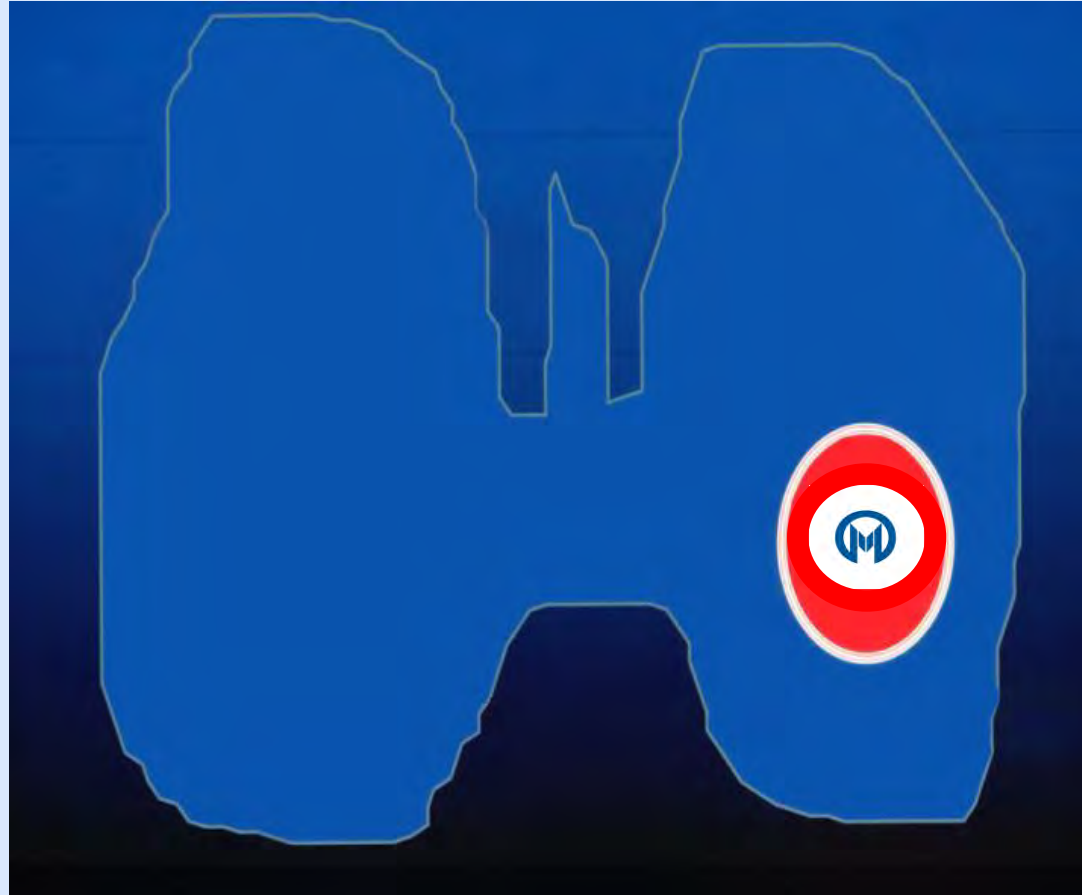


# WHO classification of thyroid cancer, 5<sup>th</sup> edition – changes that impact on diagnosis, prognosis and therapy of follicular-derived thyroid neoplasms



Presented by: William Westra M.D., Professor and Vice Chair of Pathology, The Moffitt Cancer Center  
Disclosures: None to report (i3 Health and FLASCO have mitigated all relevant financial relationships)

# DISCLOSURE



I have no relevant financial relationships to disclose

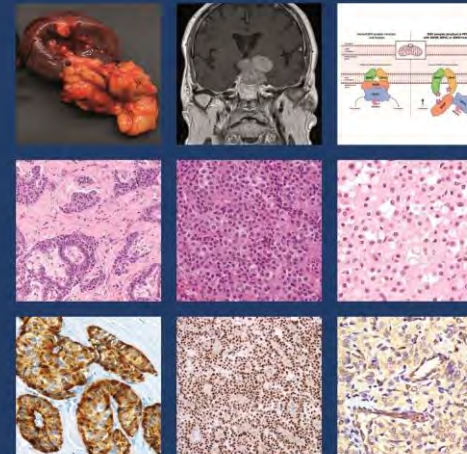
i3 Health and FLASCO have mitigated all relevant financial relationships



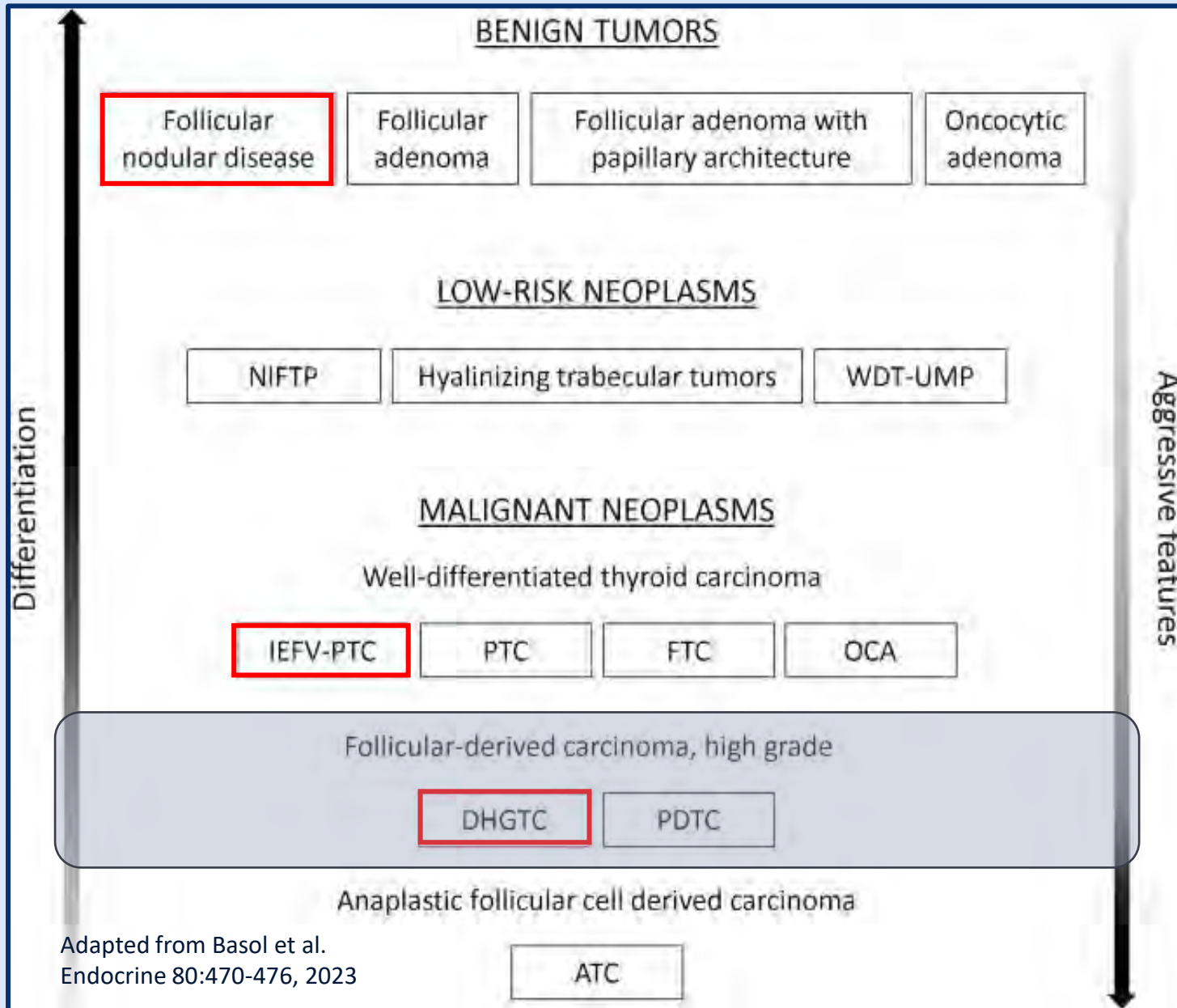
WHO Classification of Tumours • 5th Edition

## Endocrine and Neuroendocrine Tumours

Edited by the WHO Classification of Tumours Editorial Board



# W.H.O Classification of Thyroid Tumors, 2015 – new entities



**NIFTP** = non-invasive follicular thyroid neoplasm with papillary-like nuclear features

**WDT-UMP** = well-differentiated thyroid tumor with uncertain malignant potential

**IEFV-PTC** = invasive encapsulated follicular variant of papillary thyroid carcinoma

**PTC** = papillary thyroid carcinoma

**FTC** = follicular thyroid carcinoma

**OCA** = oncocytic thyroid carcinoma

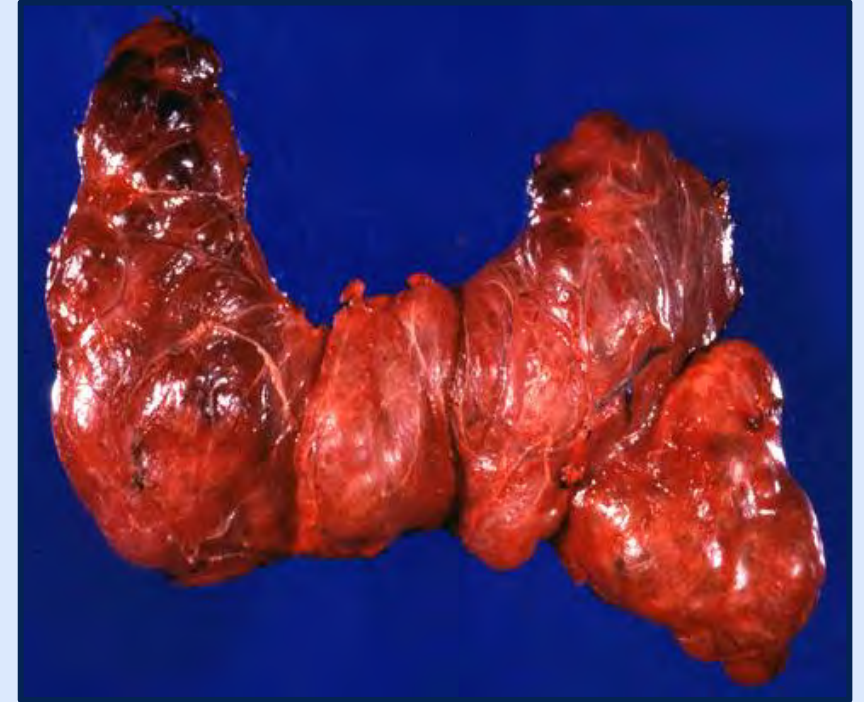
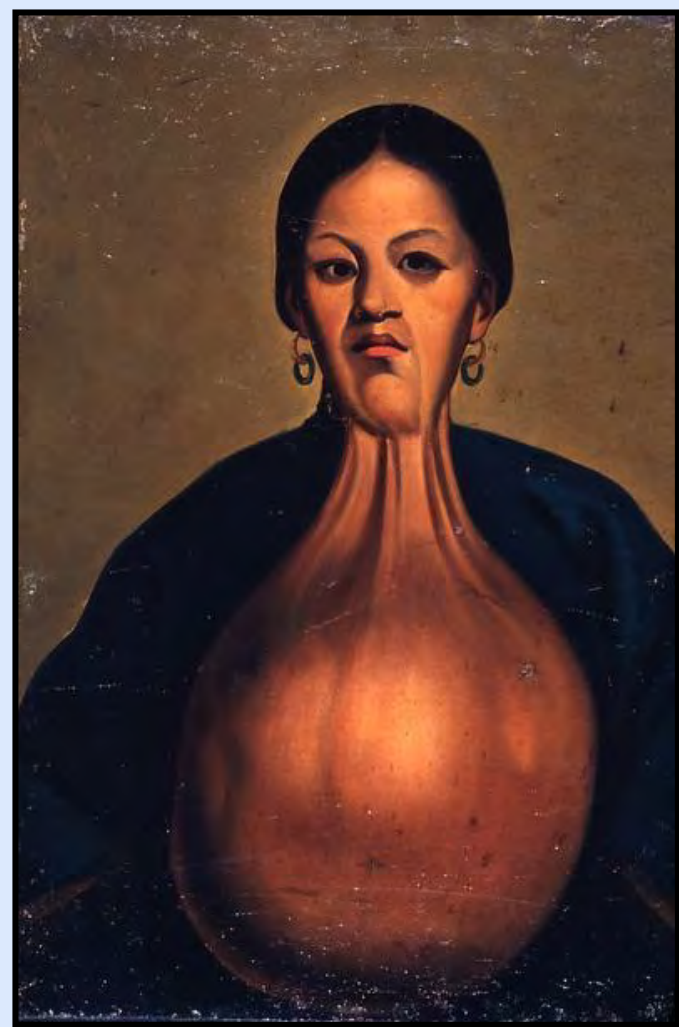
**DHGTC** = differentiated thyroid carcinoma with high-grade features

**PDTC** = poorly differentiated thyroid carcinoma

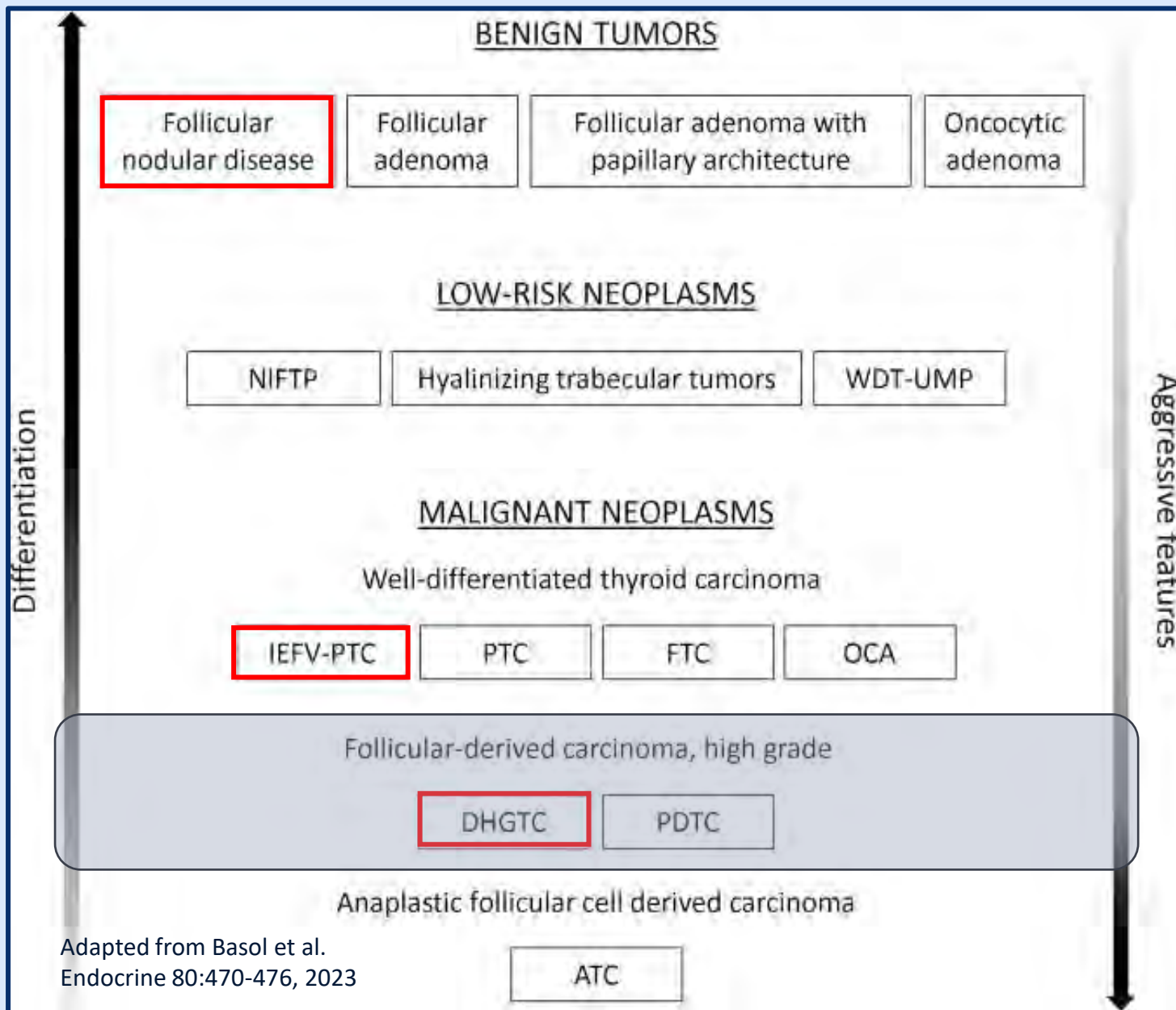
**ATC** = anaplastic thyroid carcinoma



Thyroid follicular nodular disease (FND): A multifocal non-inflammatory benign proliferation of thyroid follicular cells that results in multiple clonal and non-clonal nodules with highly variable architecture. Multinodular goitre (MNG) is clinical term referring to an enlarged thyroid gland with multiple nodules caused by FND.



# W.H.O Classification of Thyroid Tumors, 2015 – new entities



Adapted from Basol et al.  
Endocrine 80:470-476, 2023

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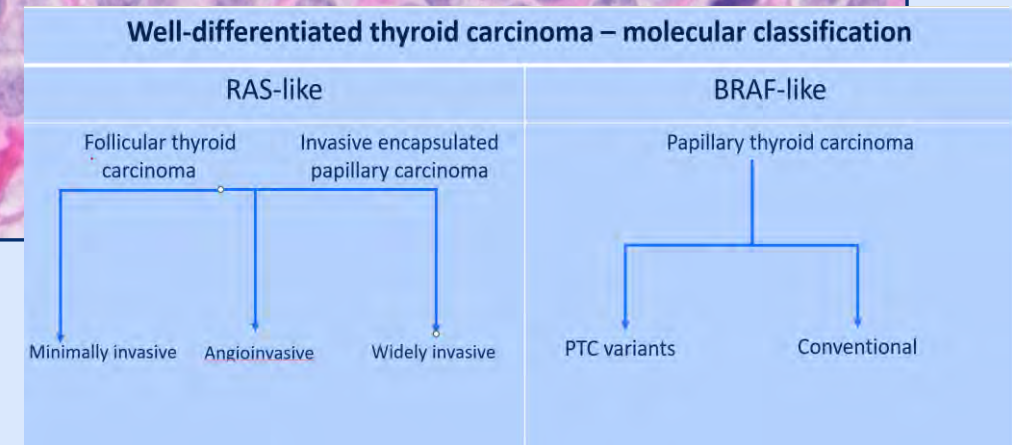
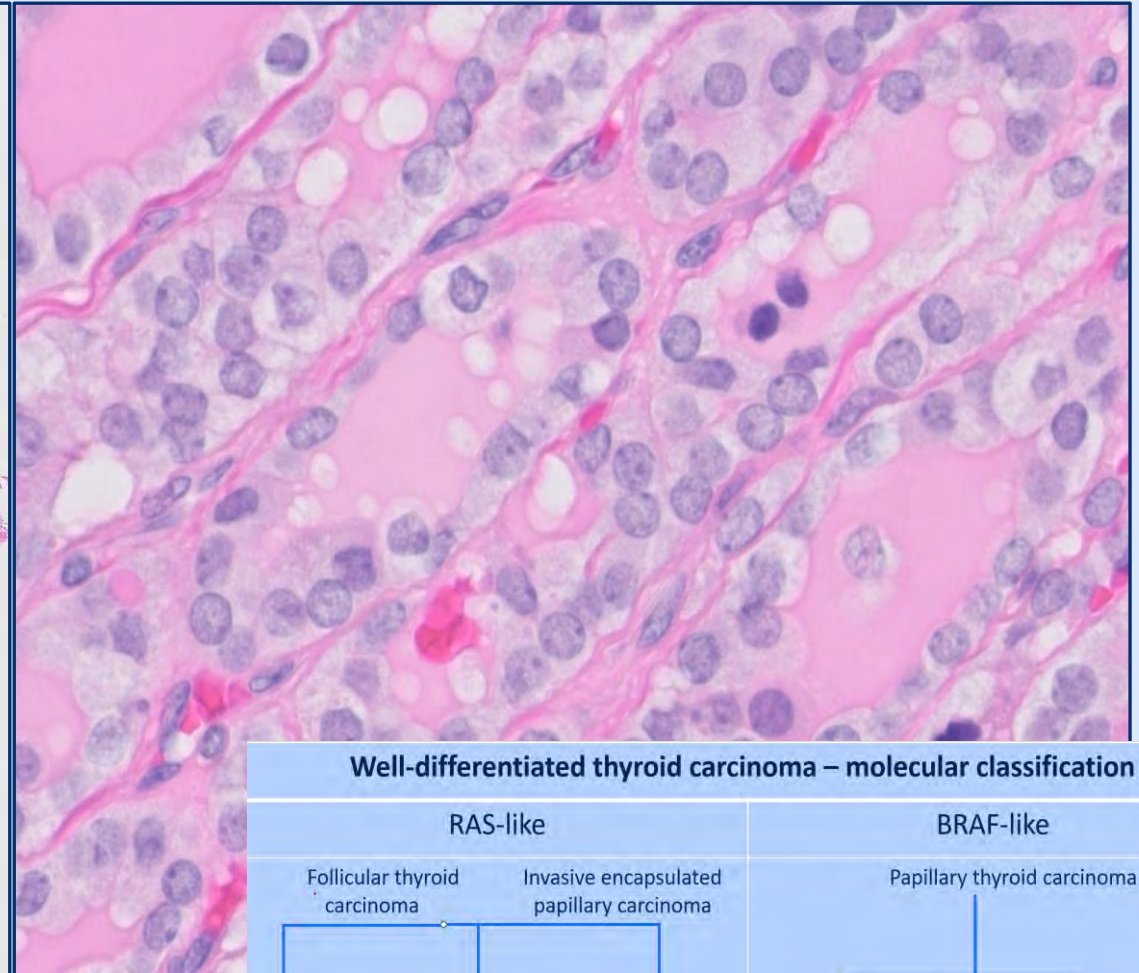
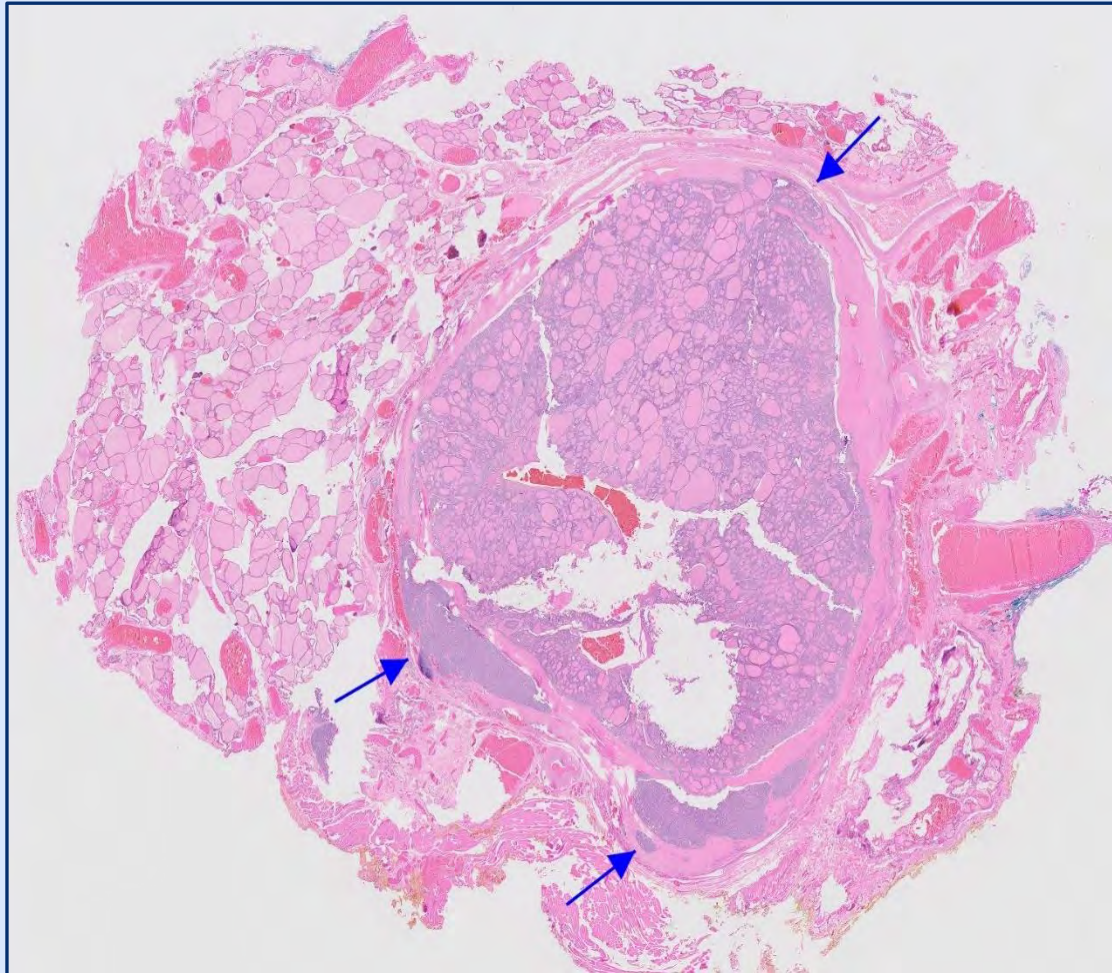
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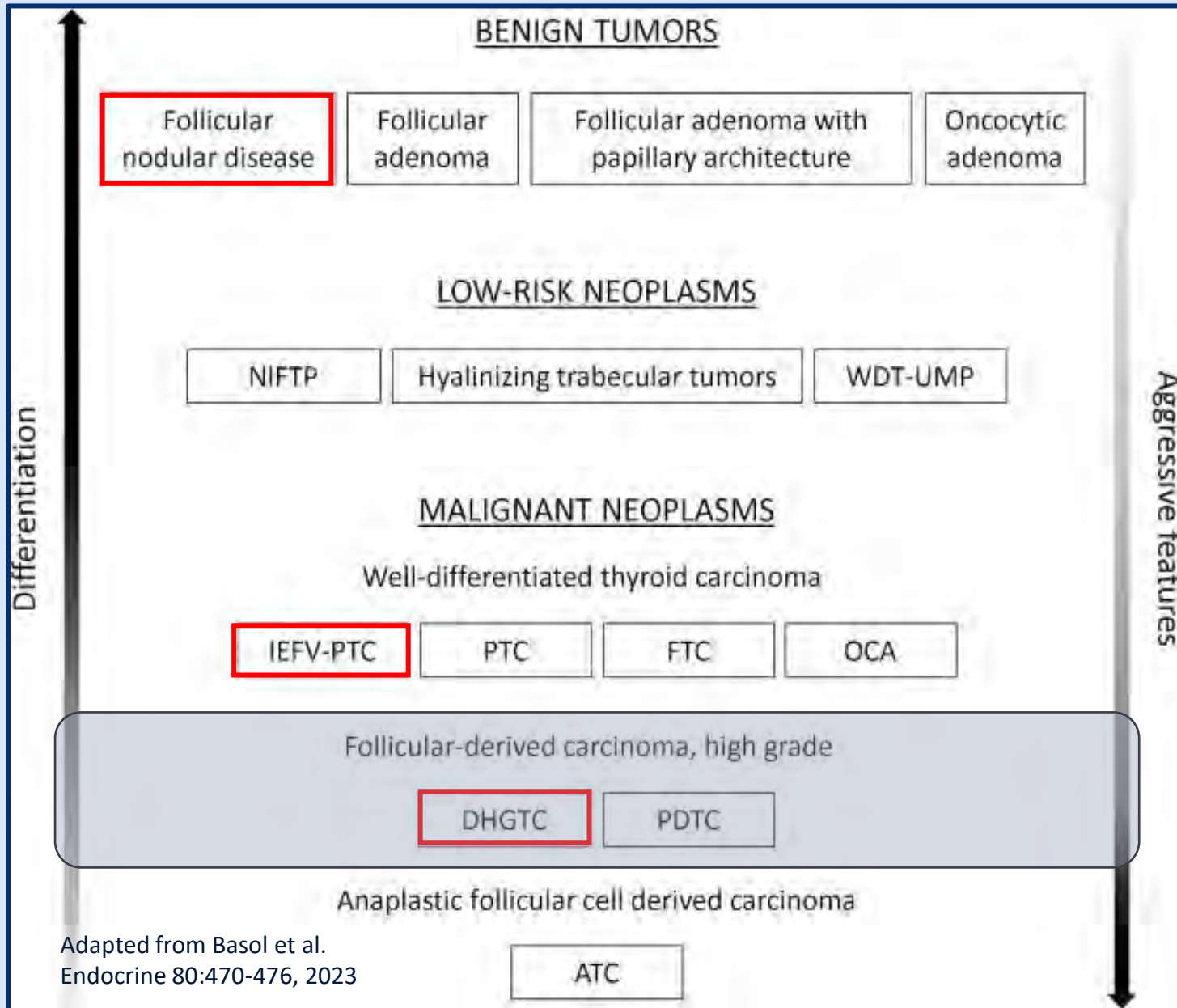
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# Invasive encapsulated follicular variant of papillary thyroid carcinoma



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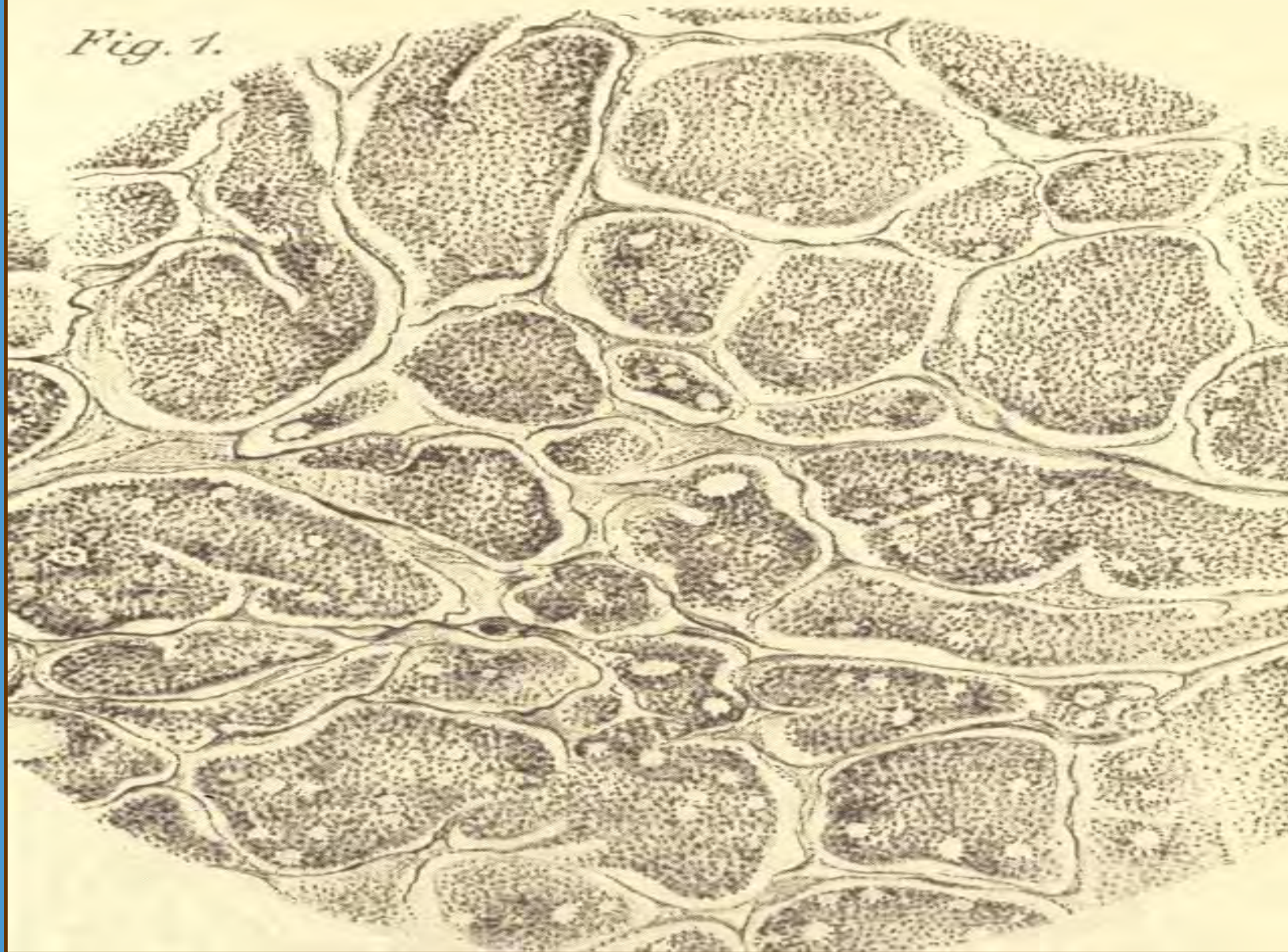
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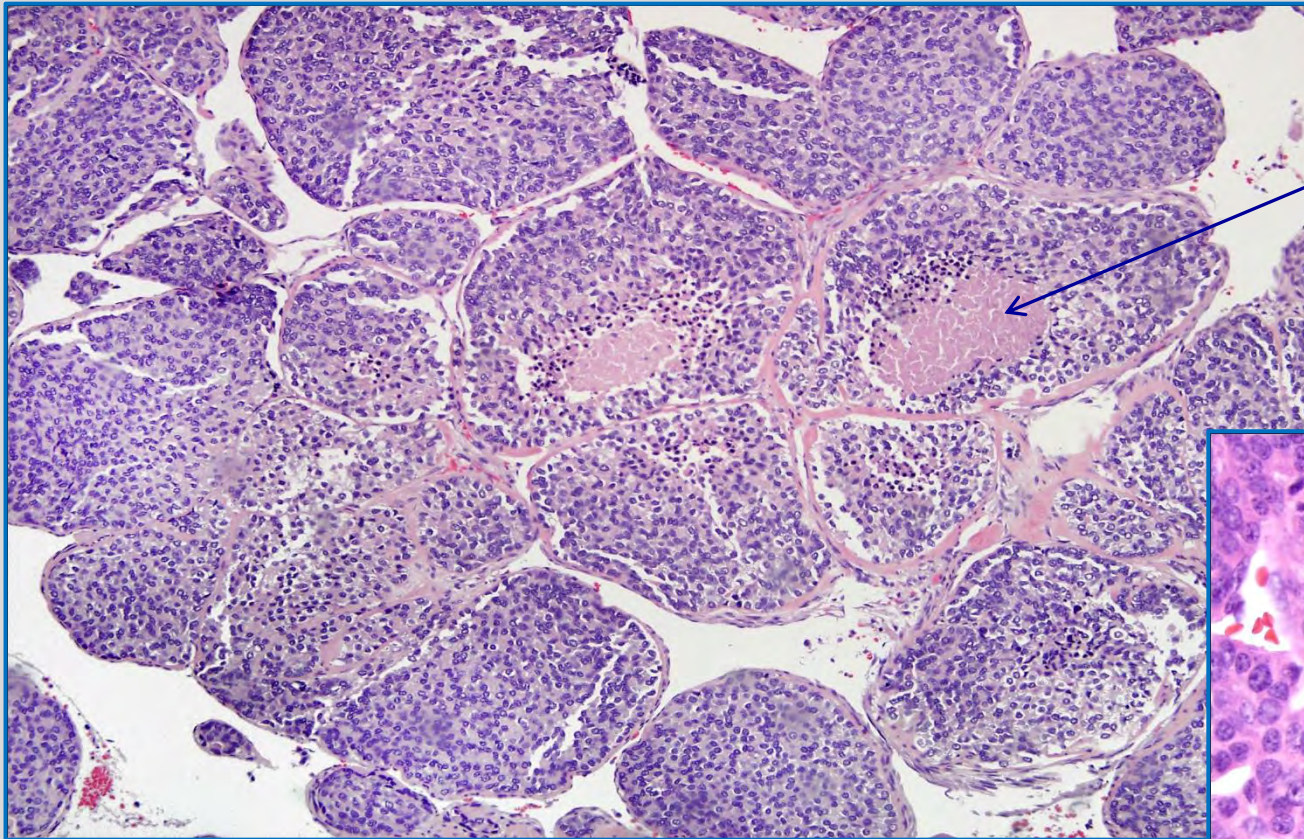
*Uchlores Archib. Bd. CLXXII.*

## Insular Carcinoma

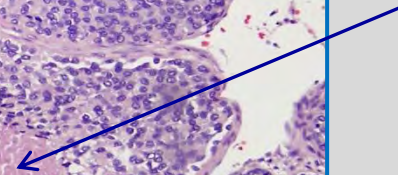
*Fig. 1.*



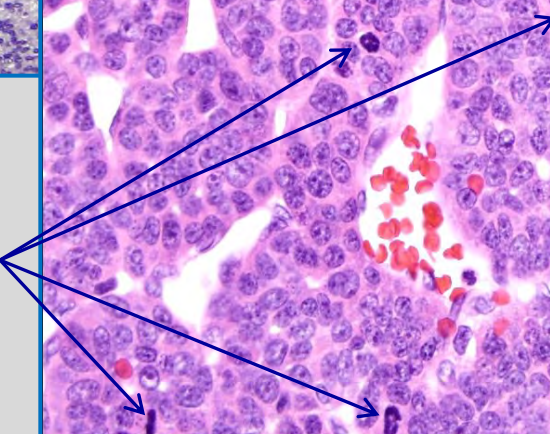
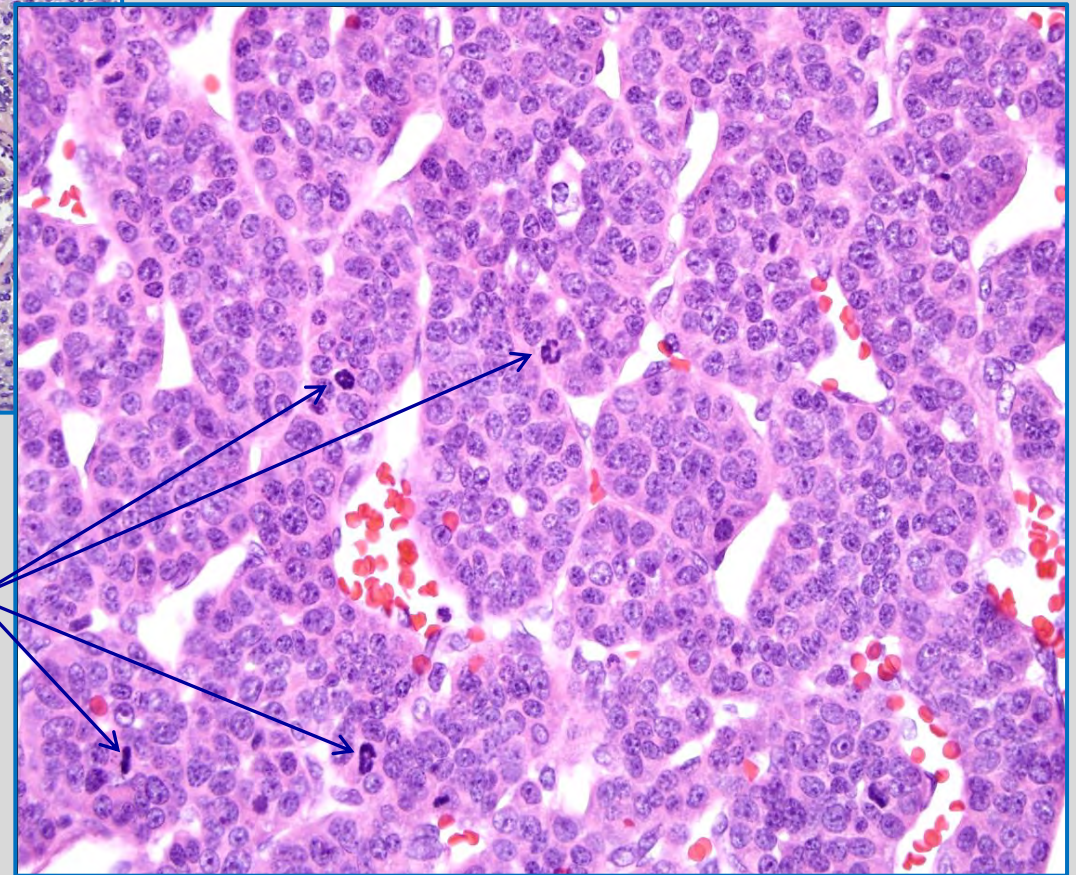




**Necrosis**

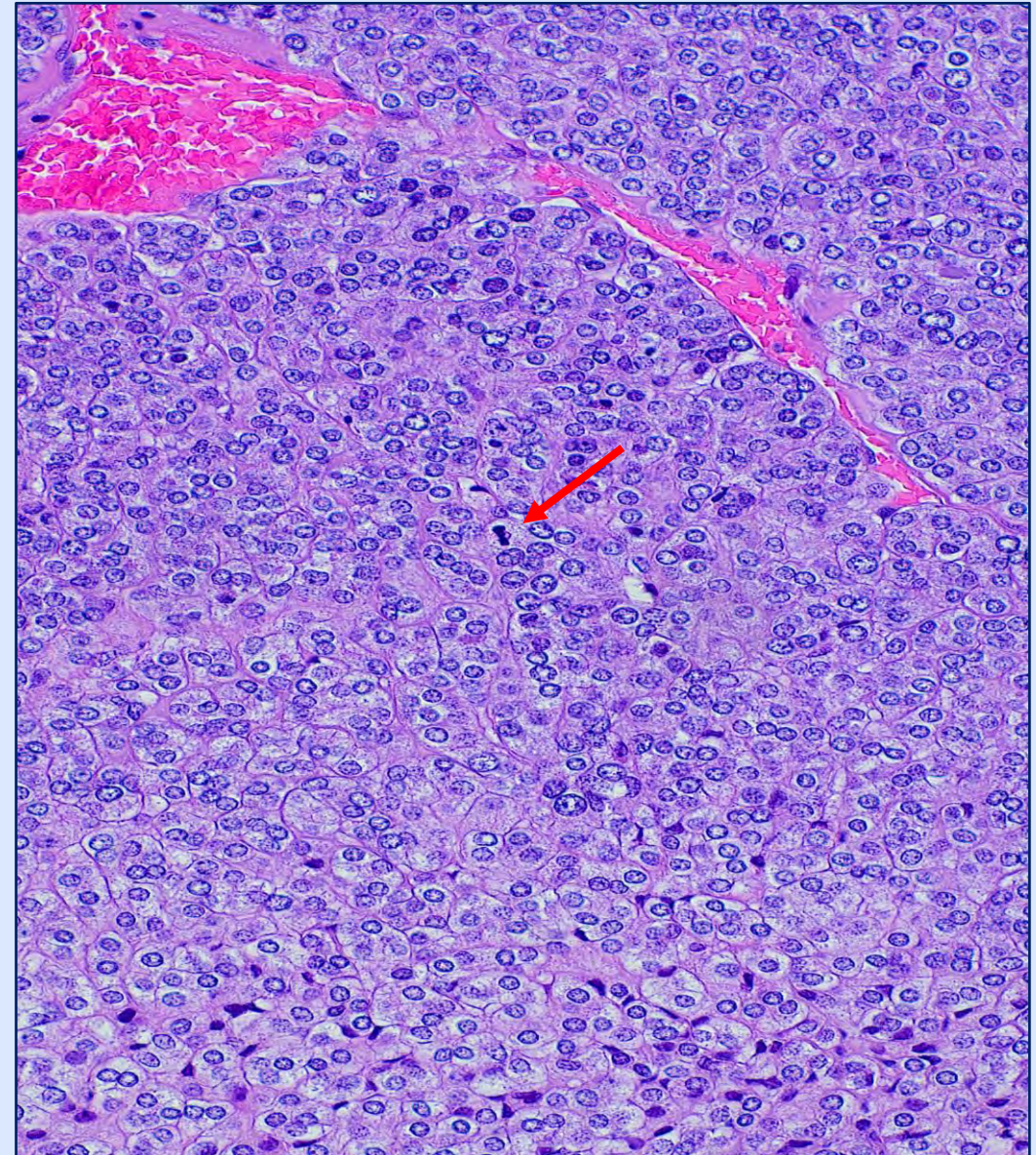
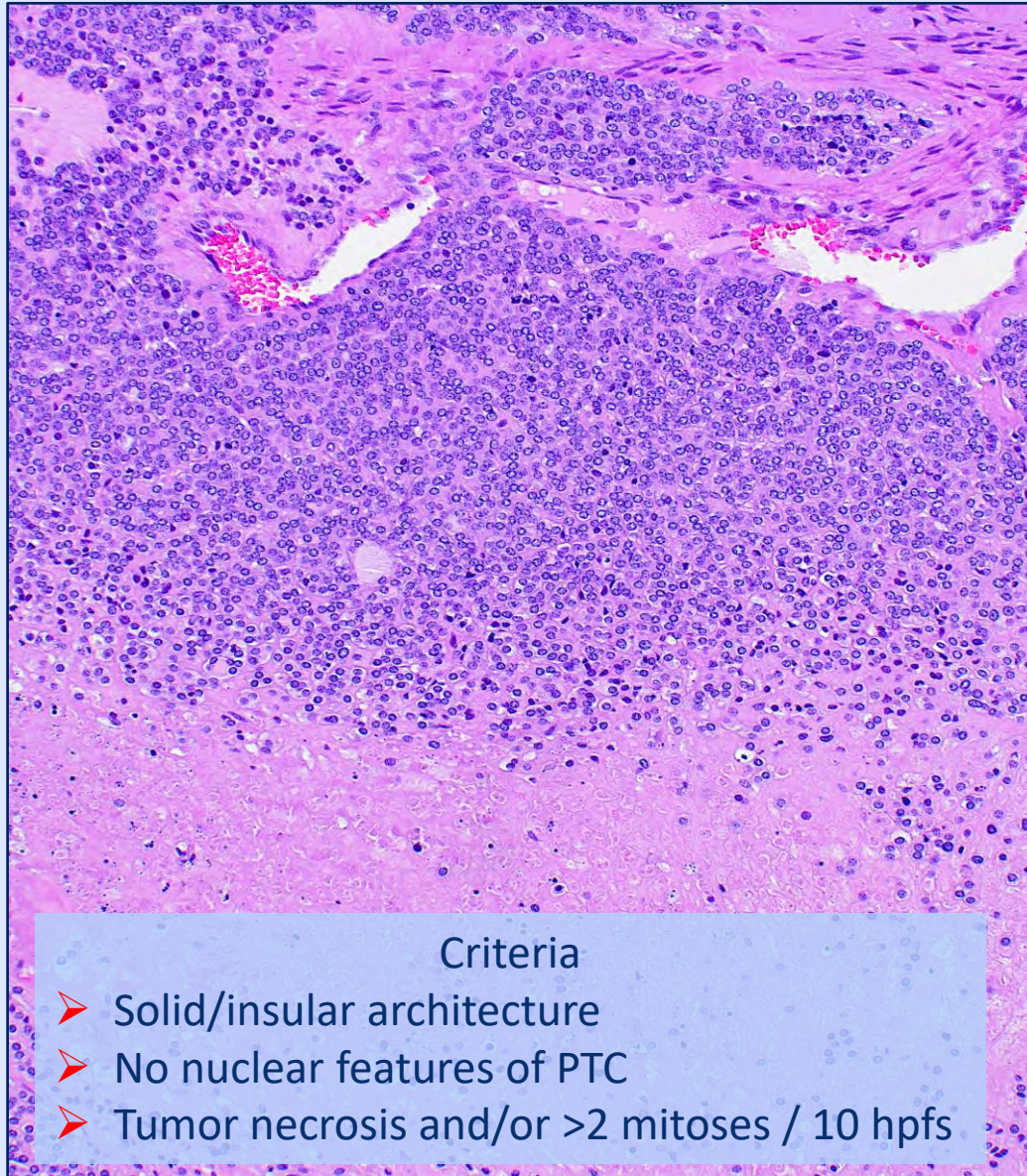


**Mitoses  
( $> 4/10\text{hpf}$ )**



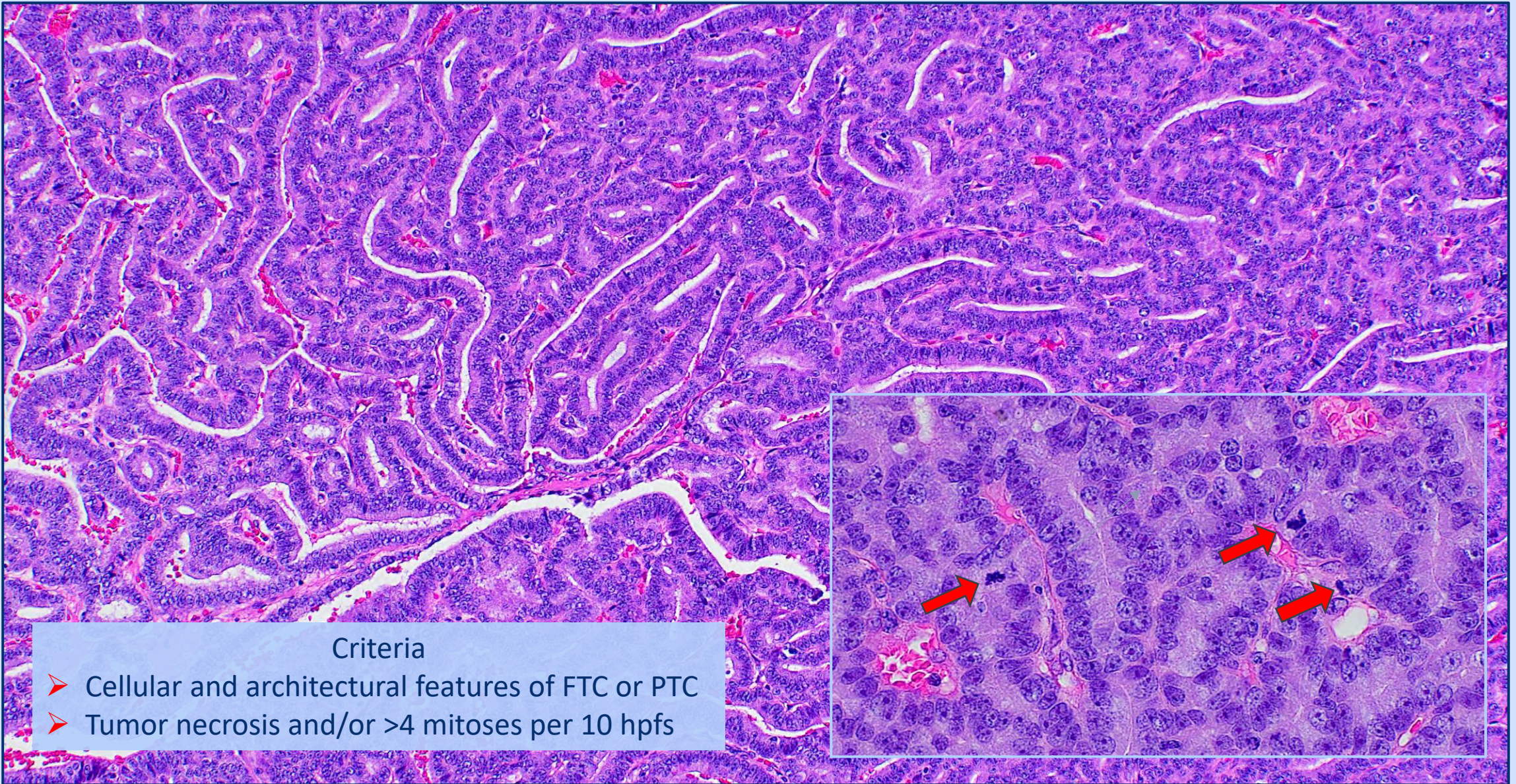


# Poorly differentiated thyroid carcinoma





# Differentiated thyroid carcinoma with high-grade features



## Criteria

- Cellular and architectural features of FTC or PTC
- Tumor necrosis and/or  $>4$  mitoses per 10 hpfs





## Major movements of pathologic classification of thyroid neoplasms as reflected in changes to WHO classification of thyroid cancers, 5<sup>th</sup> edition

1. Molecular classification of thyroid tumors with less reliance on morphologic features
2. More refined definition of thyroid cancers with clinical behaviors intermediate between well-differentiated thyroid cancer and anaplastic thyroid cancer