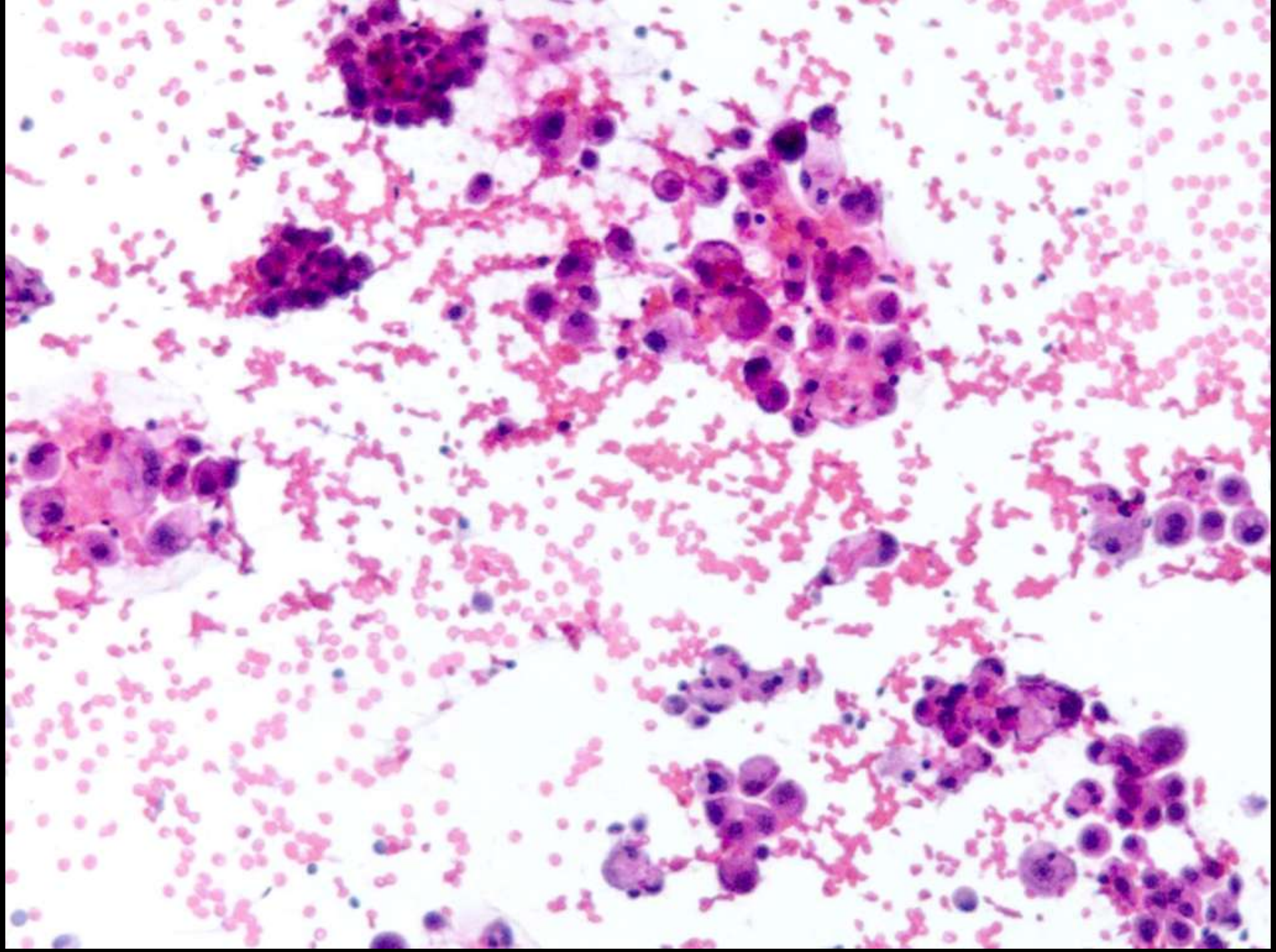
HISTORIA CLÍNICA:

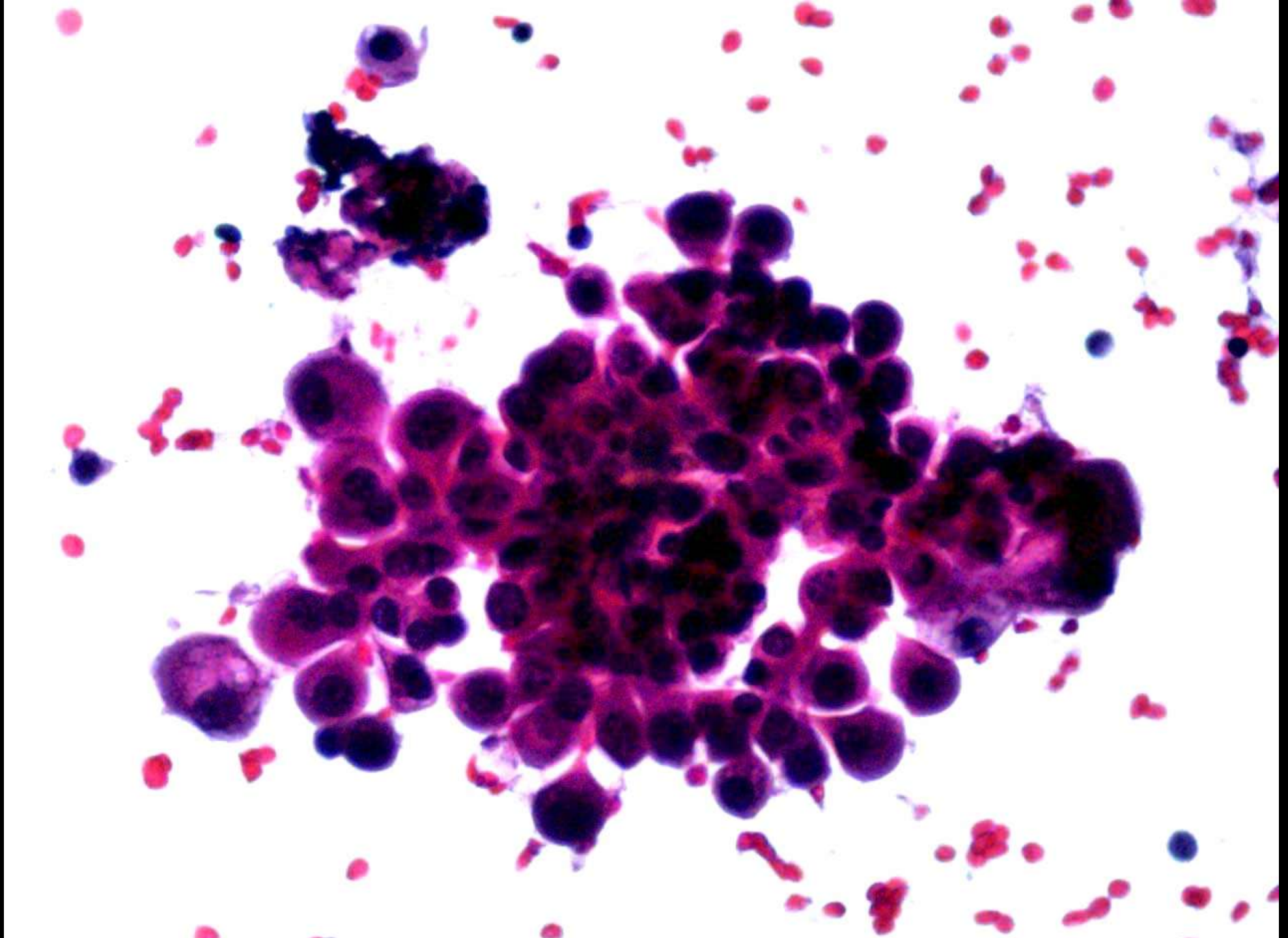
- **Enfermedad actual:**
  - **Aumento de tamaño de glándula tiroidea con nódulo de aproximadamente 2 cm. localizado en itsmo.**
  - **Se palpan adenopatías yugulocarotídeas en región laterocervical derecha.**
- **Ecografía tiroidea:**
  - **Tiroiditis autoinmune con nódulos en itsmo y lóbulo derecho.**
  - **Ganglio laterocervical izquierdo.**

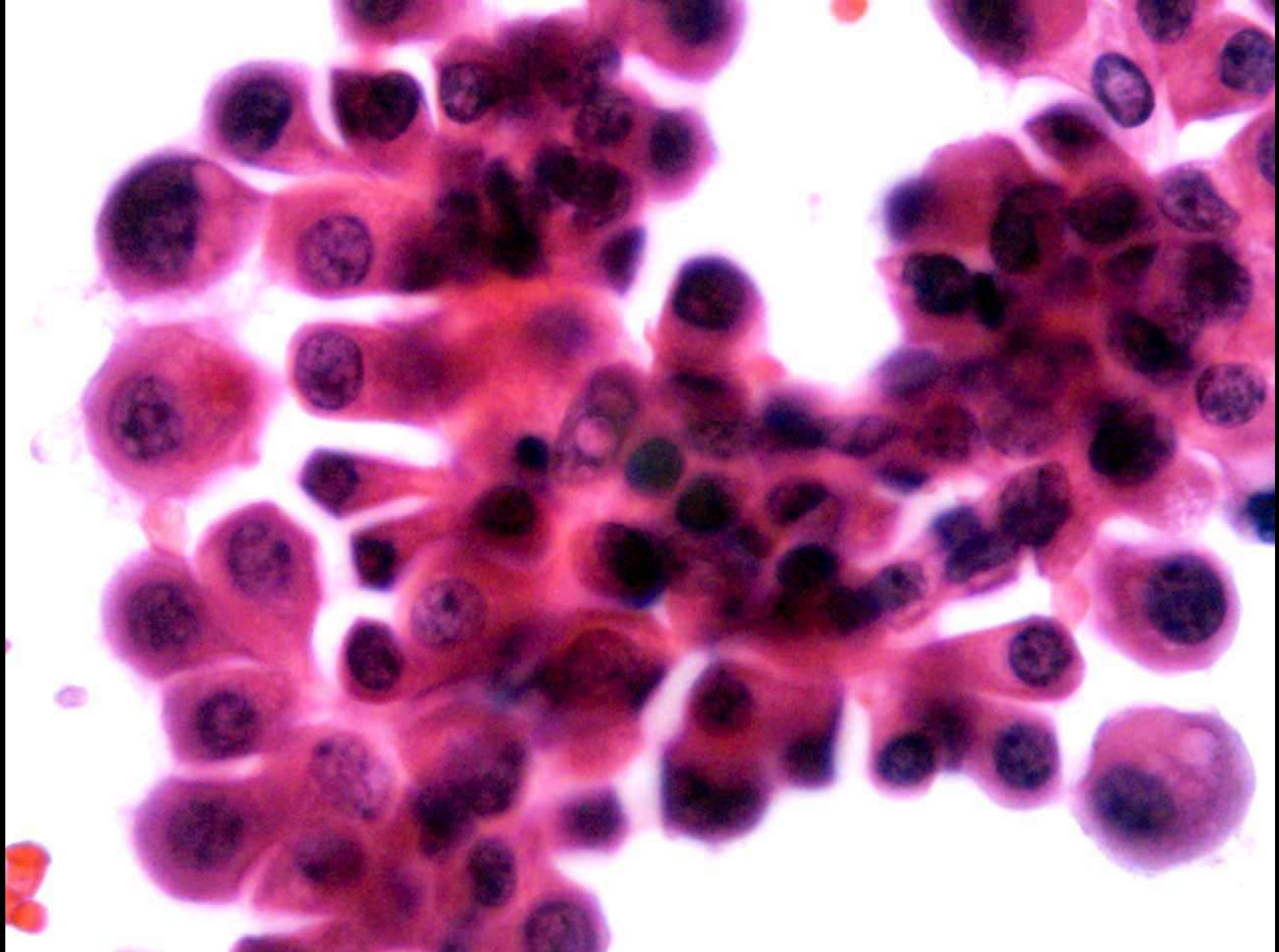
PUNCIÓN ASPIRACIÓN AGUJA FINA (PAAF)

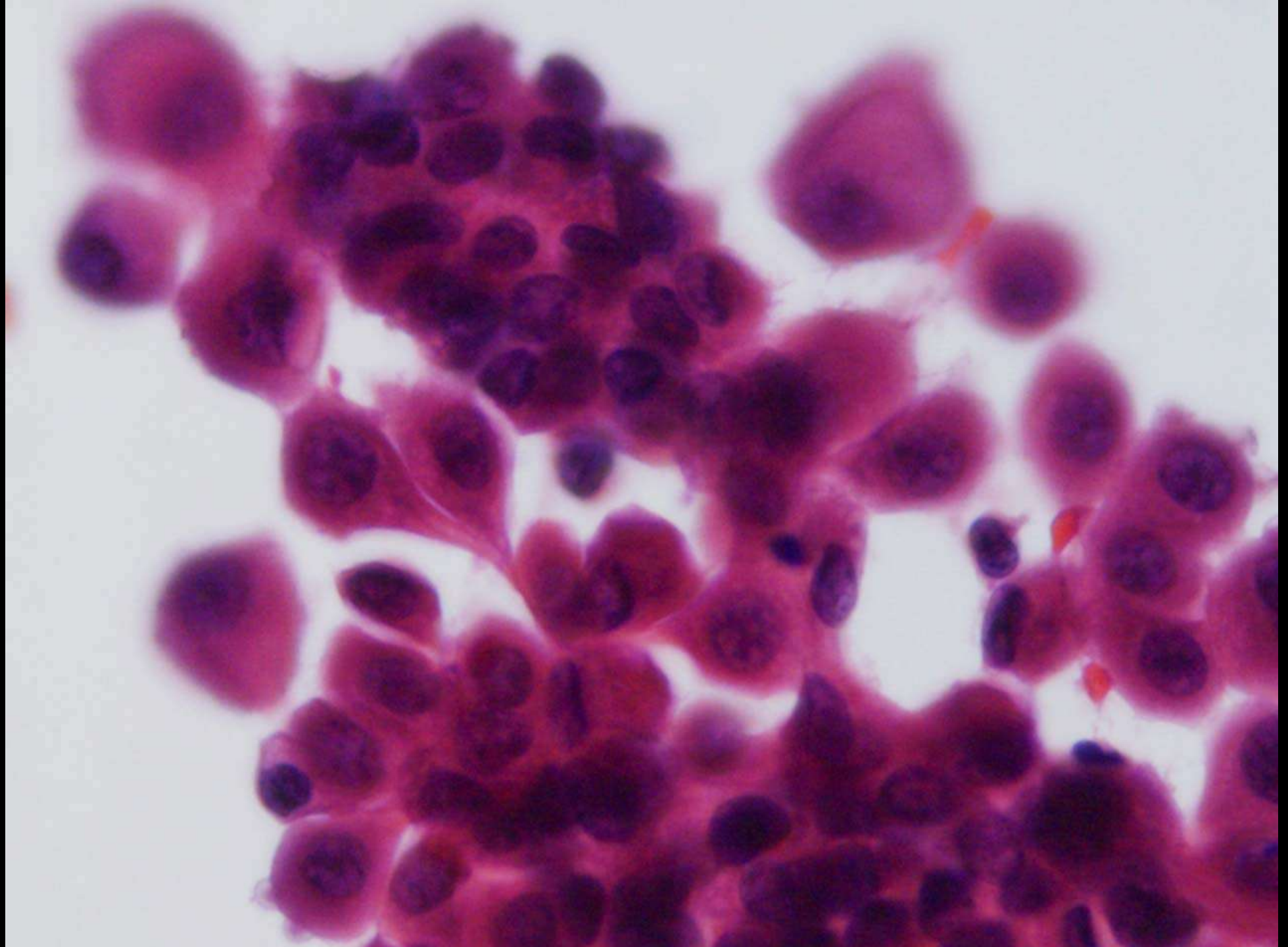
- **Palpación:**
  - **Nódulo de 2 cms en istmo de tiroides**

- **Se realizan 2 PAAF, bajo control ecográfico**
  - **Se reciben 6 portas y bote con lavado de aguja con material de aspecto hemorrágico**









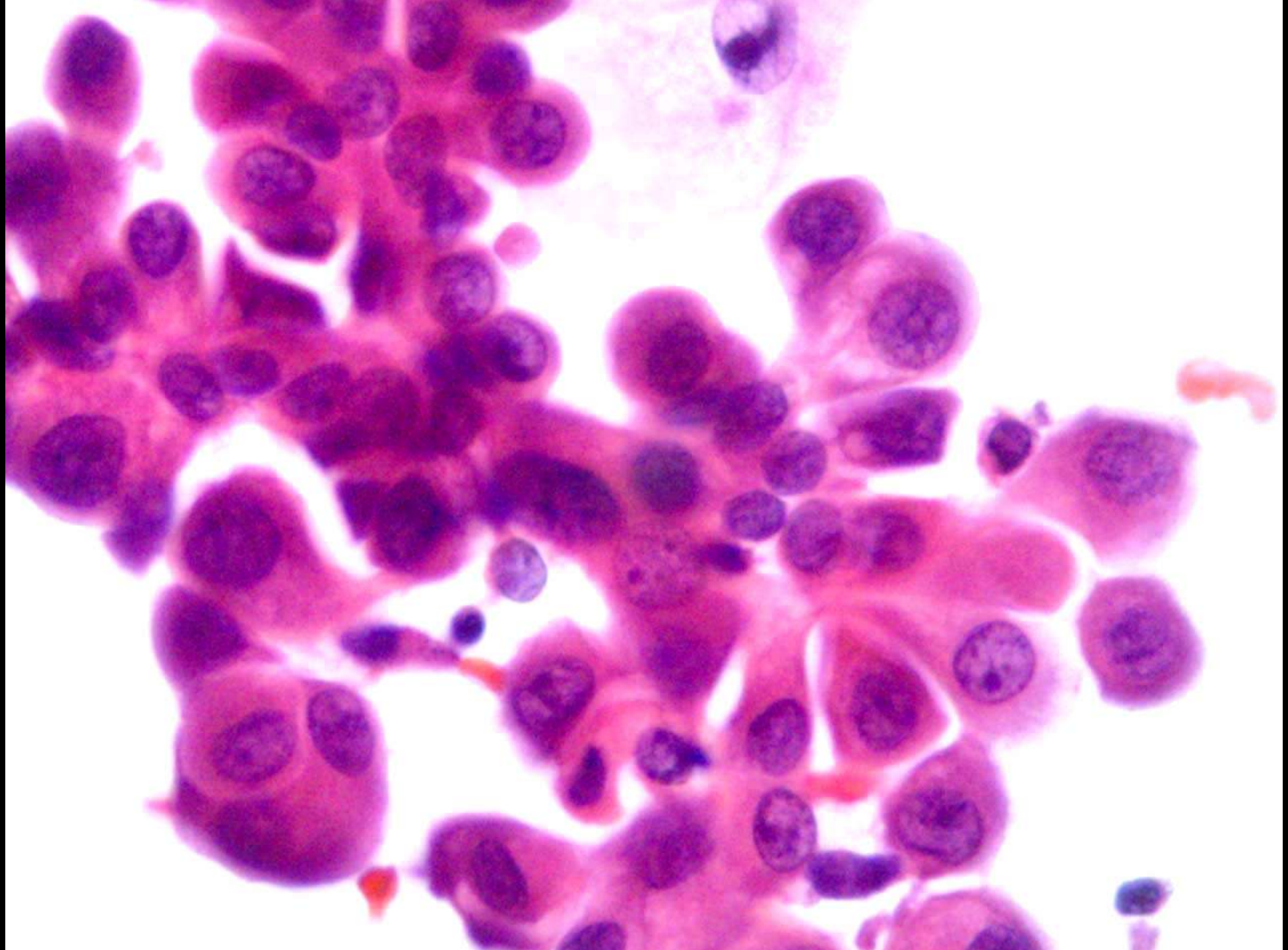
POSIBILIDADES DIAGNÓSTICAS

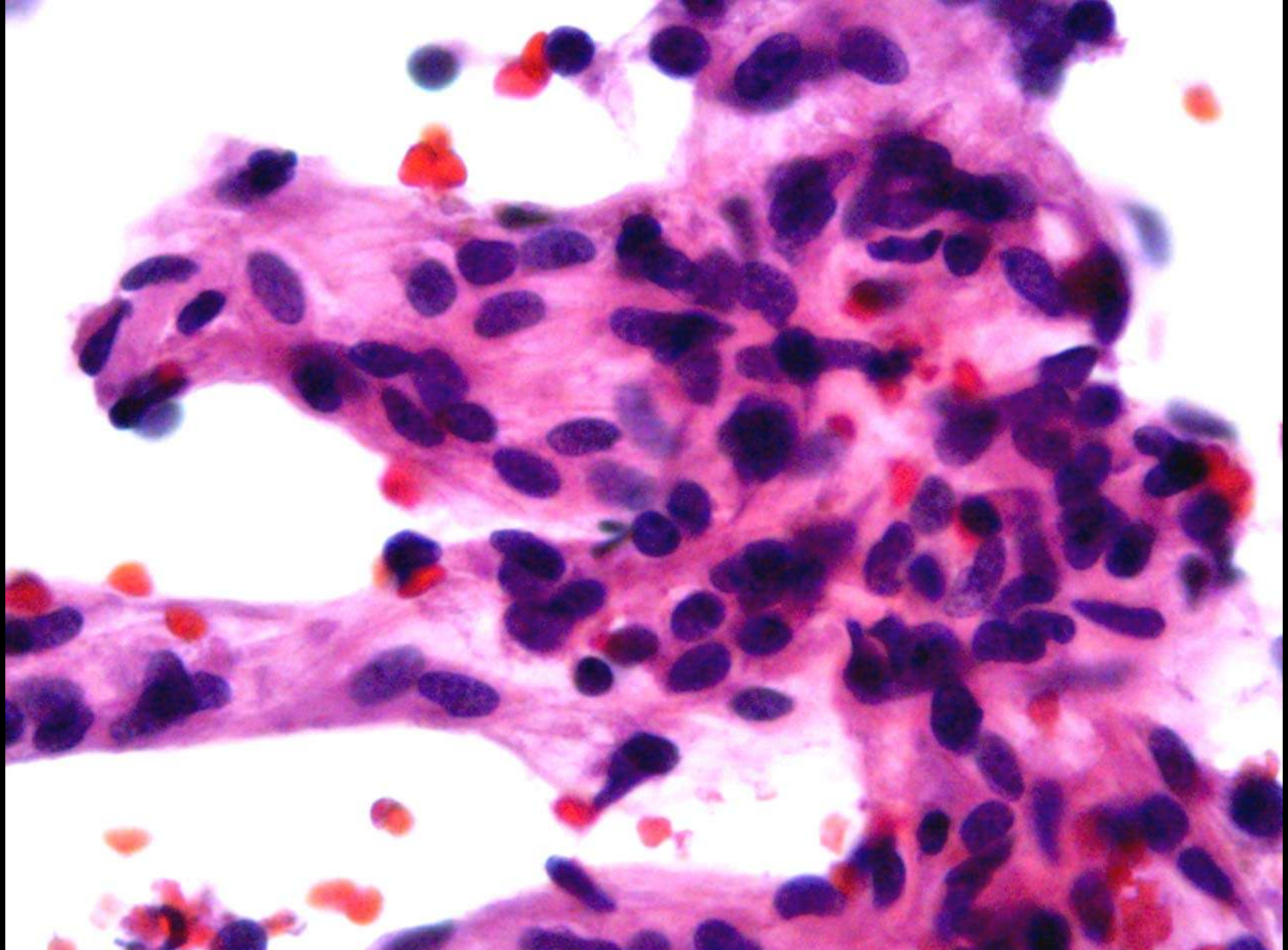
1.- Lesión proliferativa de Células de Hurthle, asociada con Tiroiditis de Hashimoto.

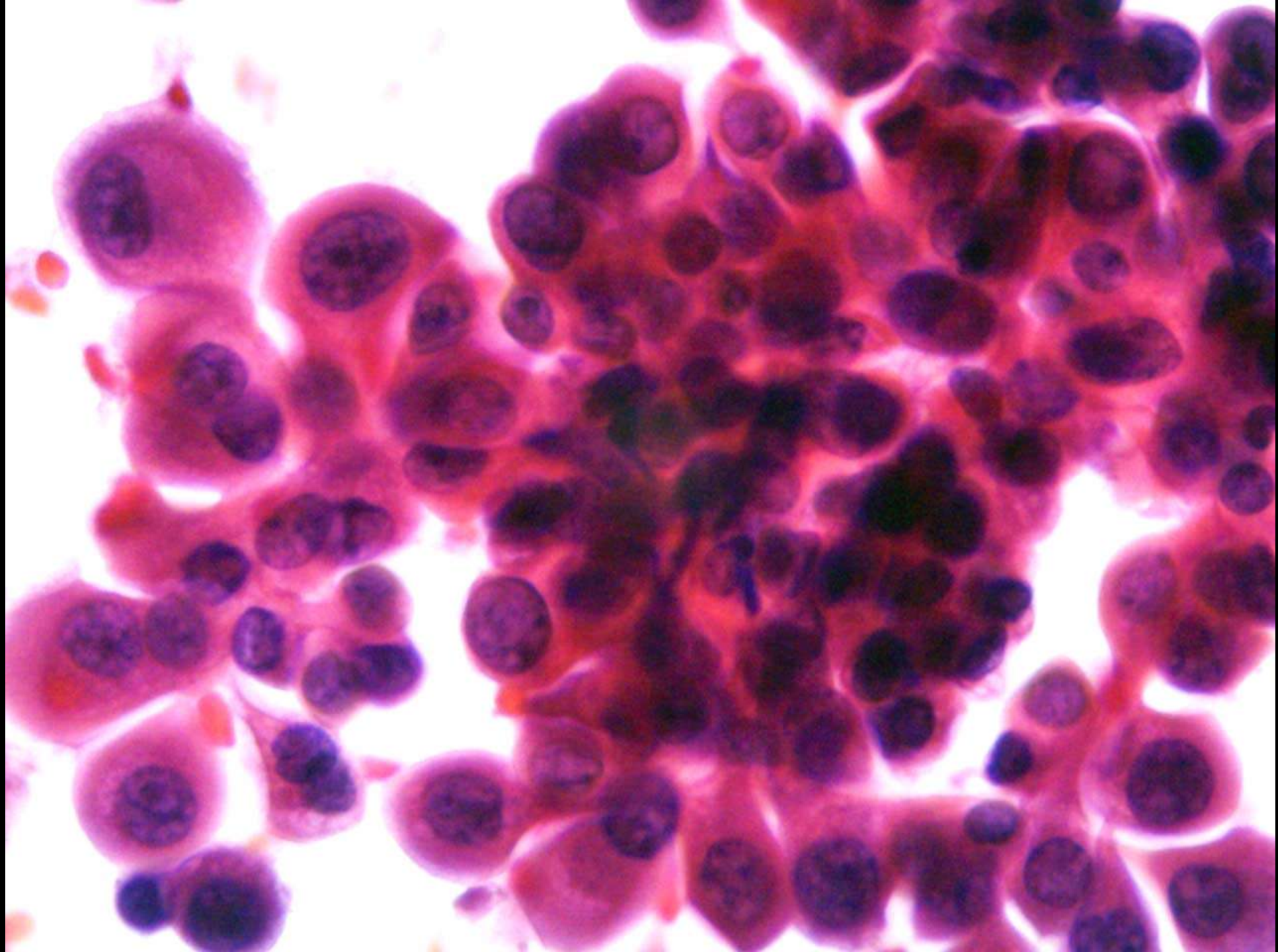
2.- Tiroiditis de Hashimoto

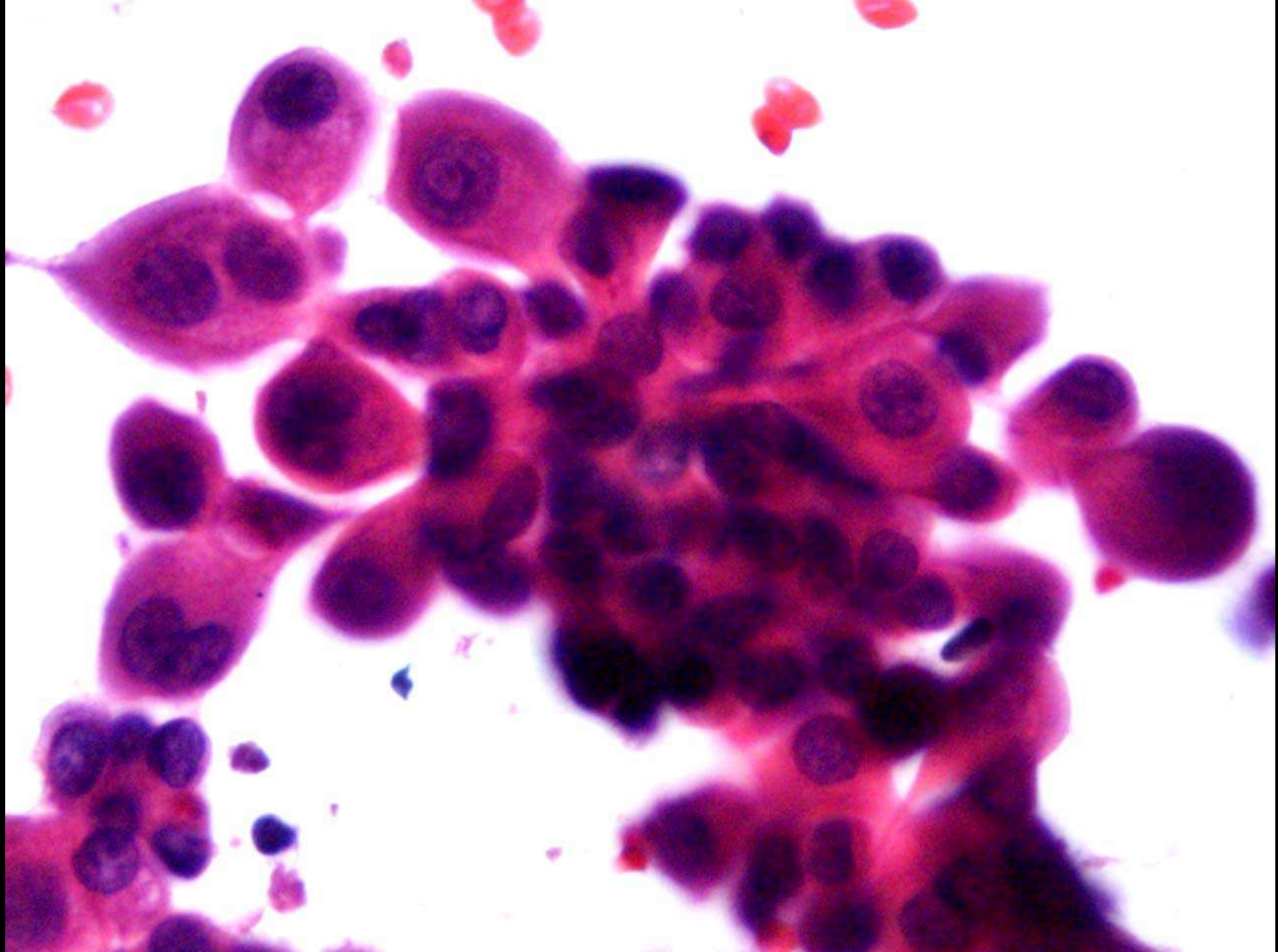
3.- Carcinoma papilar, variante oncocítica

4.- Carcinoma papilar de patrón mixto (papilar y folicular), con áreas de diferenciación oncocítica y tiroiditis crónica linfocitaria difusa.









DIAGNÓSTICO CITOLÓGICO:

Carcinoma papilar, variante oncocítica.

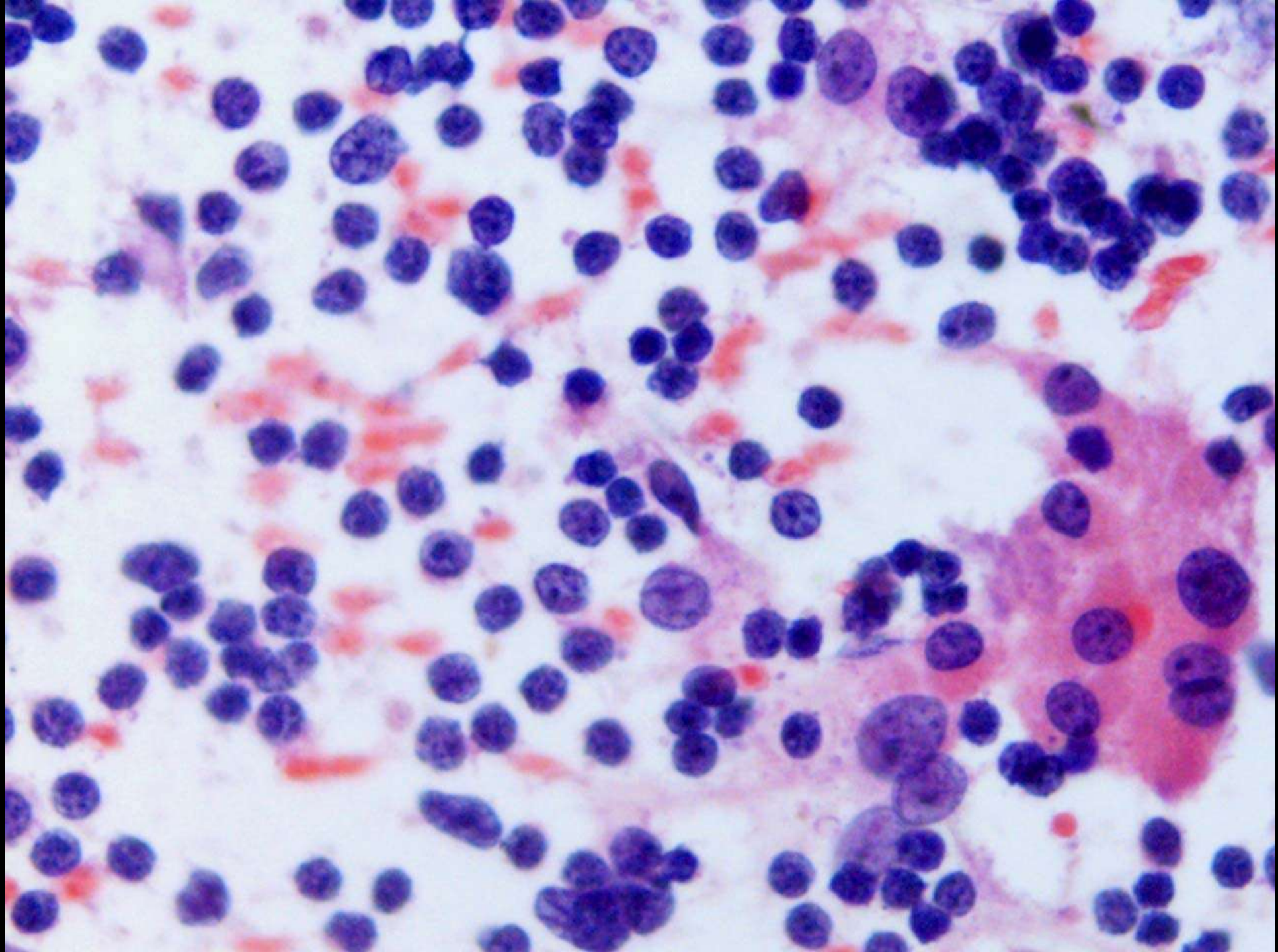
HALLAZGOS ANATOMOPATOLÓGICOS

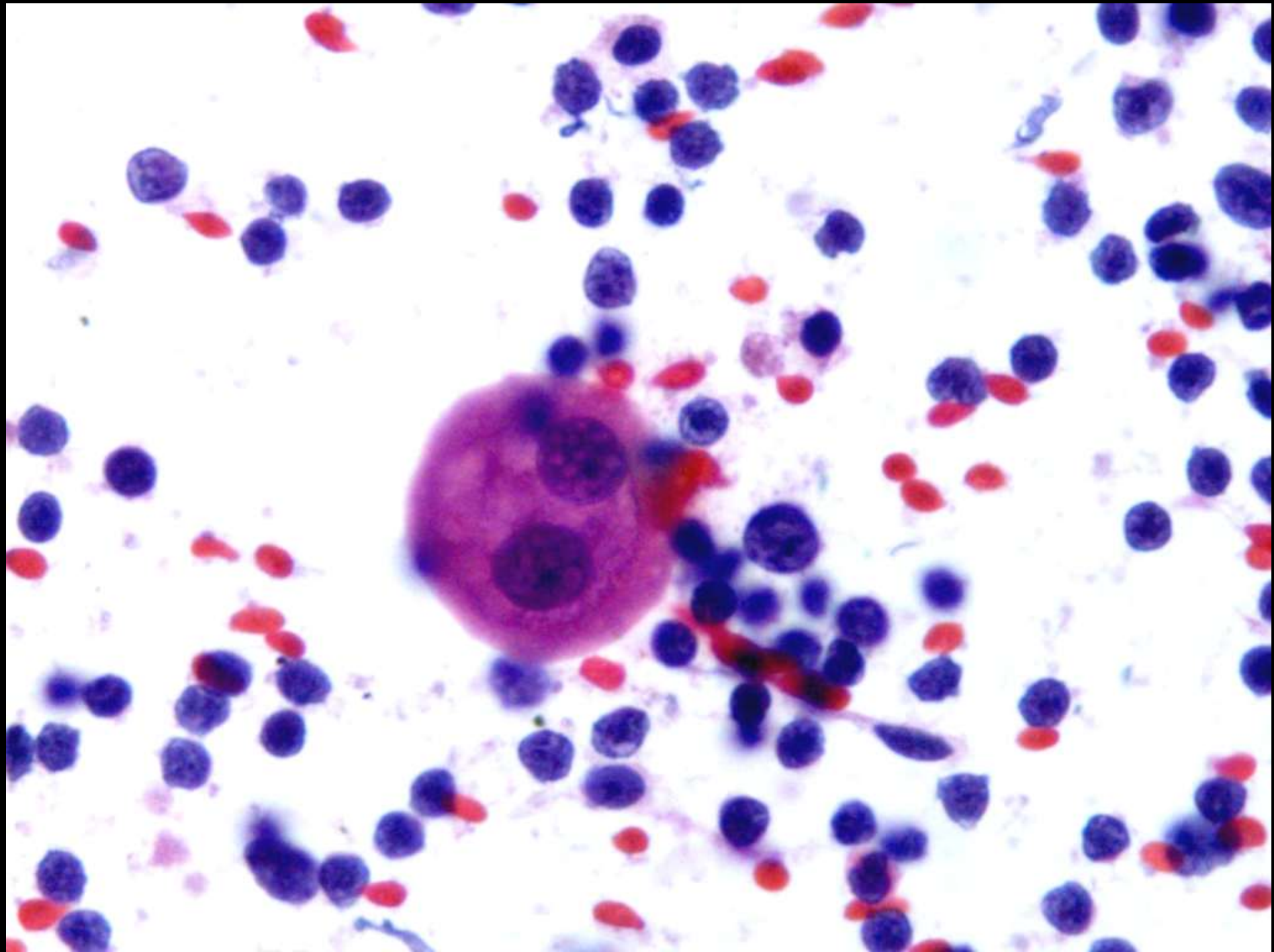
- **MACRO:**

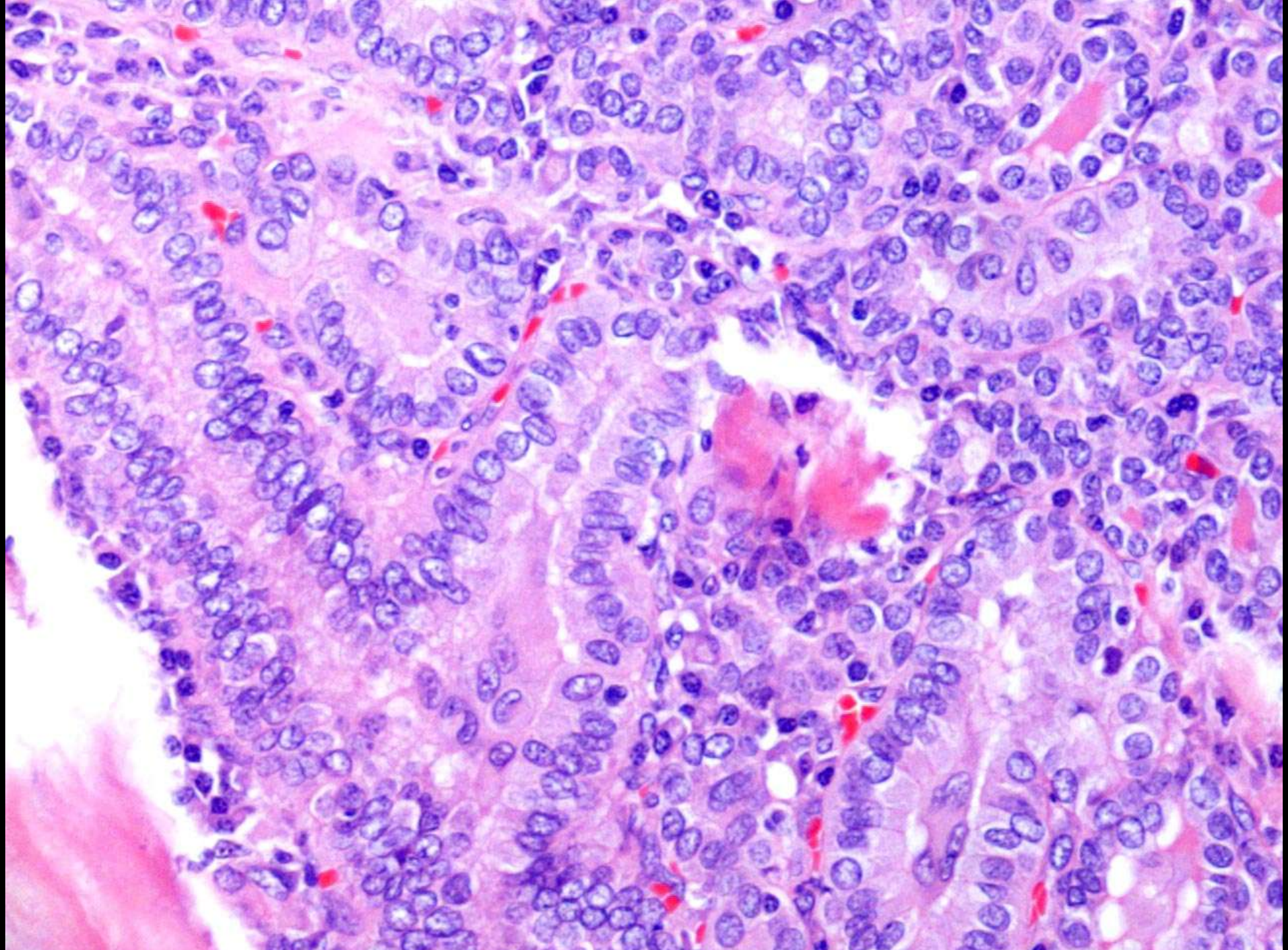
- Pieza de tiroidectomía total, de 15 grs. más parte de compartimento central.
- Mide 7x3,5x1,5cms.
- A la sección, en uno de los lóbulos, zonas heterogéneas, con áreas parduzcas con otras marronáceas más oscuras.
- Lóbulo contralateral: formación redondeada, ovoidea de 1,8 cm, coloración amarillenta, parcialmente cavitada, contenido líquido claro.

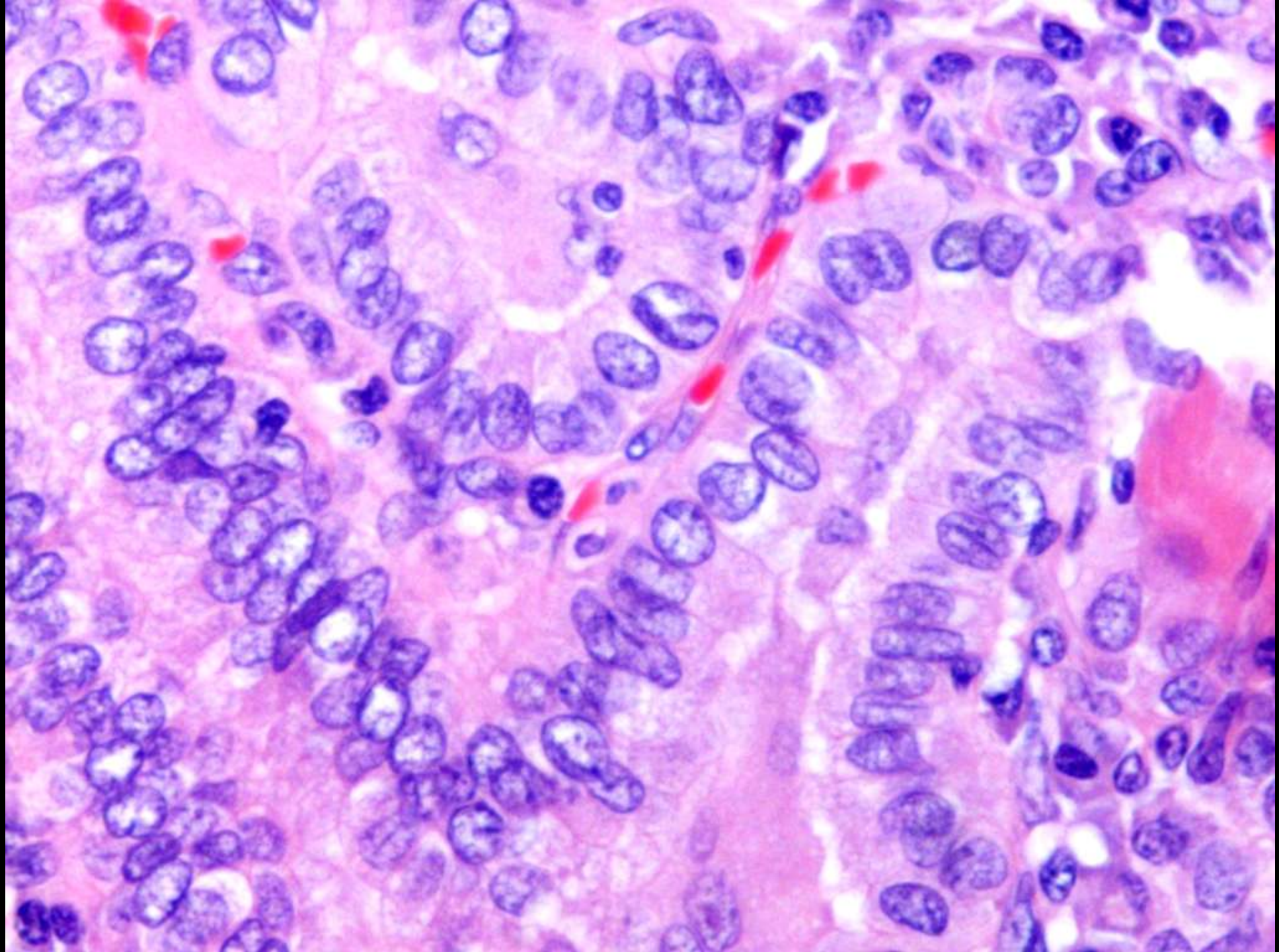
HALLAZGOS ANATOMOPATOLÓGICOS

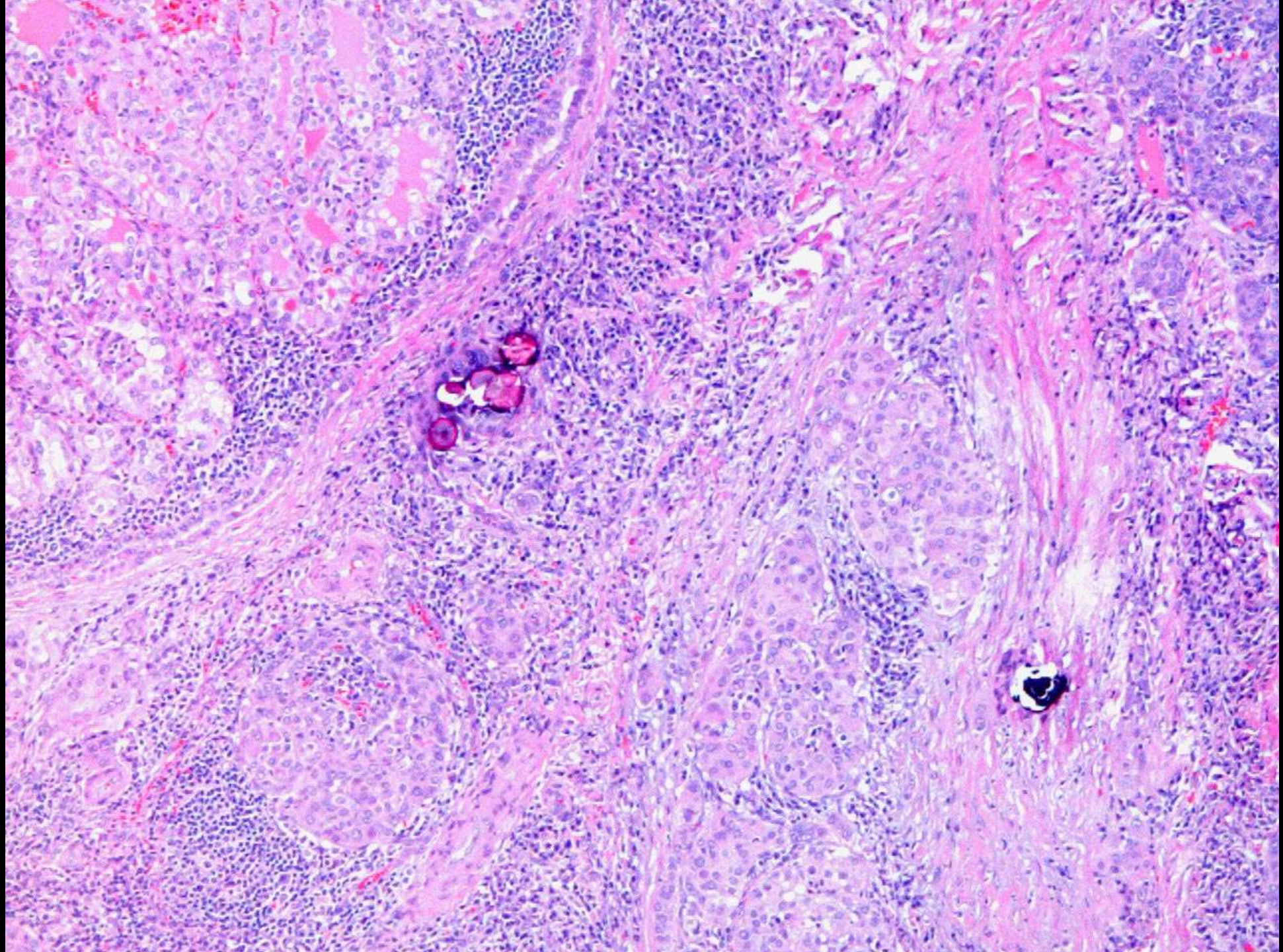
- **MACRO:**
  - Cadena recurrencial derecha y compartimento central derecho
  - Cadena recurrencial izquierda, más compartimento central izquierdo
  - Cadena ganglionar yúgulo carotídea izquierda: mide 7x1,5x1cm. Se aislan 14 nódulos, el mayor de 1cm.

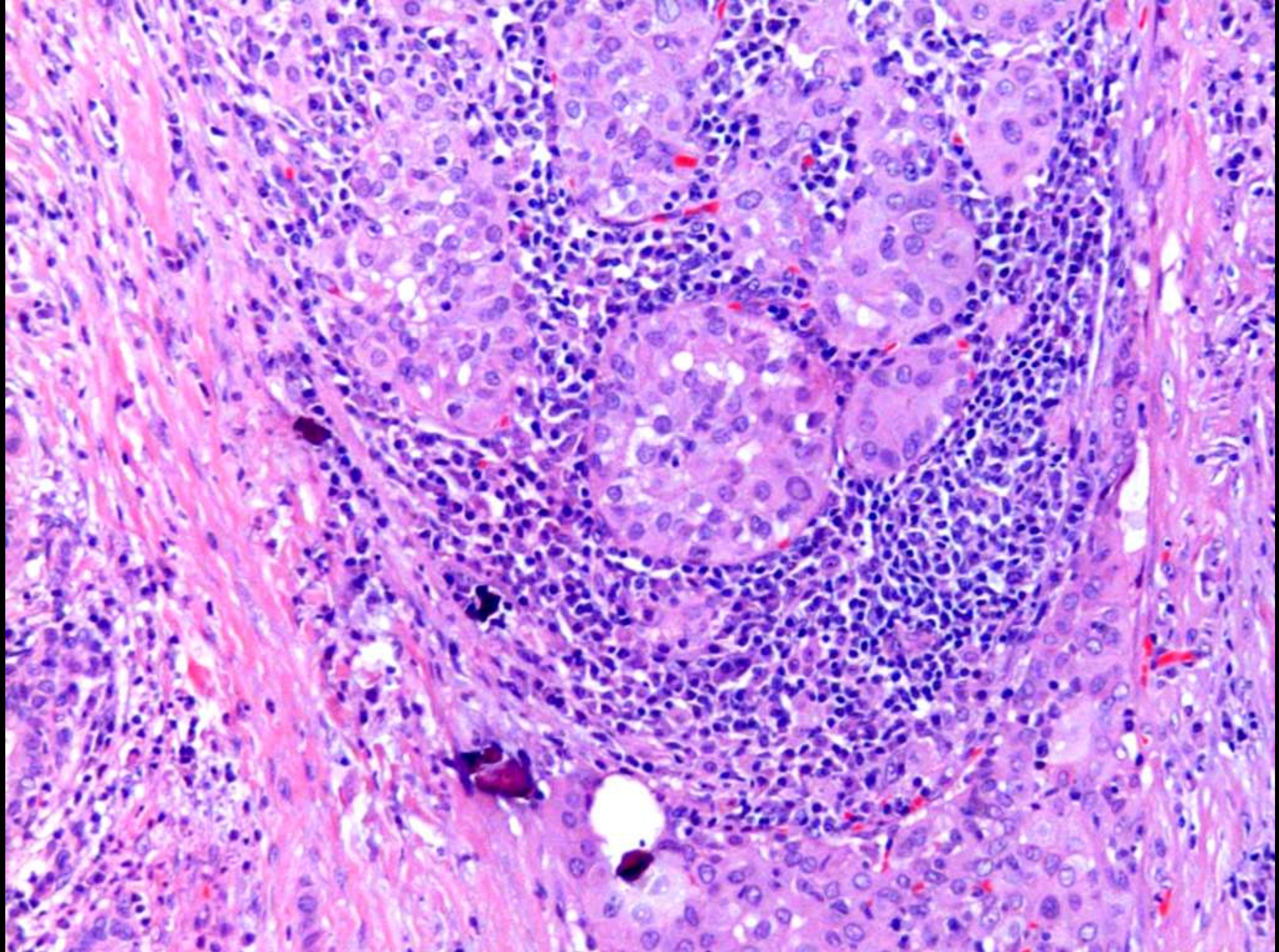


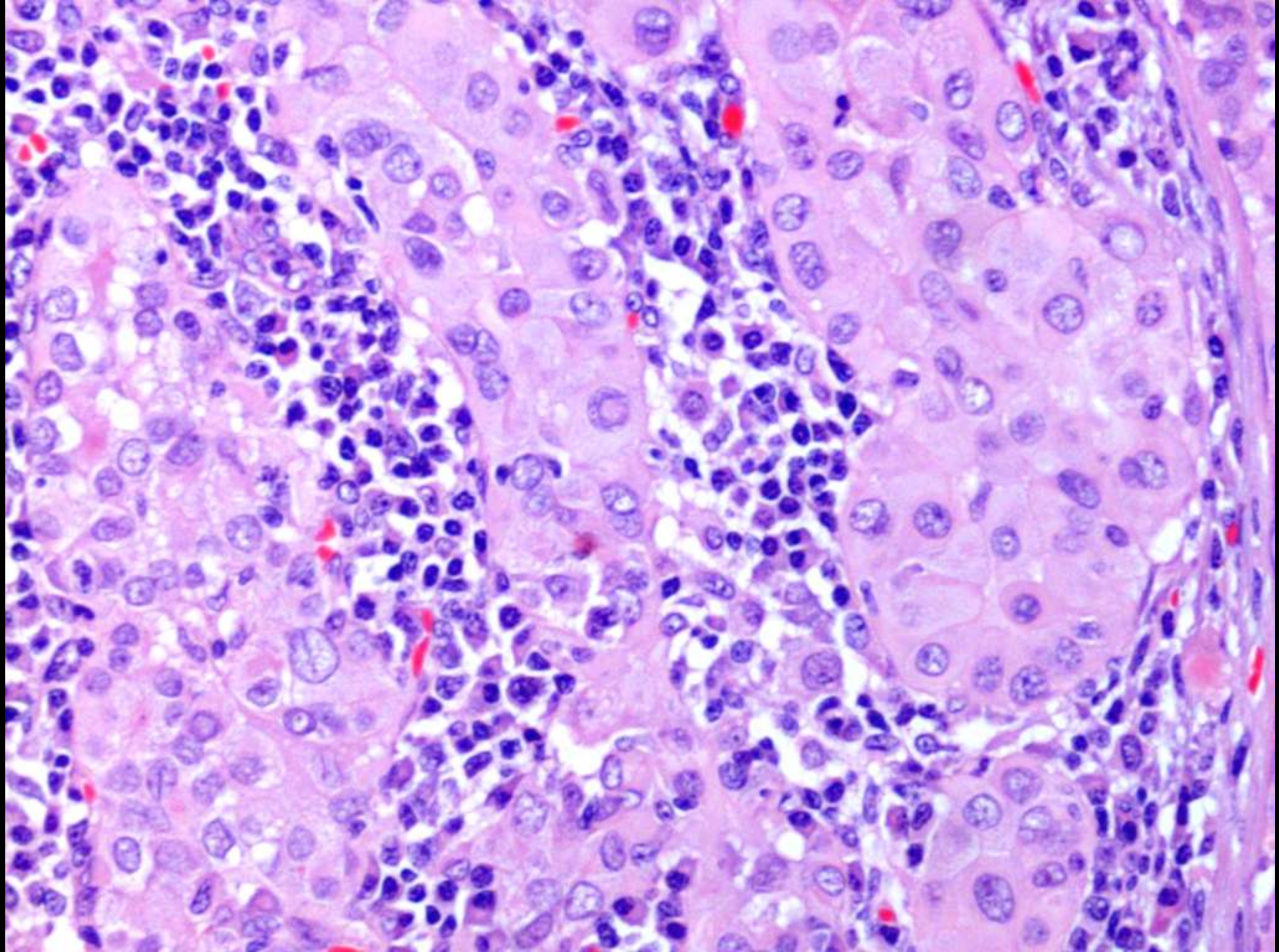


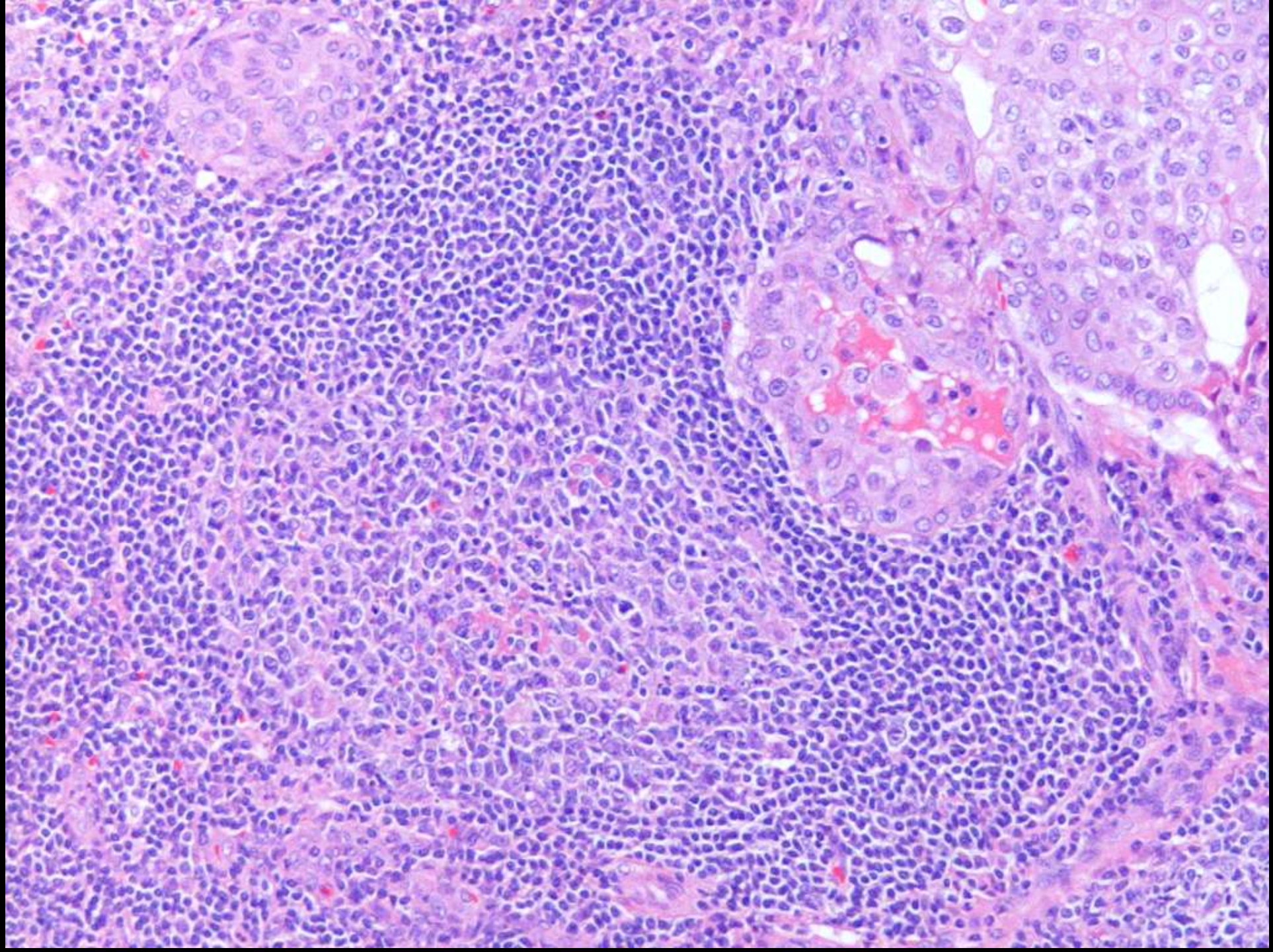


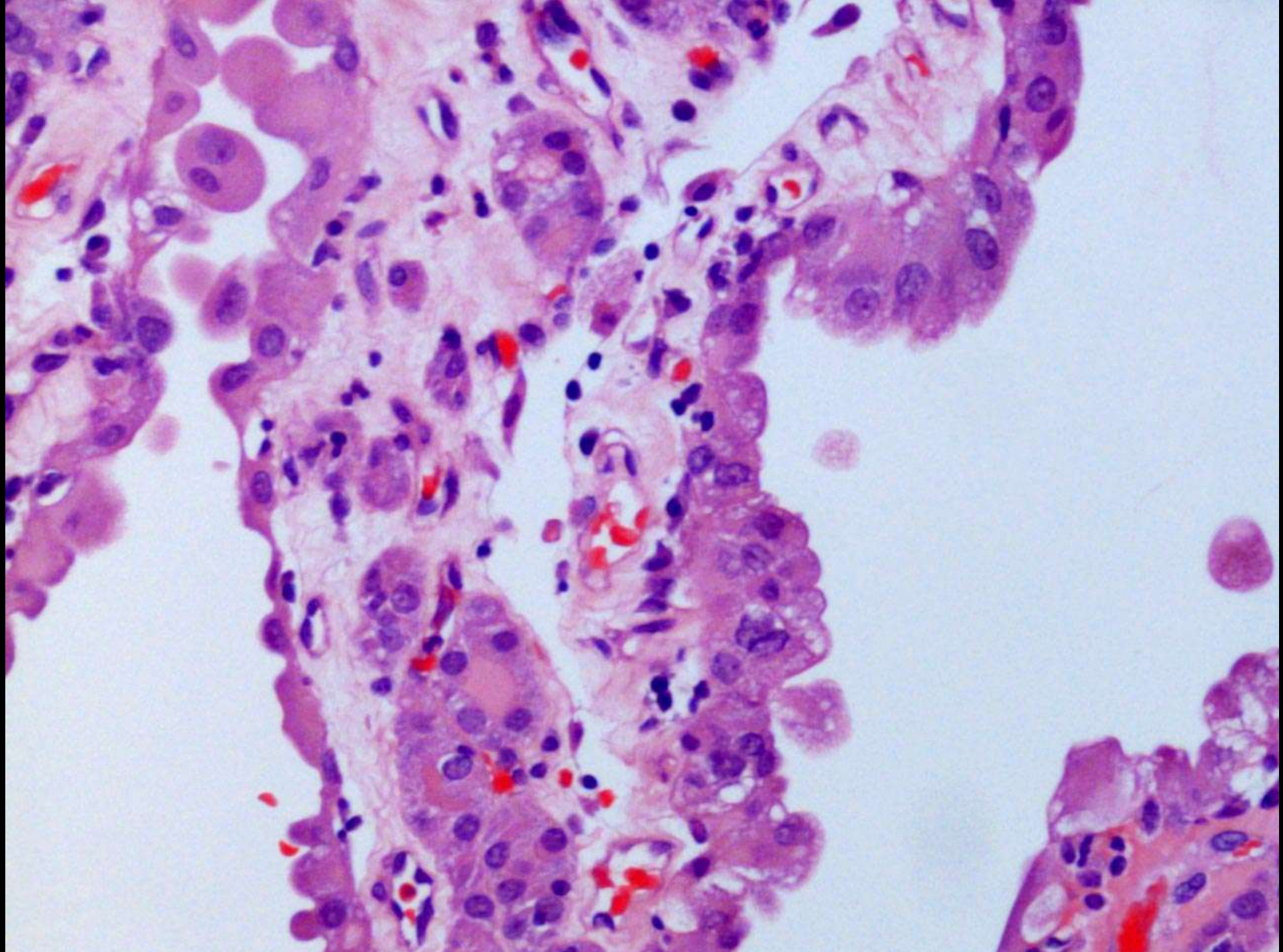


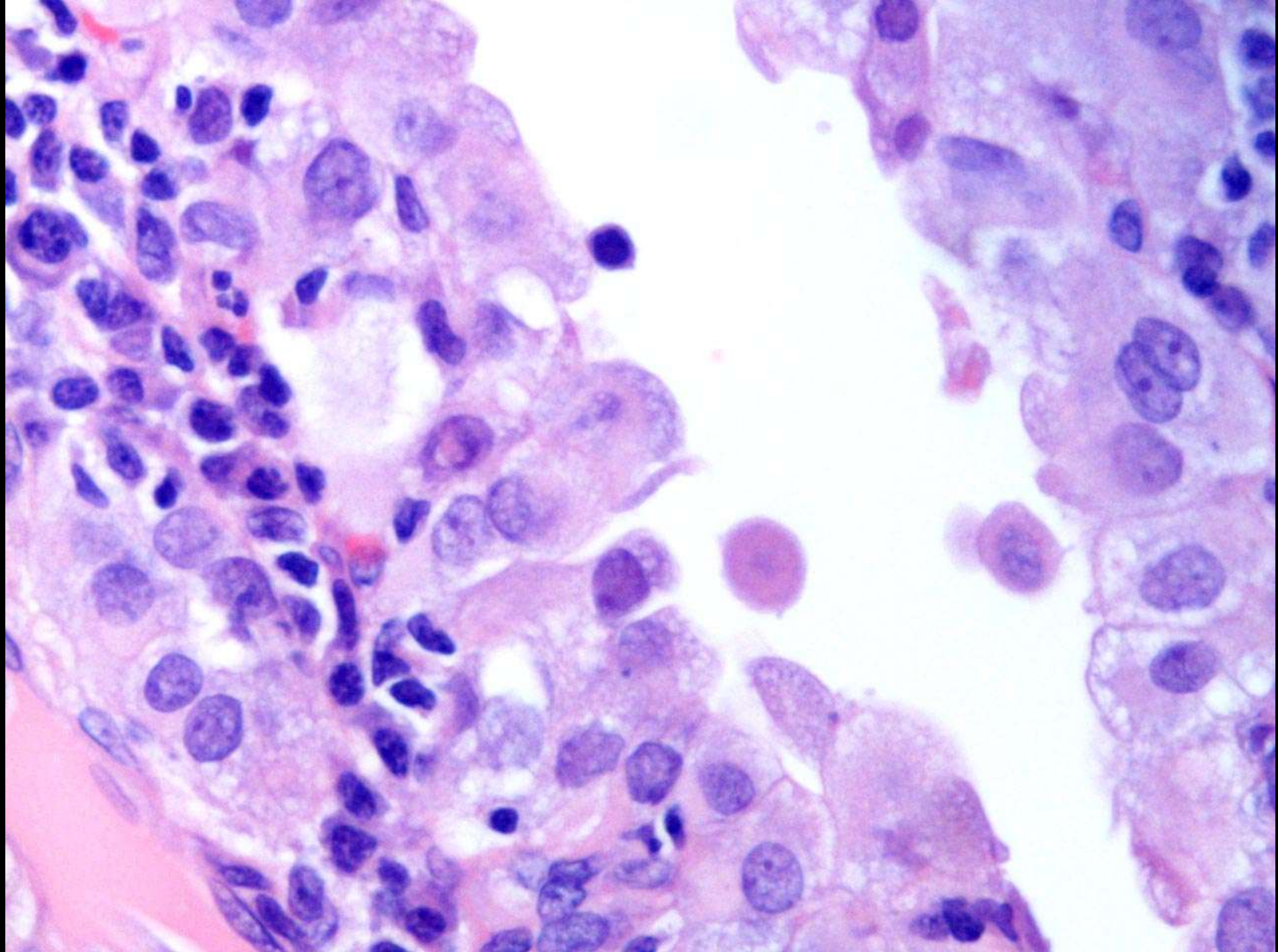












DIAGNÓSTICO ANATOMOPATOLÓGICO:

- **Tiroides:**

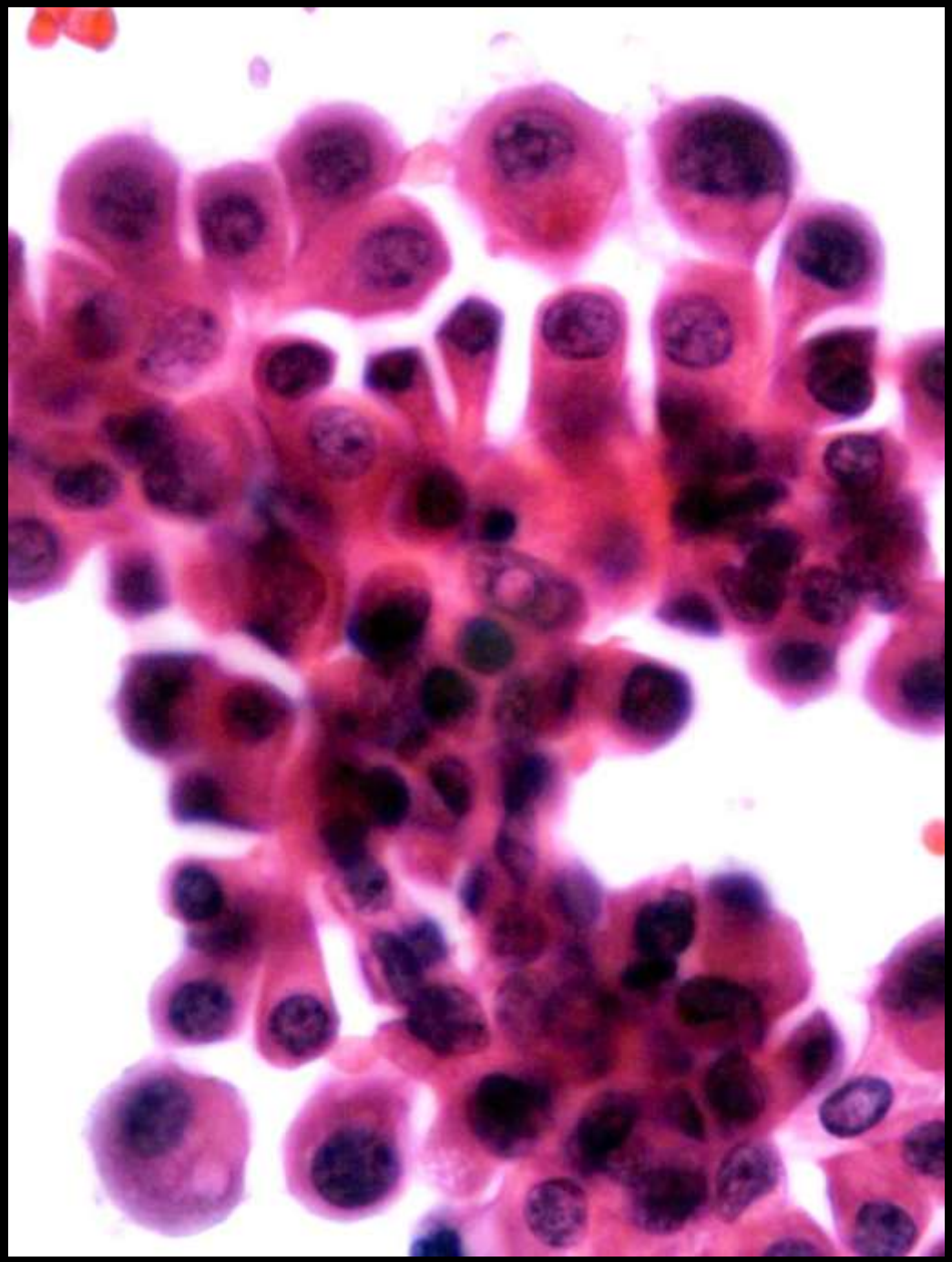
  - Carcinoma papilar de patrón mixto papilar, folicular, con áreas de diferenciación oncocítica, de 1,8 cm. con bordes libres.

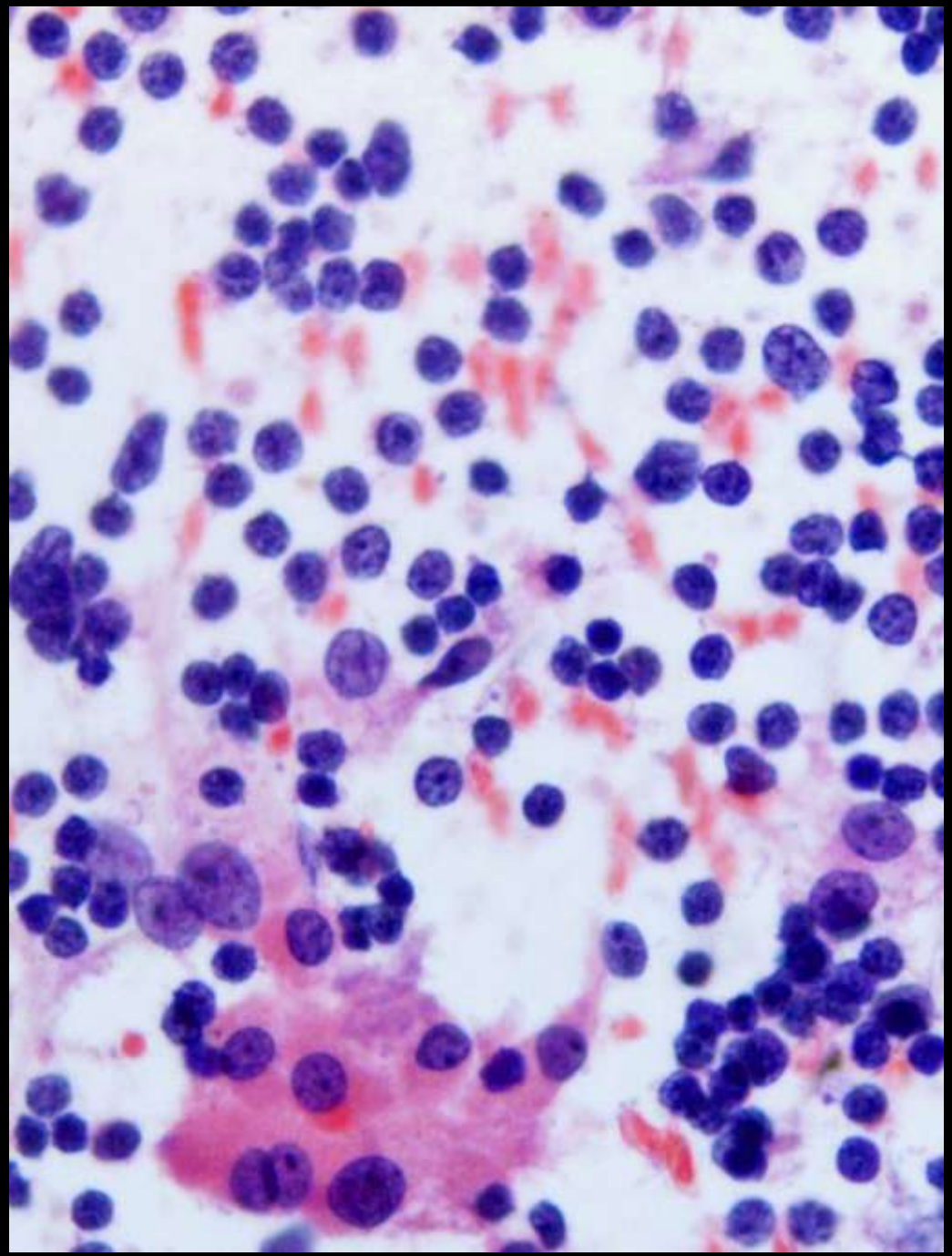
  - Tiroiditis crónica linfocitaria difusa, sugestiva de E. Hashimoto

- Cadena recurrencial derecha: 5 g. linfáticos, linfadenitis rectiva

- Cadena recurrencial izquierda: 2g. Linf. rectivos

- Cadena ganglionar yúgulocarotídea: 21 ganglios linfáticos, linf. reactiva



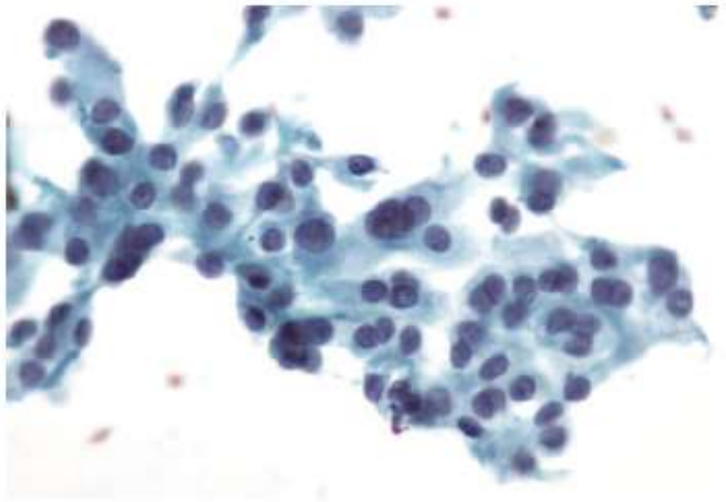


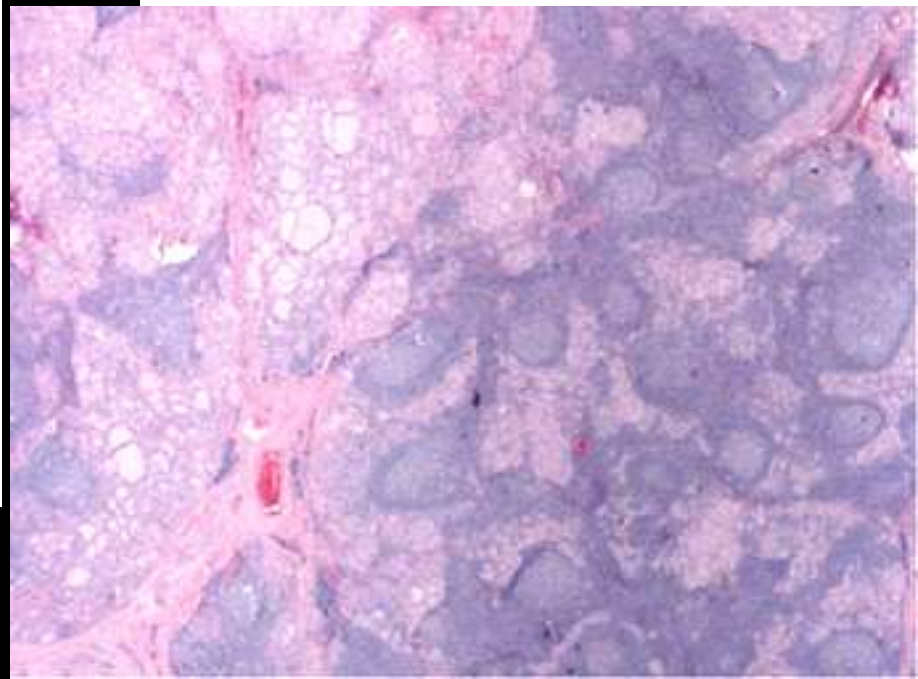
Oncocytic Variant of Papillary Thyroid Carcinoma Associated With Hashimoto's Thyroiditis:

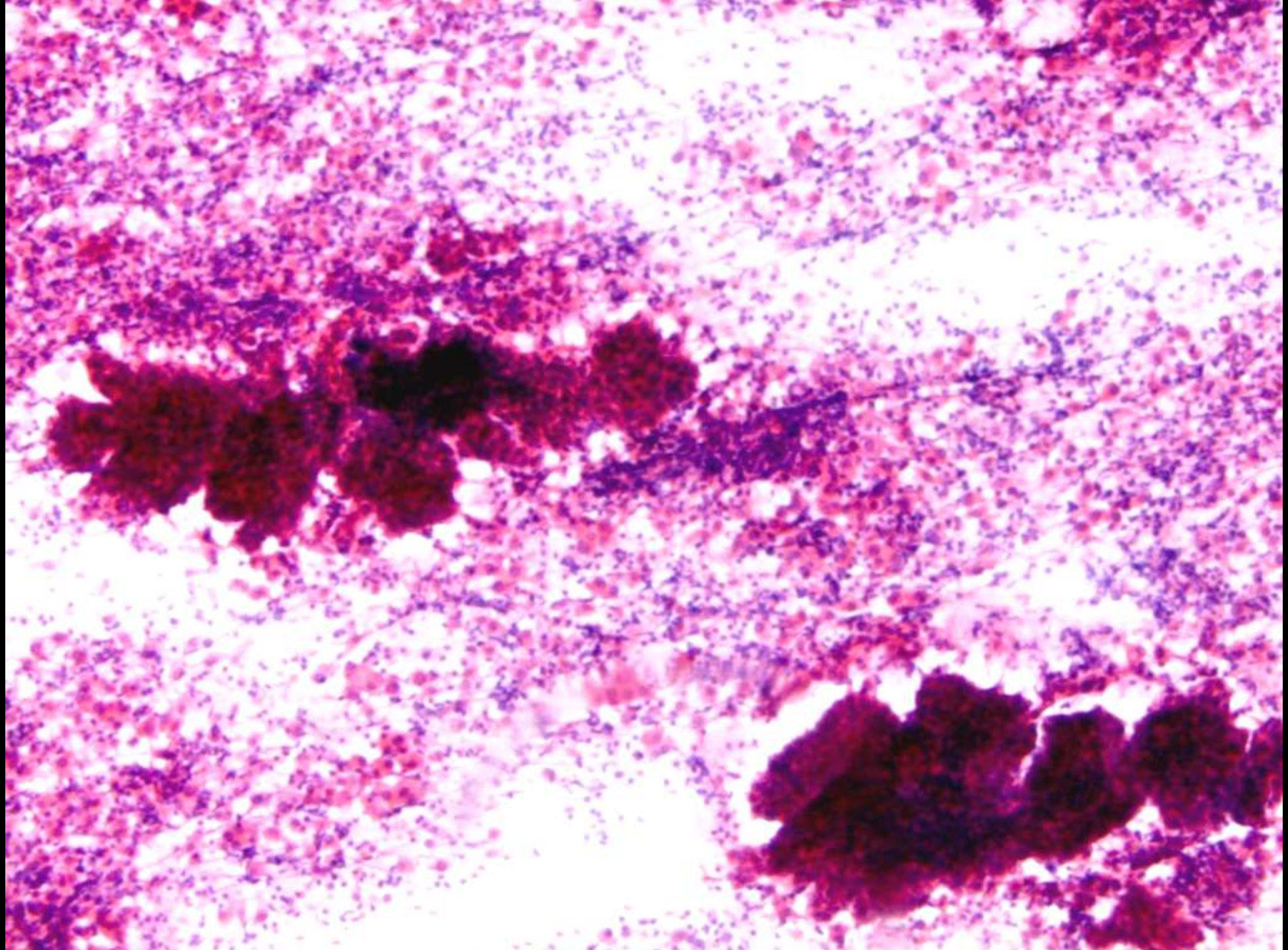
A Case Report and Review of the Literature

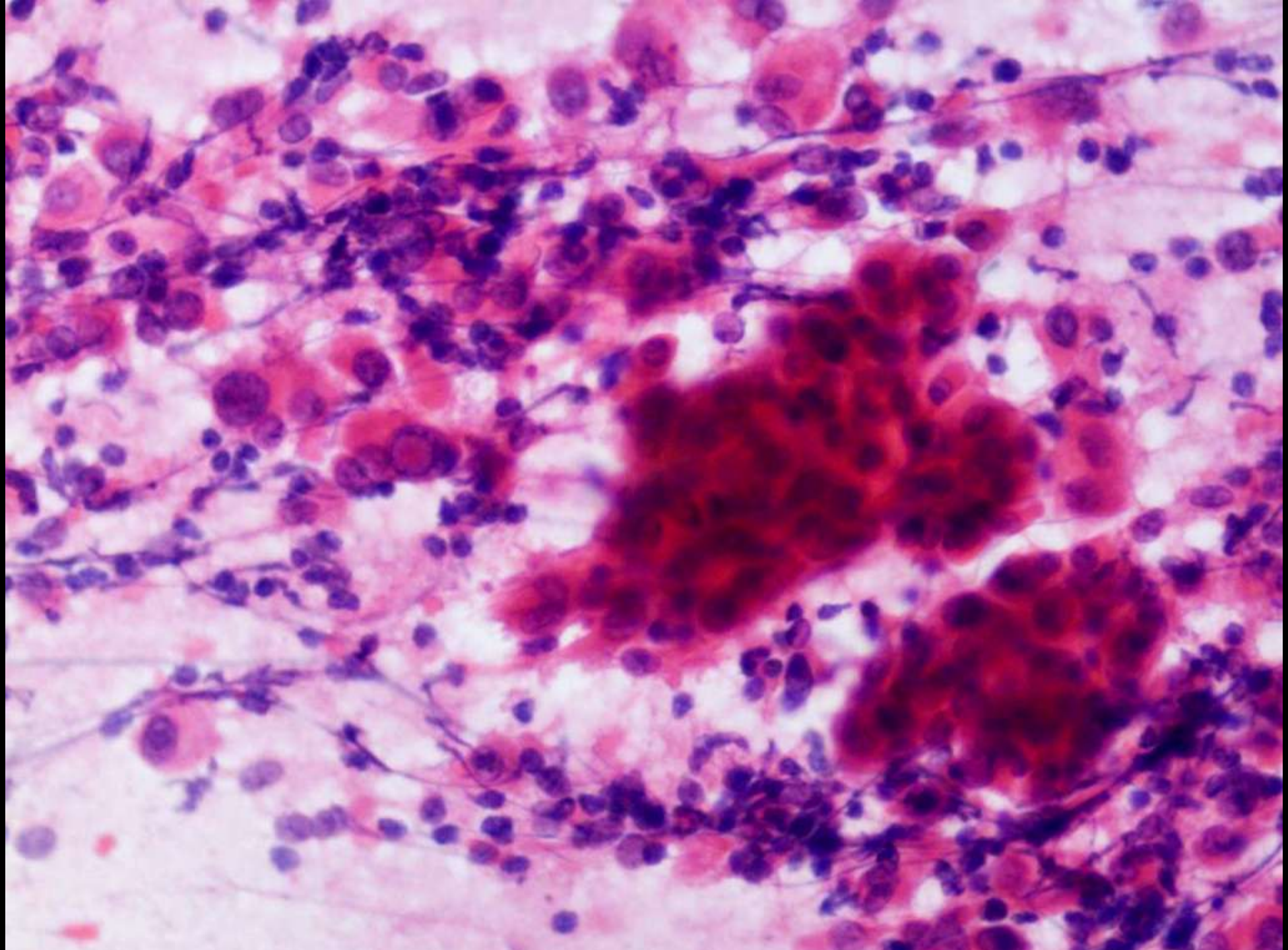
John Lee, M.D. and Farnaz Hasteh, M.D.*

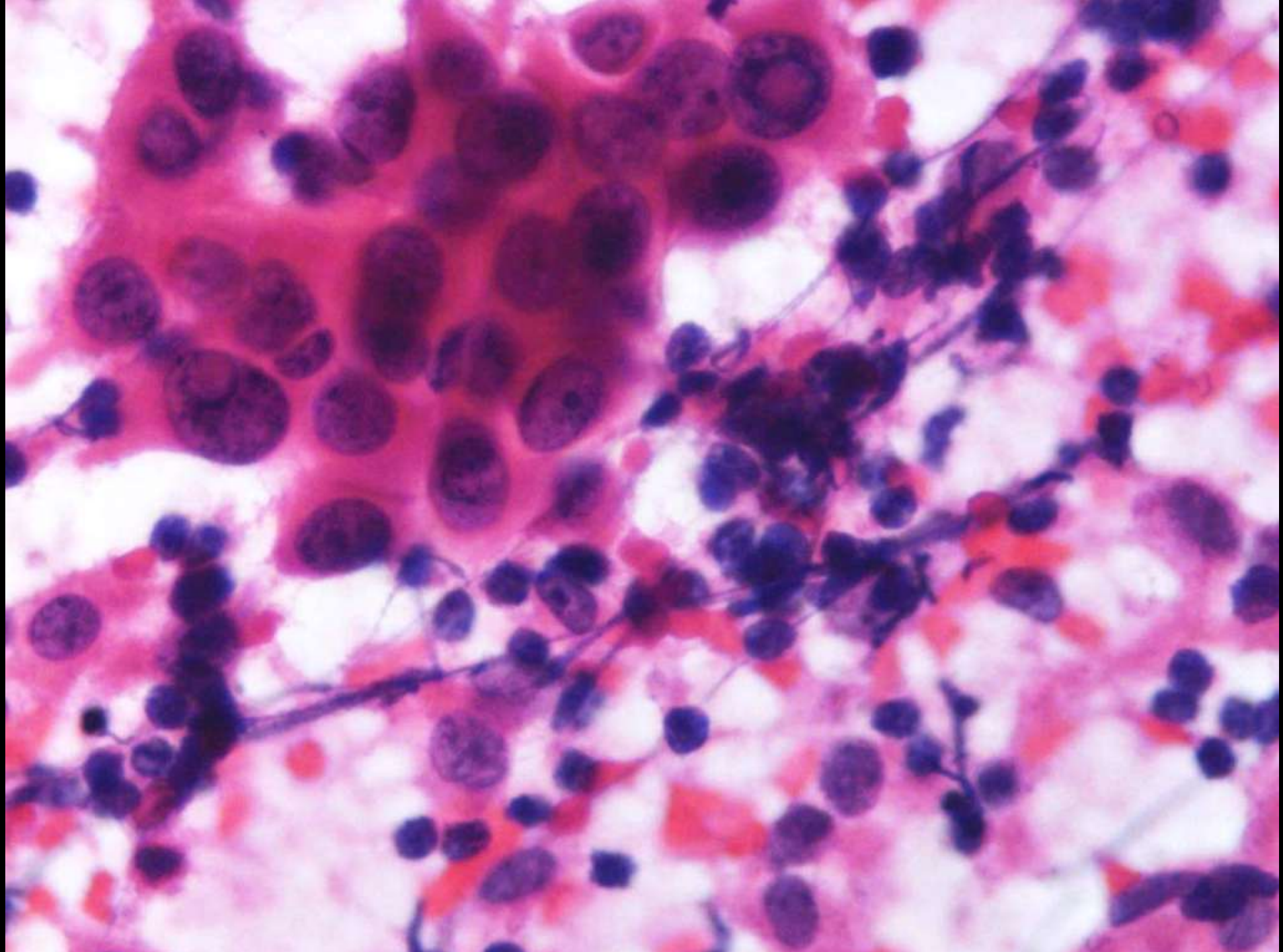
Identification of Hürthle cells on fine-needle aspiration (FNA) of the thyroid leads to a wide differential diagnosis including benign and malignant entities. We report the cytological and histological findings of a patient with an oncocytic variant of papillary thyroid carcinoma (PTC) with concurrent Hashimoto's thyroiditis. FNA revealed a lymphoplasmacytic infiltrate with Hürthle cells demonstrating abnormal chromatin patterns, nuclear enlargement, pleomorphism, intranuclear cytoplasmic invaginations, and foci of papillary aggregates. Because of the degree of nuclear atypia and suspicion for concurrent papillary thyroid carcinoma, a total thyroidectomy was performed revealing a papillary arrangement of Hürthle cells with classic PTC nuclear changes and associated Hashimoto's thyroiditis. This report discusses cytopathological features of a rare variant of PTC (oncocytic subtype) in the background of Hashimoto's thyroiditis. We also briefly discuss the differential diagnosis and diagnostic pitfalls of Hürthle cell lesions, with a review of the literature. Diagn. Cytopathol. 2009;37:600–606.

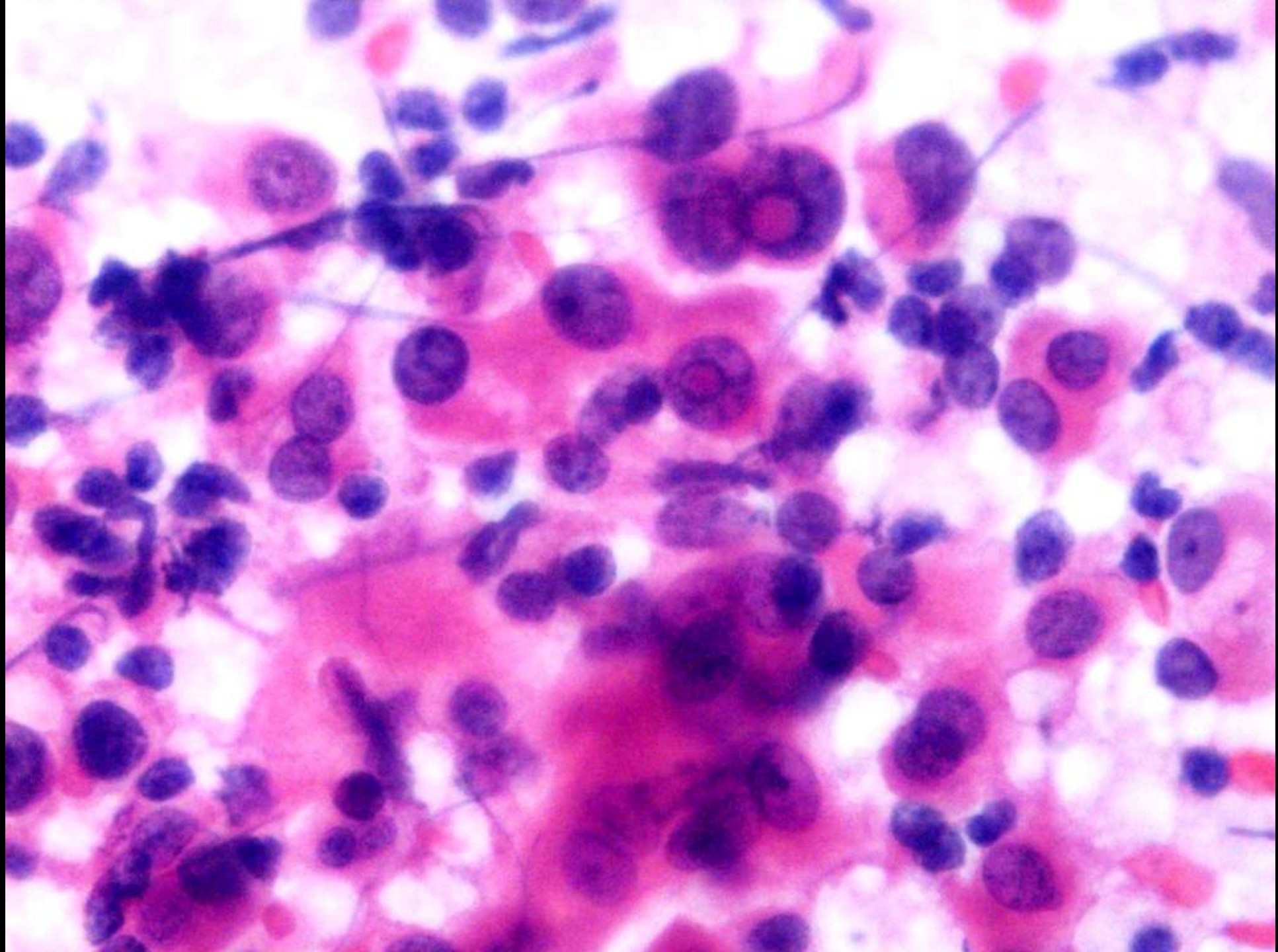


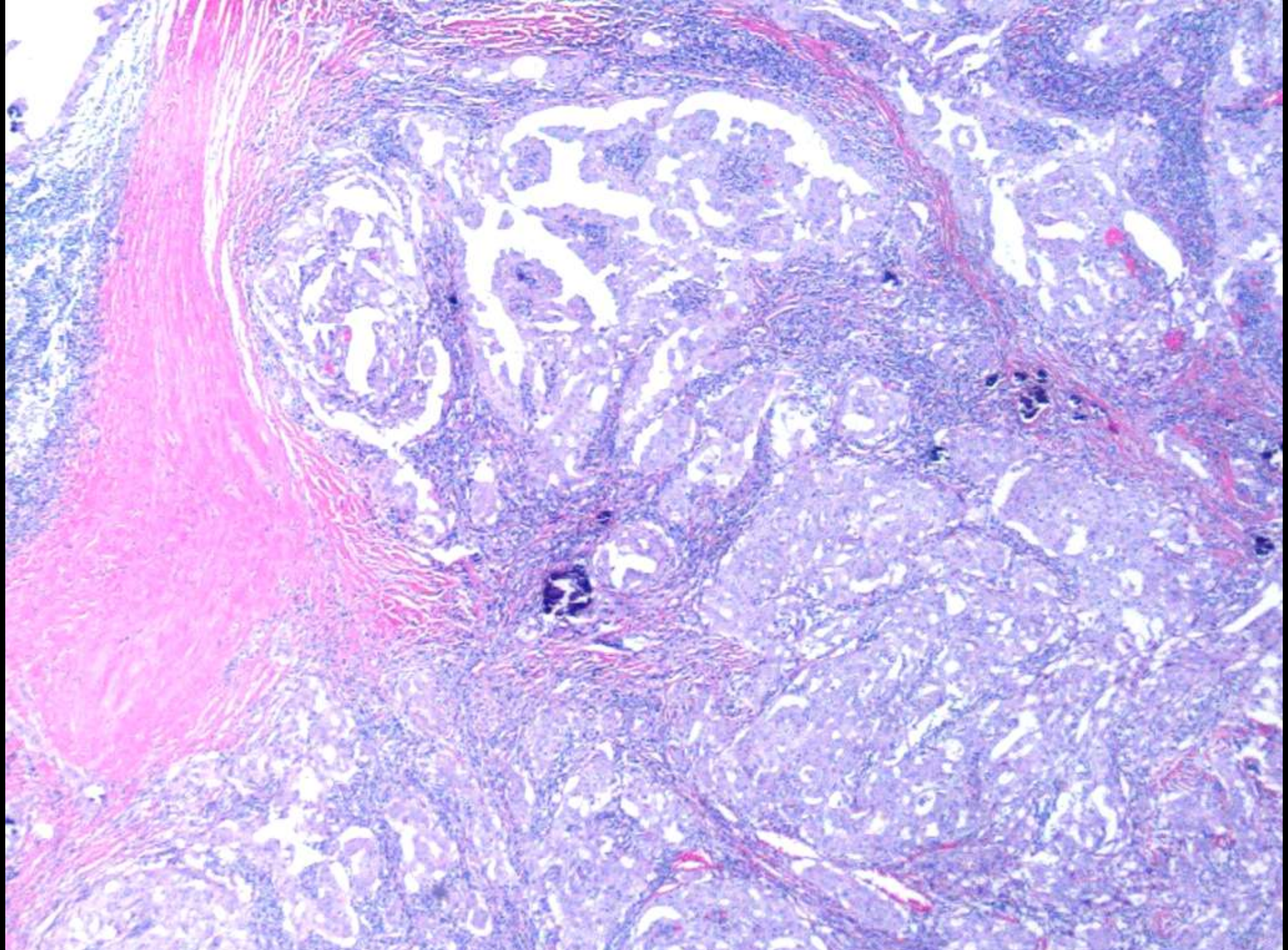


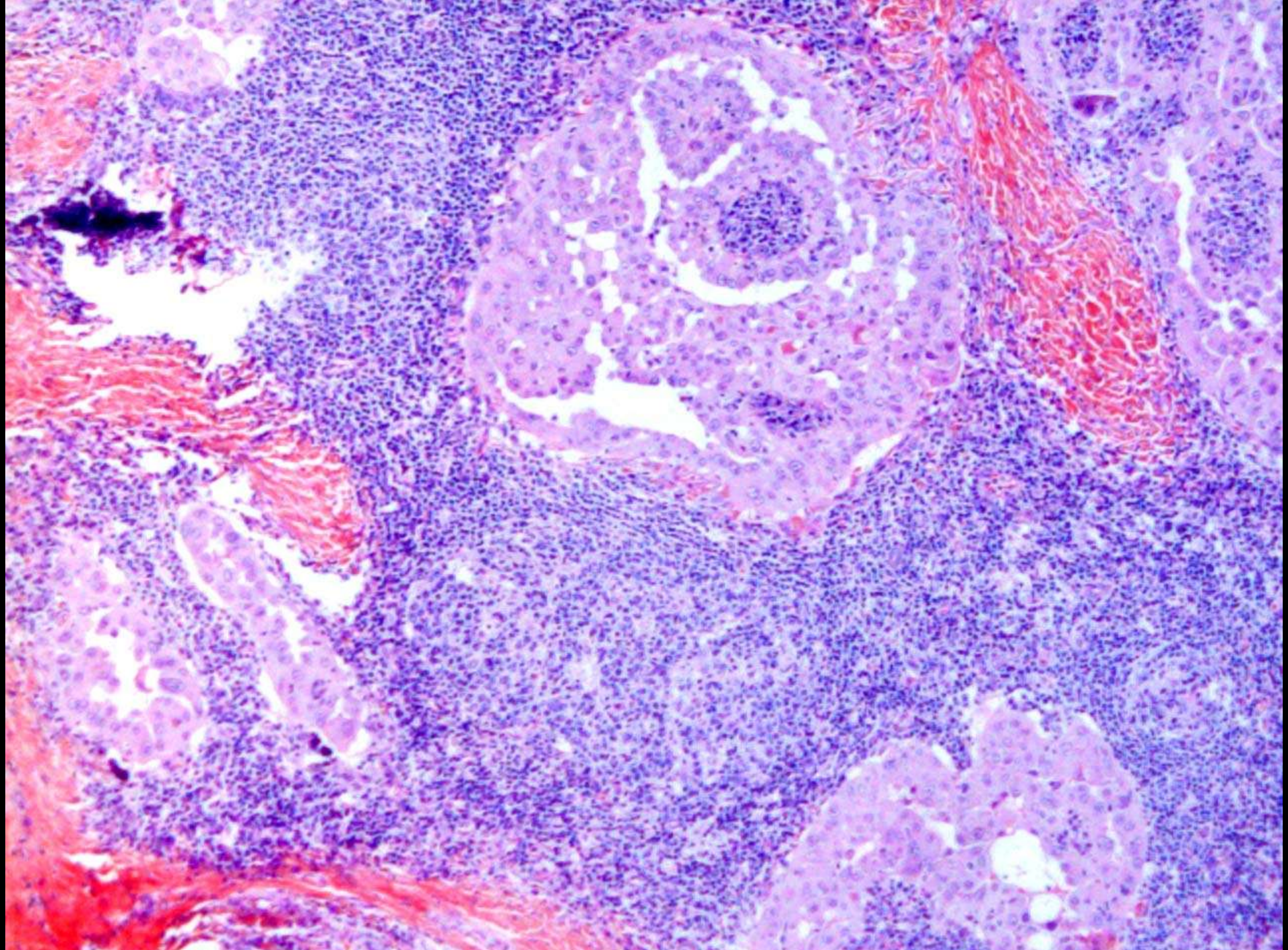


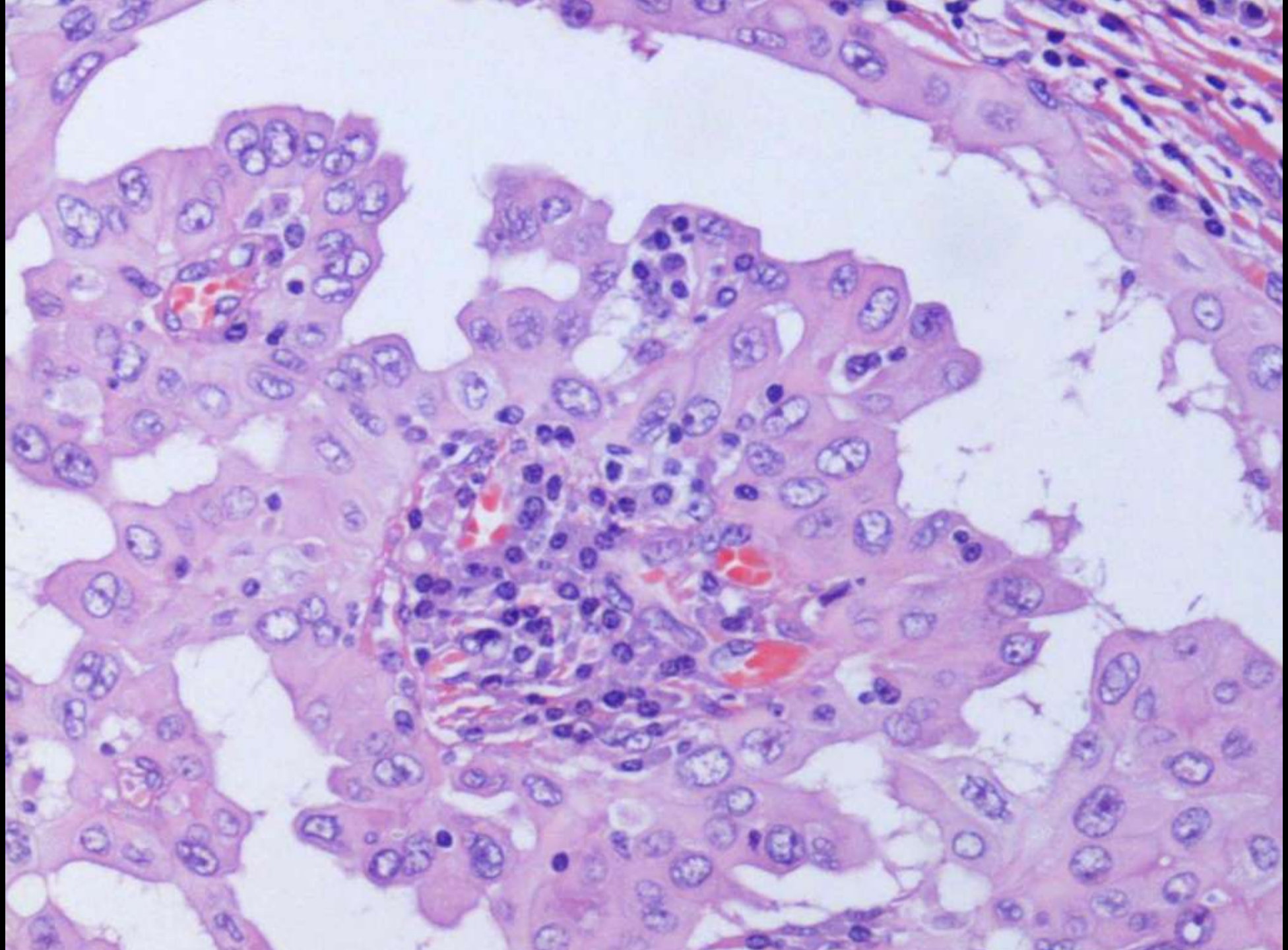


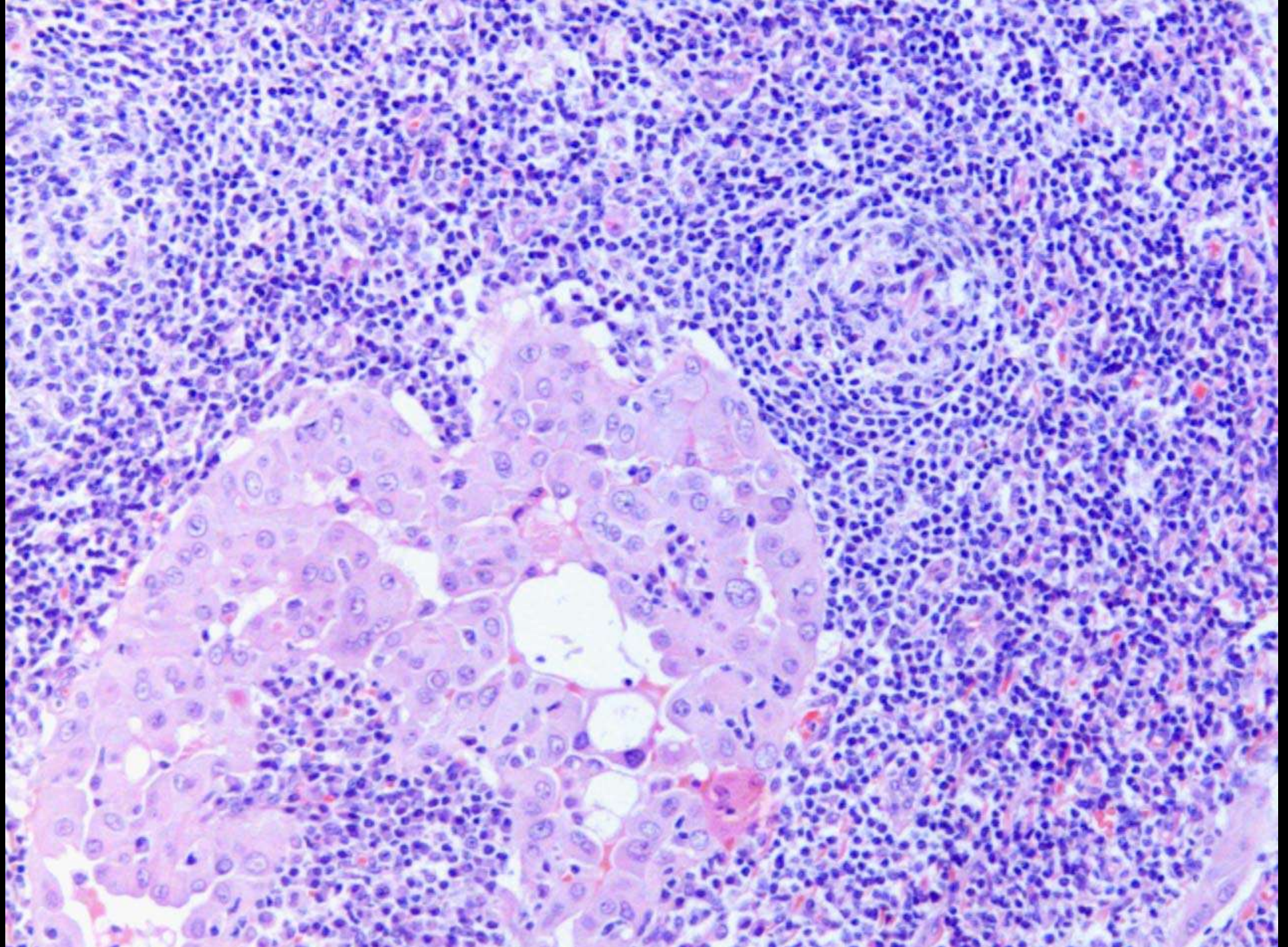


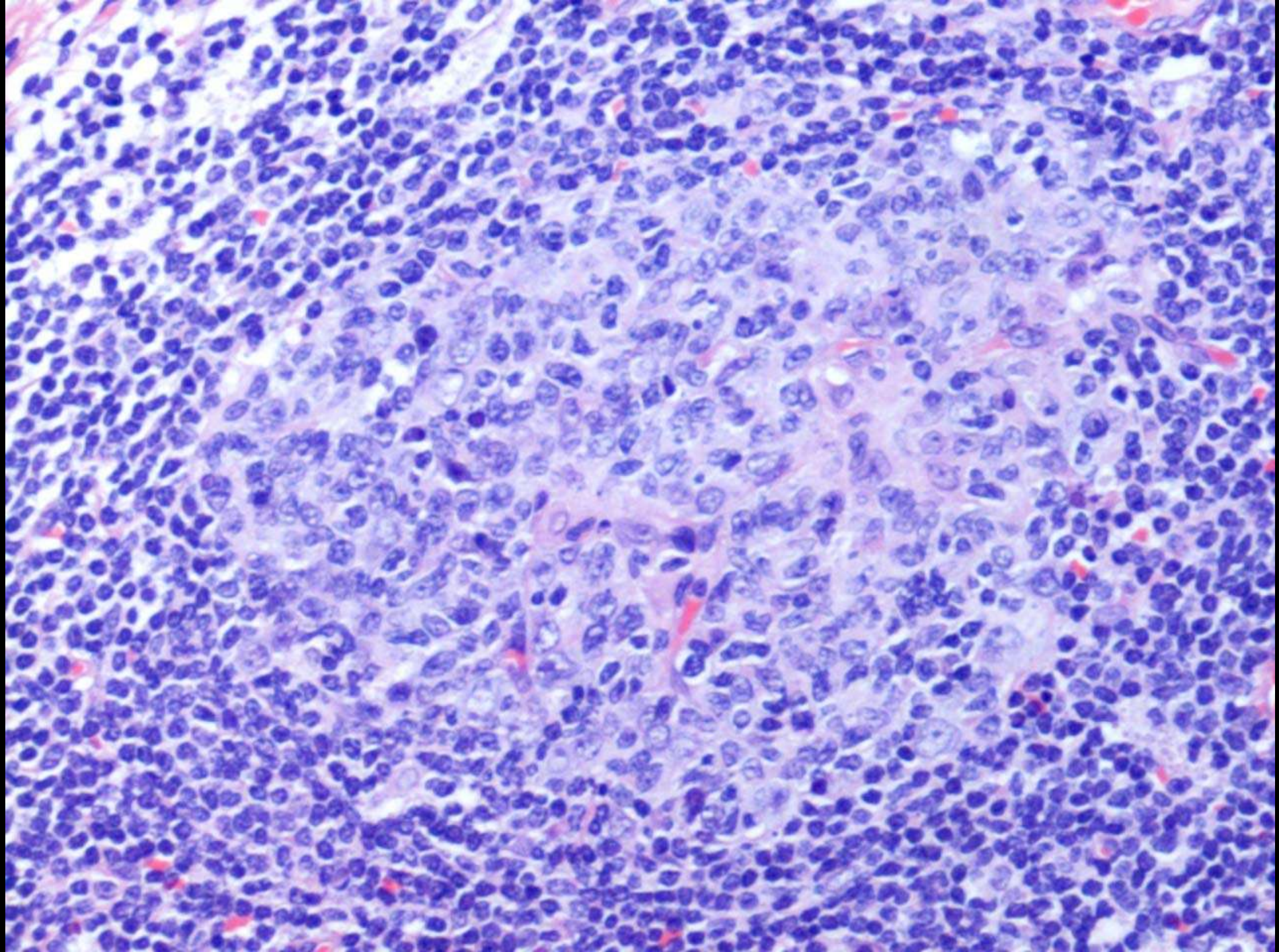












DIAGNÓSTICOS DIFERENCIALES

The Thyroid Hürthle (Oncocytic) Cell and Its Associated Pathologic Conditions

A Surgical Pathology and Cytopathology Review

Kathleen T. Montone, MD; Zubair W. Baloch, MD, PhD; Virginia A. LiVolsi, MD

• *Context.*—Hürthle cells are eosinophilic, follicular-derived cells that are associated with a variety of nonneoplastic and neoplastic thyroid lesions. The differential diagnosis of Hürthle cell lesions is quite broad.

Objective.—To review the pathologic conditions associated with Hürthle cells in the thyroid and to discuss pathology of thyroid lesions associated with oncocytic cytology.

Data Sources.—A variety of thyroid nonneoplastic (autoimmune thyroiditis, multinodular goiter) and neoplastic conditions (Hürthle cell adenoma, Hürthle cell carcinoma) are associated with Hürthle cell cytology. In addition, there are several thyroid neoplasms that should be considered when one observes a Hürthle cell neoplasm in the thyroid (oncocytic variant of medullary carcinoma, several variants of papillary thyroid carcinoma).

Conclusions.—Oncocytic cytology is seen in a variety of thyroid conditions that are associated with a broad differential diagnosis and care must be used for accurate diagnosis. Newer molecular-based techniques may be useful for further classification of thyroid neoplasms with oncocytic pathology.

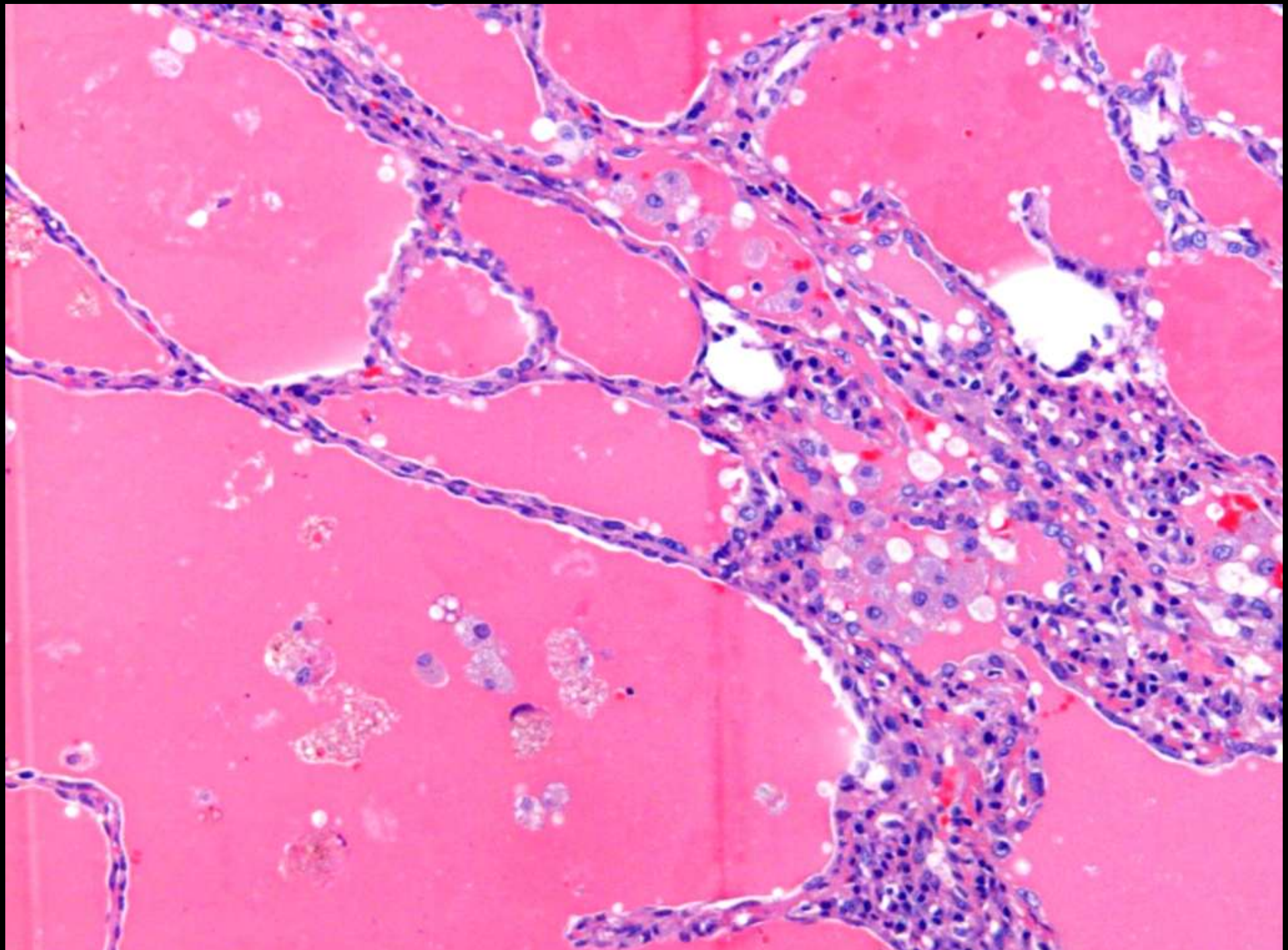
(*Arch Pathol Lab Med.* 2008;132:1241–1250)

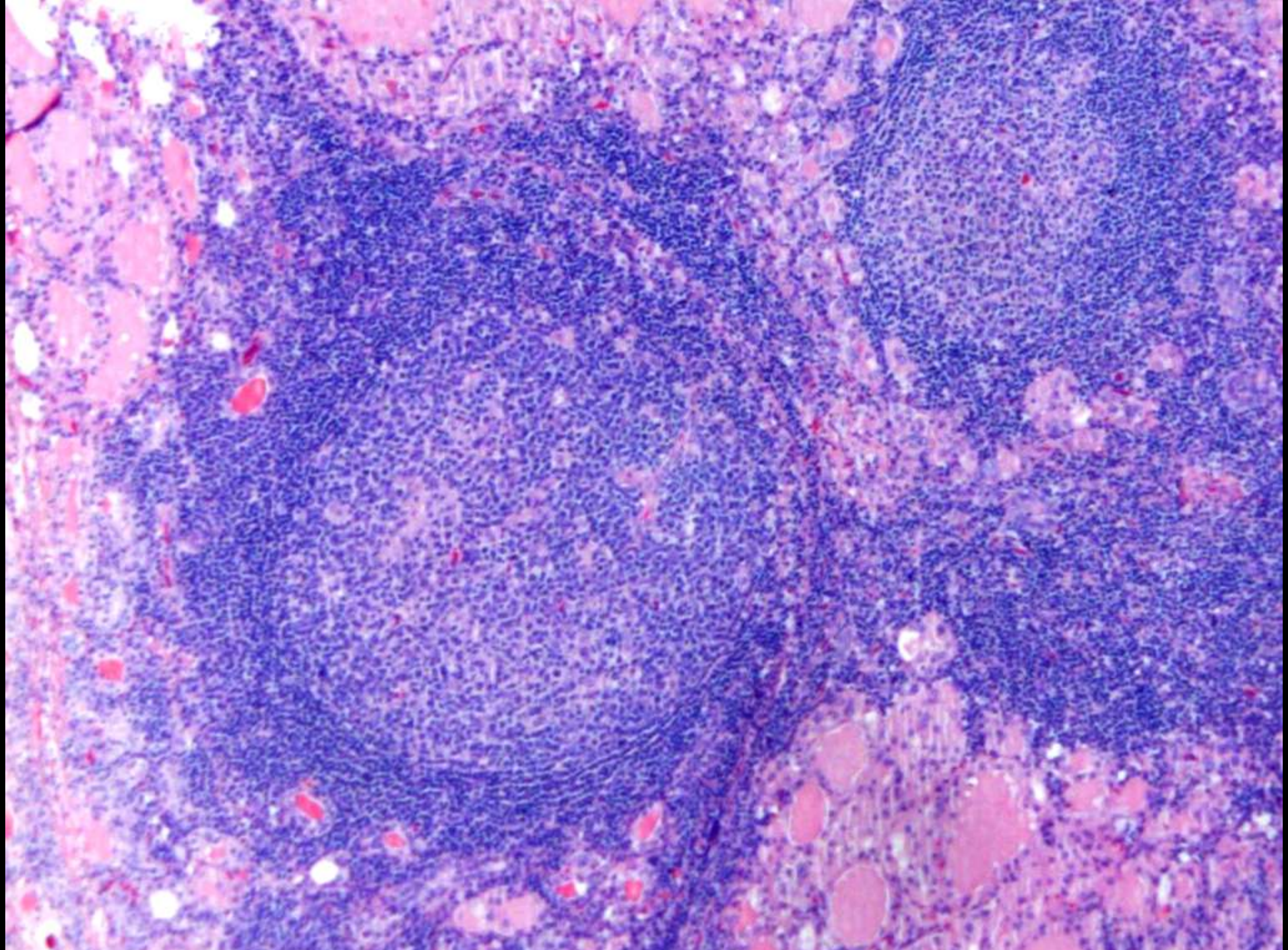
DÓNDE PODEMOS OBSERVAR CÉLULAS DE HÜRTHLE:

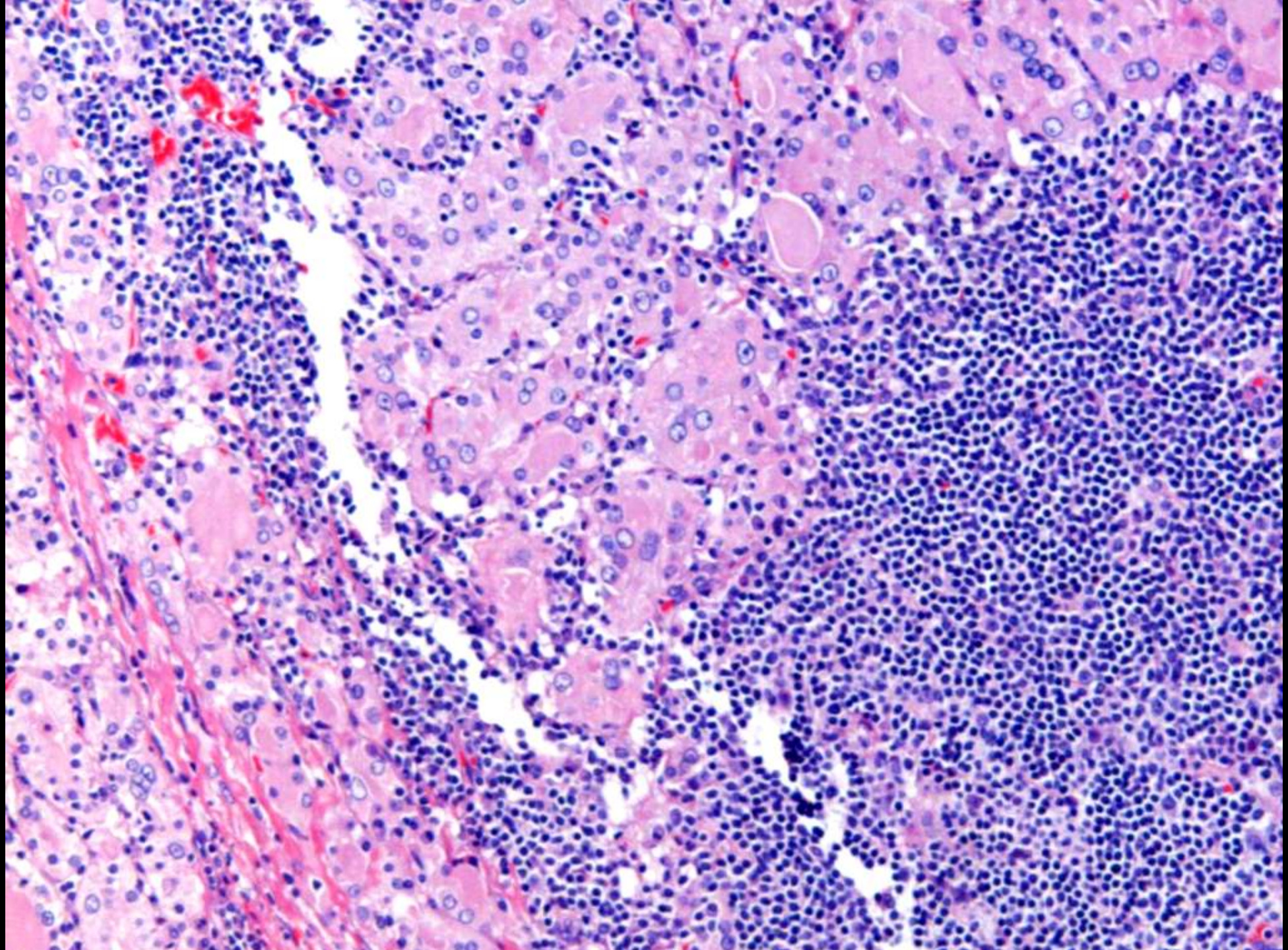
- **BENIGNAS:**
  - Bocio Multinodular
  - Tiroiditis crónica linfocitaria difusa (autoinmune)
  - Tumores benignos (Adenoma de células de Hürthle)
- **TUMORES MALIGNOS:**
  - Carcinoma Papilar, variante oncocítica
  - Carcinoma Papilar de células altas
  - Carcinoma Papilar, variante Warthin-like
  - Carcinoma de células de Hürthle
  - Carcinoma Medular, variante oncocítica

DÓNDE PODEMOS OBSERVAR CÉLULAS DE HÜRTHLE:

- **BENIGNAS:**
  - **Bocio Multinodular**
  - Tiroiditis crónica linfocitaria difusa (autoinmune)
  - Tumores benignos (Adenoma de células de Hürthle)

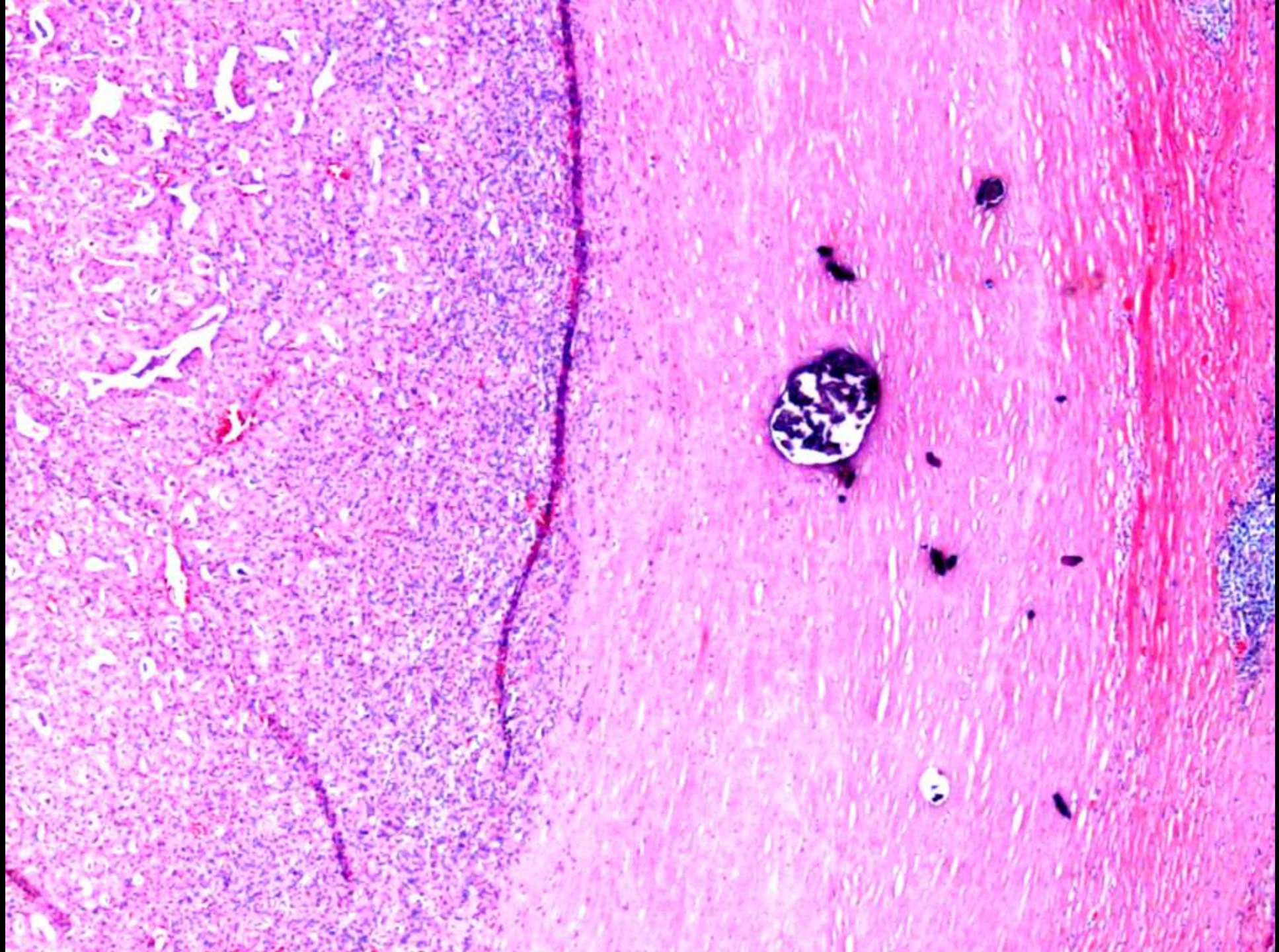


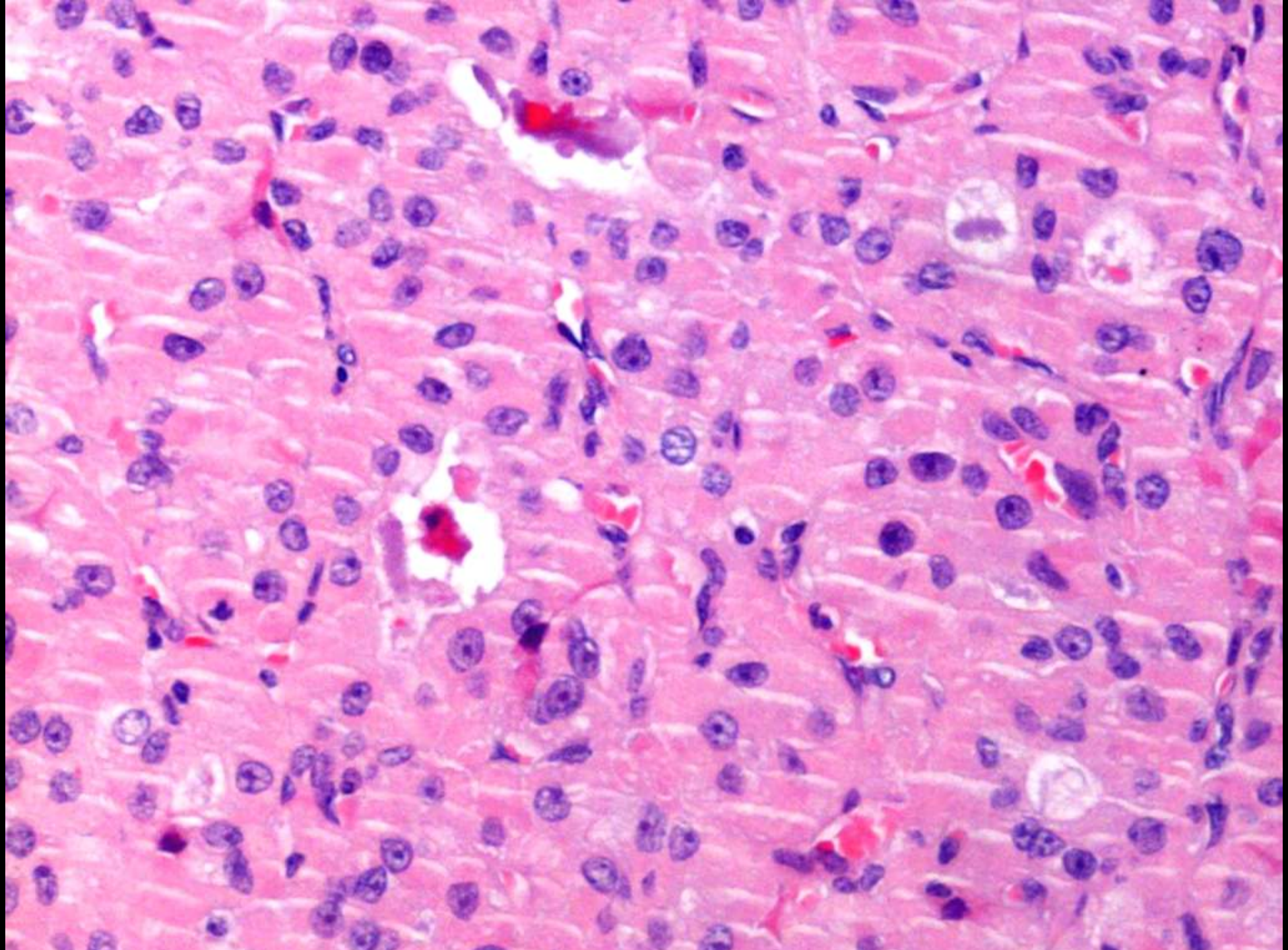


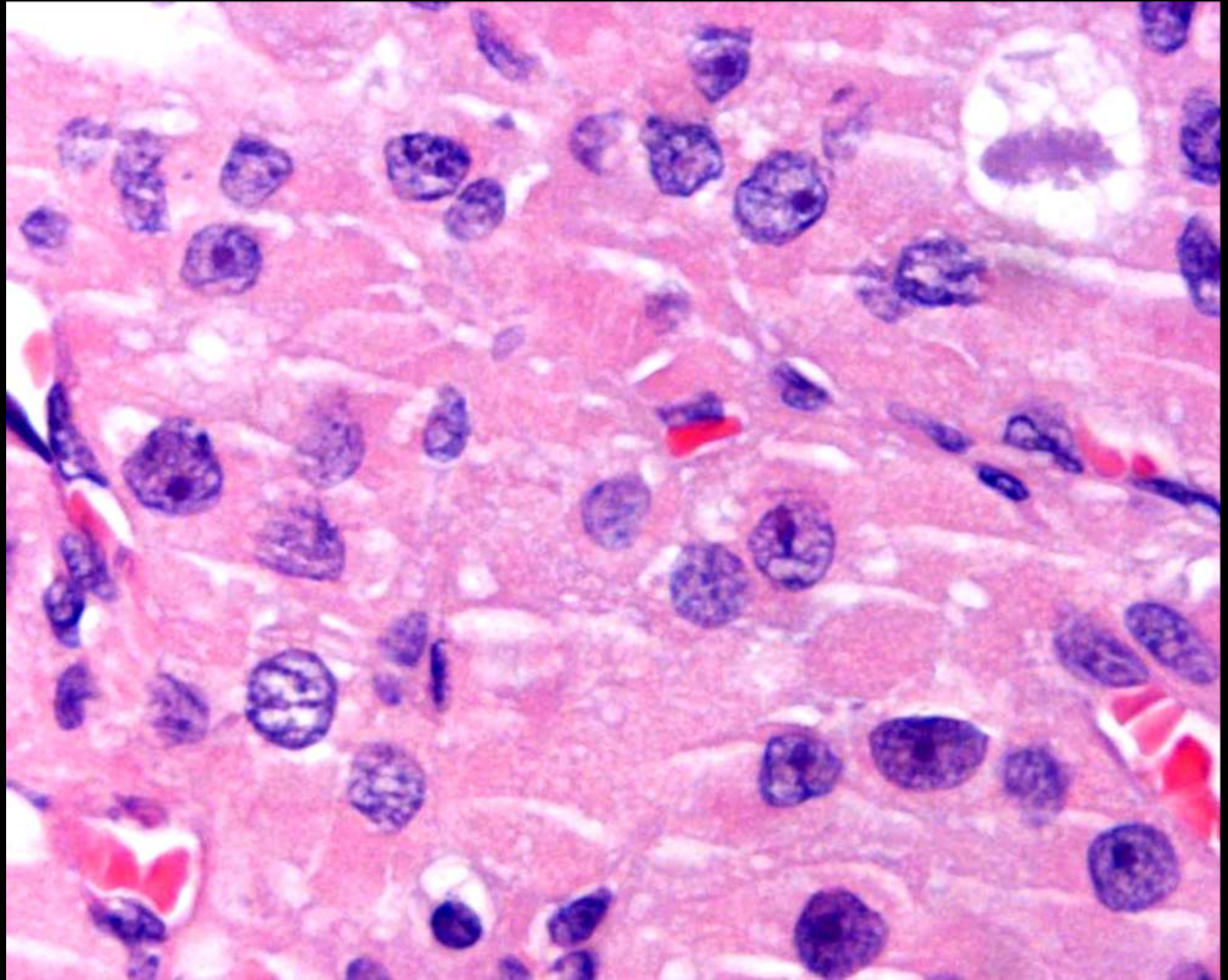


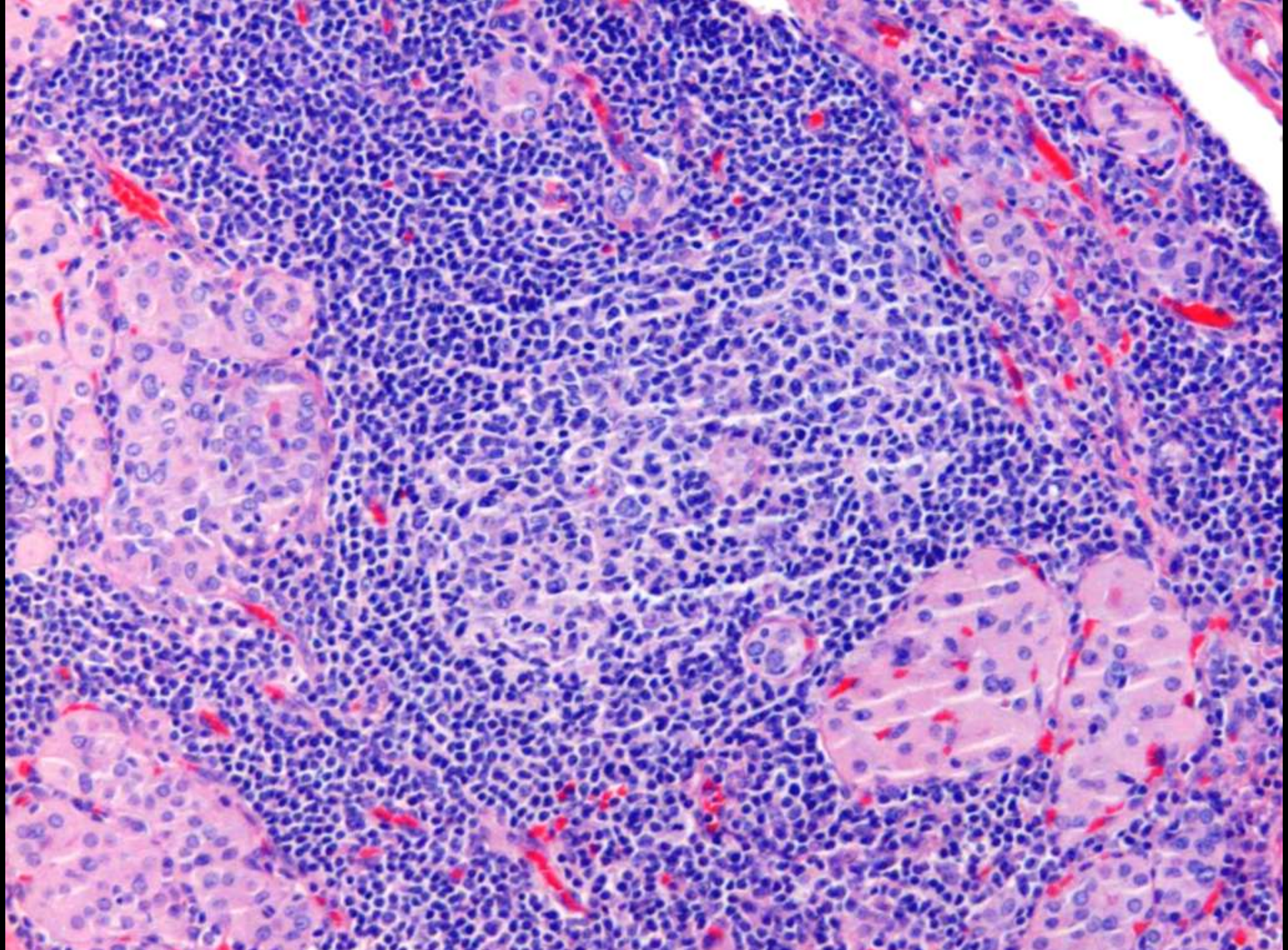
DÓNDE PODEMOS OBSERVAR CÉLULAS DE HÜRTHLE:

- **BENIGNAS:**
  - Bocio Multinodular
  - Tiroiditis crónica linfocitaria difusa (autoinmune)
  - **Tumores benignos (Adenoma de células de Hürthle)**









Diagnostic pitfalls in the evaluation of fine needle aspiration cytology of the thyroid: correlation with histopathology in 260 cases

A. N. Haberal*, S. Toru*, Ö. Özen*, Z. Arat† and B. Bilezikçi*

*Department of Pathology, Başkent University and †Başkent University Medical School, Ankara, Turkey

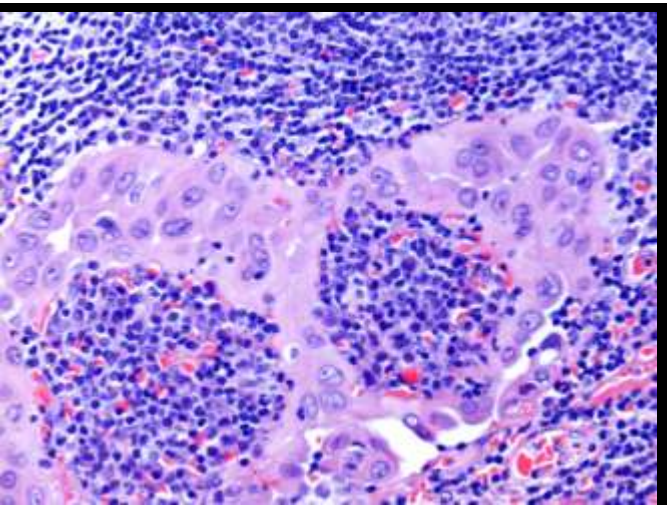
Cytopathology 2009, **20**, 103–108

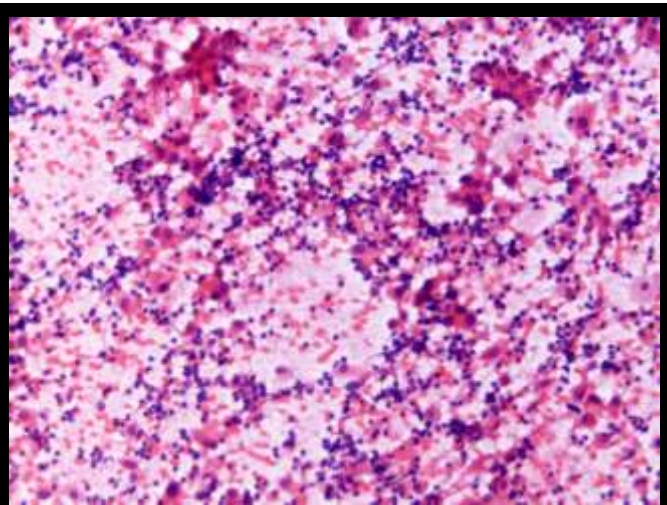
Objectives: Fine needle aspiration cytology (FNAC) of the thyroid is a non-invasive, cost-effective screening procedure that is valuable for distinguishing neoplastic lesions from non-neoplastic nodules. The aim of this study was to determine the diagnostic accuracy of FNACs performed at our institution by correlating FNAC results with histopathological diagnoses.

Methods: Two hundred and seventy-one aspiration cytology specimens followed by thyroidectomy were included in the study, and the results of 260 adequate FNACs were compared with their histological diagnoses.

Results: The sensitivity and specificity of thyroid FNAC for detecting neoplasia were 92.6% and 91.6%, respectively. There were 15 (5.7%) false positives and six (2.3%) false negatives.

Conclusions: The results showed that follicular cells that exhibit some of the features of papillary carcinoma could be observed in a cytology slide of Hashimoto's thyroiditis, leading to a diagnostic pitfall. In addition, cellularity and overlapping cytological criteria in hyperplasia might lead to a false diagnosis.





RASGOS MORFOLÓGICOS CLAVES PARA EL DIAGNÓSTICO DE NEOPLASIAS DE CÉLULAS DE HÜRTHLE.

- Podemos observar una variedad de patrones de crecimiento: macrofolicular, folicular, trabecular, sólido, y psedopapilar.

- Muchos tumores muestran una variedad de estos patrones, siendo el más frecuente el folicular.

- **La neoplasia de células de Hürthle**, tanto las benignas, como las malignas, tienen tendencia a mostrar pseudopapilas (¿por artefactos de fijación y procesamiento?).
- Pueden mostrar calcificaciones distróficas,
  Muy importante: estos psammoma-like o cuerpos pseudopsammoma están presentes dentro del coloide y a menudo no son lamelados.

RASGOS MORFOLÓGICOS CLAVES PARA EL DIAGNÓSTICO DE NEOPLASIAS DE CÉLULAS DE HÜRTHLE.

- Los patrones de expresión molecular de CPT y tiroiditis de Hashimoto muestran similitudes.

- Las alteraciones del inmunofenotipo del CPT y Tiroiditis Hashimoto, que muestran cambios nucleares semejantes a los del CPT: Galectin 3, CITED 1, cytokeratin 19, fibronectina-1 y HBME1, que conocemos son genes alterados en el CPT, mostraban expresión difusa en el 70–100% de los CPT y focalmente expresados en 17–87% de tiroiditis de Hashimoto.

- Estos cambios semejantes a los observados en el CPT, ¿podrían representar transformación premaligna en algunos casos de Tiroiditis de Hashimoto?

RASGOS MORFOLÓGICOS CLAVES PARA EL DIAGNÓSTICO DE NEOPLASIAS DE CÉLULAS DE HÜRTHLE.

- Análisis Moleculares han demostrado diferencias tanto en las alteraciones genéticas como en el pronóstico, entre las diferentes variantes del CPT.

- Abrosimov et al. mostraron elevada expresión citoplásmica de MUC1, en el 100% del de células altas, células columnares, y variante oncocítica de CPT, en el 78% of Warthin-like CPT, 61% del convencional, y 27% de la variante folicular de CPT.

- Trovisco et al. Identificaron mutaciones BRAF (V599E) en el 75% de Warthin-like CPT,55% de oncocitica CPT, 53% de convencional PTC, y 0% de la variante folicular de CPT.

CONCLUSIONES

1- La PAAF es una técnica segura y sensible para realizar screening de pacientes con nódulos tiroideos, identificando nódulos neoplásicos para su extirpación quirúrgica.

2- La Sensibilidad varía 65% al 98%, y la Especificidad del 73%-100%.

3.- FN (2-7%)

4- FP (0-9%):

- La PAAF es Sensible para identificar:
  - Carcinomas papilar, medular, folicular pobremente diferenciado y anaplásico.
- Tiene Limitaciones en el diagnóstico de:
  - Lesiones foliculares: nódulos adenomatoides hiperplásicos en bocio, adenomas foliculares, carcinomas foliculares bien diferenciados y folicular variante de CP.
  - Lesiones de células de Hürthle: Nódulo hiperplásico de células de Hürthle en Tiroiditis de Hashimoto o en bocio coloide multinodular y en neoplasias de células de Hürthle.

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