TOTAL THYROIDECTOMY

1. A total thyroidectomy specimen weighing X g is received, consisting of a left lobe measuring XXX cm, a right lobe measuring XXX cm, and an isthmus measuring XXX cm.
2. Externally, the specimen shows no remarkable features // demonstrates a multinodular / nodular / irregular appearance, with a smooth / disrupted surface / with attached fragments of skeletal muscle tissue.
3. The external surface of the specimen is inked with India ink.
4. On sectioning, the parenchyma is tan-brown without other remarkable features // the right / left lobe demonstrates a dominant nodule measuring XXX cm, encapsulated / non-encapsulated, located X cm from the inked margin // the cut surface demonstrates lesions ranging from X to X cm, showing X characteristics and located respectively X cm from the nearest margin.
5. The lesions show a solid / cystic cut surface, with a homogeneous / heterogeneous / colloid / haemorrhagic / calcified / brownish appearance, etc.
6. Representative sections are submitted.

1st Example (Thyroidectomy for multinodular goitre)

- A1 - A3: sections from the left lobe.
- A4: section from the isthmus.
- A5 - A7: sections from the right lobe.

2nd Example (Thyroidectomy for follicular adenoma)

- A1: superior margin, perpendicular (“cross-shaped”).
- A2: inferior margin, perpendicular (“cross-shaped”).
- A3 - A6: two complete sections of the lesion.
- A7 - A15: entirely submitted capsule.
- A16: section from the isthmus.
- A17 - A19: representative sections from the left lobe.

3rd Example (Thyroidectomy for anaplastic carcinoma)

- A1: superior margin, perpendicular (“cross-shaped”).
- A2: inferior margin, perpendicular (“cross-shaped”).
- A3 - A9: one complete section of the lesion.
- A10 - A14: additional sections in relation to the margin.
- A15: section from the isthmus.
- A16: sections from the right lobe.

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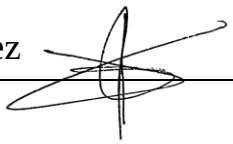

TO CONSIDER

– Total thyroidectomy specimens (right lobe + isthmus + left lobe) may be performed for a variety of benign neoplastic conditions (follicular adenoma or multinodular goitre) or malignant neoplasms (follicular, papillary, medullary, or anaplastic carcinoma).
– Due to the implications for specimen dissection, review of the clinical history and imaging studies is recommended to determine lesion location, multifocality, and the presumed diagnosis (often cytological).
– Weigh, orient, measure, and describe the external surface of the specimen.
– Ink the specimen and serially section transversely. Some authors recommend using different ink colours for each lobe or for the anterior / posterior margins.
– Identify and measure the different lesions.
– Describe the cut surface of the lesions. It is important to assess whether lesions are encapsulated, as capsular invasion is the defining criterion of malignancy in follicular-patterned lesions.
– Submit representative sections:

- In non-neoplastic specimens and / or in the absence of well-defined lesions, represent all three lobes (approximately 7 sections). Some specialists recommend submitting one section per centimetre of the specimen in multinodular goitres.
- If dominant nodules are identified, submit at least one section per centimetre of the greatest dimension of the lesion, in addition to documenting its relationship to all surgical margins.
- If several well-defined lesions are present, measure the distance to margins and submit those with the largest size / features most suspicious for malignancy.
- If a capsule is present, it should be entirely submitted in relation to the resection margins. Submission of the entire lesion is not required (see image).
- If the patient has a diagnosis of MEN syndrome, consideration should be given to complete submission of the specimen. If there is a previously known medullary carcinoma, submit sections from the superior and inferior poles to assess for “C”-cell hyperplasia.

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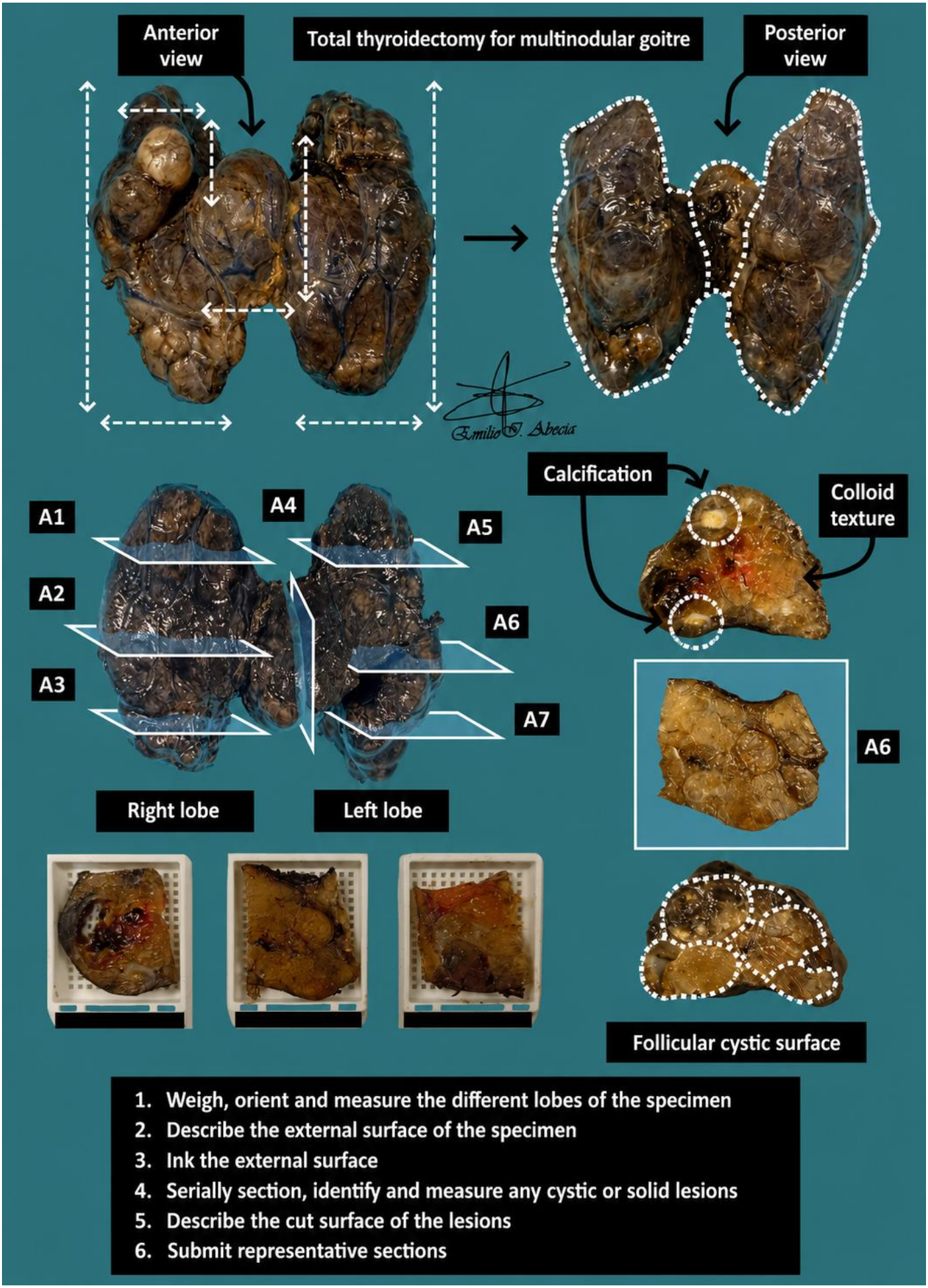

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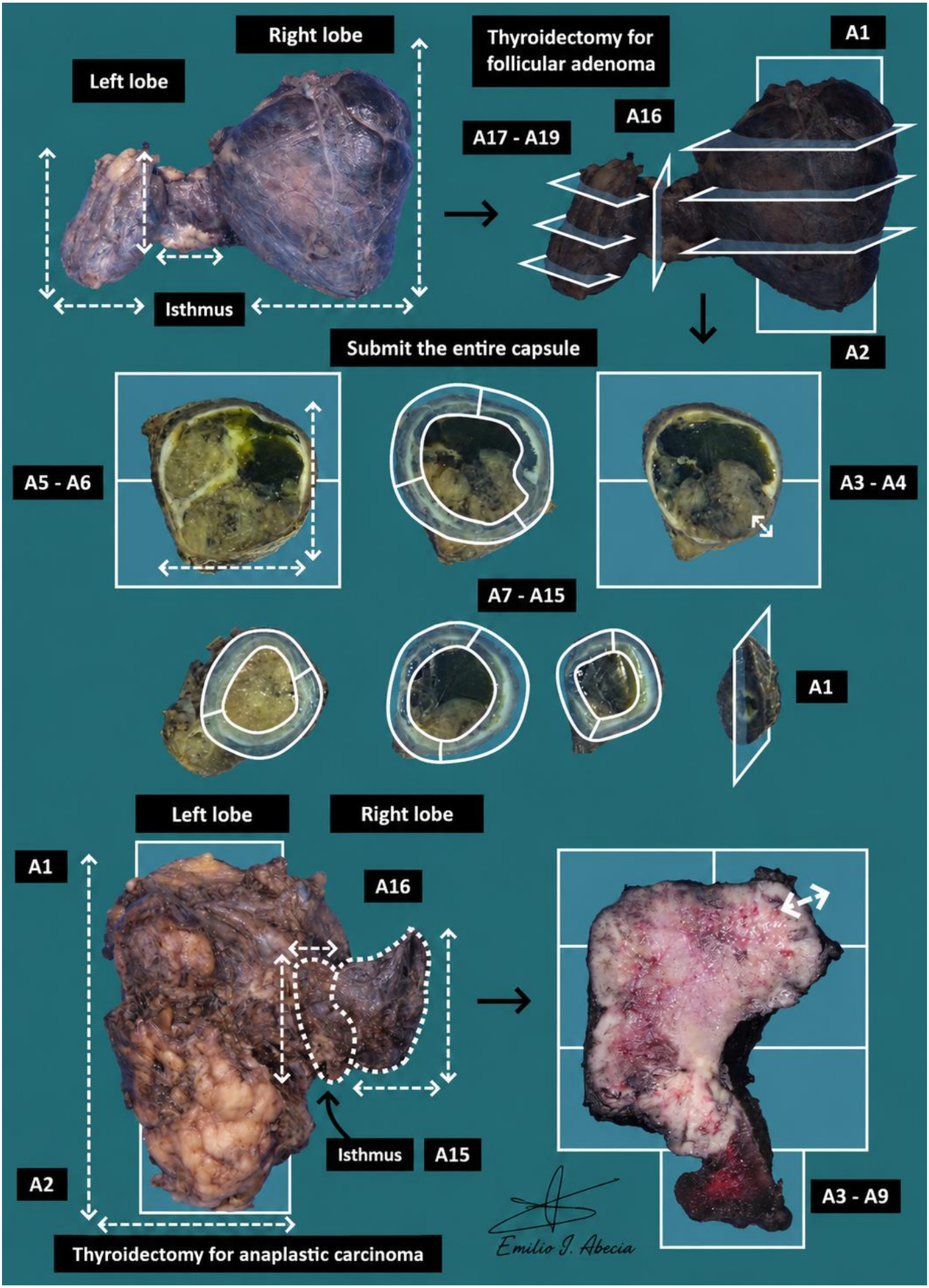

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BIBLIOGRAPHY

- Cipriani N., Rose S. (2019). *Thyroid (Head & Neck)*. Gross Pathology Manual (University Of Chicago). Recuperado el 13 de Mayo de 2024: https://voices.uchicago.edu/grosspathology/head-neck/thyroid/
- *Thyroidectomy (Head and Neck)*. Gross Manual. UCLA Health. Recuperado el 13 de Mayo de 2024: https://www.uclahealth.org/sites/default/files/documents/Thyroid.pdf
- WHO Classification of Tumours Editorial Board (2017). *WHO Classification of Tumours of Endocrine Organs (*4th ed, vol. 10*).* International Agency for Research on Cancer. https://publications.iarc.fr/Book-And-Report-Series/Who-Classification-Of-Tumours/WHO-Classification-Of-Tumours-Of-Endocrine-Organs-2017
- Mete O., Asa S.L., Baloch Z.W., Erickson L., Ezzat S., Rotstein L., Sawka A.M., Seethala R.R., Zafereo M., (2023). *Thyroid* (v4.4.0.0). College of American Pathologists (CAP). Recuperado el 13 de Mayo de 2024: https://documents.cap.org/documents/Thyroid_4.4.0.0.REL_CAPCP.pdf?_gl=1*1bdfdcl*_ga*MTc4Nzk0MDczNC4xNzE0NDczNzAy*_ga_97ZFJSQQ0X*MTcxNDQ3MzcwMi4xLjEuMTcxNDQ3NDExMy4wLjAuMA
- Lemos, M. B., & Okoye, E. (2019). *Atlas of Surgical Pathology Grossing*. Springer Nature Switzerland AG. https://link.springer.com/book/10.1007/978-3-030-20839-4
- Susan C. Lester, French, C. A., & Curtis, S. G. (2010). *Manual of Surgical Pathology: Expert Consult* (ed. 3). Elservier. https://www.sciencedirect.com/book/9780323065160/manual-of-surgical-pathology
- Shameem Shariff. (2019). Fundamentals of Surgical Pathology (ed.2). *Jaypee Brothers Medical Publishers*. https://www.jaypeedigital.com/book/9789388958967
- Westra, W. H., Ralph H. Hruban, Timothy H. Phelps, & Christina Iacson. (2003). *Surgical Pathology Dissection: An Illustrated* Guide (ed.2). Springer. https://link.springer.com/book/10.1007/b97473

DISCLAIMER

The image and text are provided for illustrative purposes only. The tissue sections submitted and the description provided will depend on the individual specimen characteristics, the clinical diagnostic suspicion, the experience of the dissector, and the institutional guidelines of the laboratory.

This document has been translated from the original Spanish version using AI-based tools. The text may contain typographical errors or inaccurate translations.

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