## **Supplementary Materials**

## Malignancy Analyses of Thyroid Nodules in patients subjected to Surgery with Cytological- and Ultrasound-based Risk Stratification Systems

Stefania Giuliano <sup>1</sup>, Maria Mirabelli <sup>2</sup>, Eusebio Chiefari <sup>2</sup>, Margherita Vergine <sup>1</sup>, Rita Gervasi <sup>3</sup>, Francesco S. Brunetti <sup>2</sup>, Nadia Innaro <sup>3</sup>, Giuseppe Donato <sup>2</sup>, Antonio Aversa <sup>1,4</sup>, and Antonio Brunetti <sup>1,2,\*</sup>

<sup>&</sup>lt;sup>1</sup> Operative Unit of Endocrinology, Azienda Ospedaliera "Mater-Domini", 88100 Catanzaro, Italy

<sup>&</sup>lt;sup>2</sup> Department of Health Sciences, University of "Magna Græcia" Catanzaro, 88100 Catanzaro, Italy

<sup>&</sup>lt;sup>3</sup> Unit of Endocrine Surgery, Azienda Ospedaliera "Mater-Domini", 88100 Catanzaro, Italy

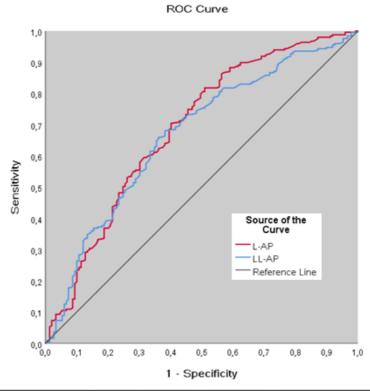
 $<sup>^4</sup>$  Department of Experimental and Clinical Medicine, University of "Magna Græcia" Catanzaro, 88100 Catanzaro, Italy

<sup>\*</sup> Correspondence to <u>brunetti@unicz.it</u>

**Table S1.** Final histology of thyroid nodules classified as highly suspicious for malignancy, according to US risk stratification systems.

	High (AACE/ACE/AME)	High suspicion (ATA)	TR5 (ACR-TIRADS)	
Final histology	N (%)	N (%)	N (%)	
Malignant lesions (overall)	102	61	47	
PTC	89 (87.3)	55 (90.2)	42 (89.4)	
FTC	6 (5.9)	2 (3.3)	1 (2.1)	
MTC	5 (4.9)	3 (4.9)	3 (6.4)	
HCC	1 (1.0)	0 (0.0)	0 (0.0)	
ATC	1 (1.0)	1 (1.6)	1 (2.1)	
Lymphoma	1 (1.0)	0 (0)	0 (0)	
Benign lesions (overall)	77	33	17	
Nodular goiter	44 (57.1)	20 (60.6)	10 (58.8)	
Nodular adenomatous hyperplasia	16 (20.8)	6 (18.2)	1 (5.9)	
Follicular adenoma	11 (14.3)	5 (15.2)	5 (29.4)	
Chronic lymphocytic thyroiditis	5 (6.5)	2 (6.1)	1 (5.9)	

US: Ultrasound; AACE/ACE/AME: American Association of Clinical Endocrinologists, American College of Endocrinology and Associazione Medici Endocrinologi; ATA: American Thyroid Association; ACR-TIRADS: American College of Radiology Thyroid Imaging Reporting and Data System; PTC, papillary thyroid carcinoma; FTC, follicular thyroid carcinoma; MTC, medullary thyroid carcinoma; HCC, Hürthle cell carcinoma; ATC, anaplastic thyroid carcinoma.



			Asymptotic Sig. <sup>b</sup>	Asymptotic 95% Confidence Interval	
Test Result Variable(s)	Area	Std. Error <sup>a</sup>		Lower Bound	Upper Bound
L-AP	,687	,028	,000	,631	,742
LL-AP	,668	,028	,000	,612	,723

Figure S1. ROC analyses illustrating the diagnostic abilities of the measured differences between L, LL and AP diameters in discriminating benign thyroid lesions.

ROC, receiver operating curve; L, longitudinal; LL, transverse; AP, anteroposterior.

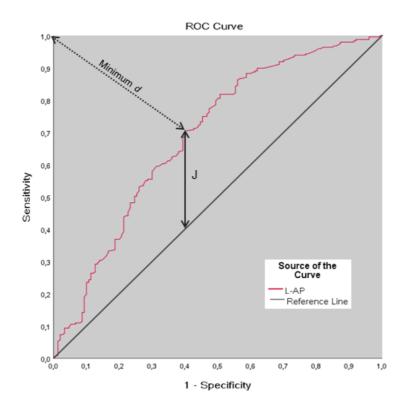


Figure S2. Graphical representation of maximum Youden's index (J) and minimum d denoting the critical cutoff point in discriminating benign thyroid lesions for the measured difference between L and AP diameters.