

RISK-ADAPTED FINDINGS

	<u>LOWER RISK</u>	<u>MEDIUM RISK</u>	<u>HIGHER RISK</u>
Age *	20-45	45-60	>60 or <20
Size(cm) *	<1.5	1.5-4	>4
Aspect (Width/Height)	W>H	W~H	H>W
Echogenicity	Hyperechoic	Isoechoic	Very Hypoechoic
Margins	Well defined Smooth	Blurred Undulating	Irregular Extrathyroid Extension
Halo	Thin, uniform	None	Thick, irregular
Vascularity**	Absent	Perimeter Mild Penetrating	Marked Penetrating Chaotic
Calcifications	None	Coarse Smooth eggshell	Microcalcifications Displaced eggshell
Size Increase ***	None	Intermediate	Minimum 20% + Minimum 2 dimensions
Lymph Nodes (Width/Height)	W>2H Large Hilum	W~2H Small Hilum	W=H Chaotic flow Cyst; No hilum

Adapted from Baskin (13) with additions: * Tuttle (6), ** Levine (14) and *** Gharib (6).

FOLLICULAR CA: INVASION & OUTCOME

Table 18A.9 Categories of follicular carcinoma

	Minimally invasive			Widely invasive (frankly invasive)
	With capsular invasion only	With limited (< 4) vascular invasion	With extensive (≥4) vascular invasion	
Diagnostic criteria	Encapsulated tumor with minimal invasion identified on histologic examination Only capsular invasion, but no vascular invasion	Invasion of less than four blood vessels ± capsular invasion	Invasion of more than four blood vessels ± capsular invasion	Tumor with widespread invasion of adjacent thyroid tissue and/or blood vessels
Mean age at diagnosis		Younger (47–50 years)		Older (53–59 years)
Local recurrence	No	Rare	Rare	Yes
Regional lymph node metastasis	No	Rare	Rare	More common (13–24%)
Distant metastasis	~0%	Rare (5%) and often delayed	Sometimes	Common (29–69%), especially to lung, bone, brain, liver
Clinical outcome	Disease-associated mortality ~0%	Excellent prognosis, with low long-term mortality (3–5%)	Less favorable outcome, with cumulative event rate of 18%	Unfavorable outcome, with long-term mortality of 30–50%
Treatment	Lobectomy	Lobectomy or subtotal thyroidectomy ± suppressive dose of thyroxine	Total thyroidectomy, radioactive iodine, and suppressive dose of thyroxine	Total thyroidectomy, radioactive iodine, and suppressive dose of thyroxine

Fletcher, C. Diagnostic Histopath of Tumors 2007

THYROID FNB

Risk-adapted Approach To Rx & Dx

“Risk stratification is an active, ongoing process in which risks are adjusted on ... accumulated clinical data, rather than considered as a static initial assessment that does not change”

Tuttle RM. Risk-adapted management of thyroid cancer.
Endocr Pract. 2008 Sep;14(6):764-74

REDUCING HIGH MFT/INDx RATES

HT as Benign Explanation for “HCT”

Table 2

Corresponding Histologic Findings for the Aspirated Nodules in Patients With and Without HT

	UVA	BWH	MGH	Total
Patients with HT	7	10	4	21
Neoplastic nodules*	1	6	2	9 (PPV = 42.9%) [†]
Carcinomas	0	2	0	2 (PPV = 9.5%) [‡]
Patients without HT	48	155	63	266
Neoplastic nodules*	33	93	57	183 (PPV = 68.8%) [†]
Carcinomas	15	39	13	67 (PPV = 25.2%) [‡]
No. of FNAs interpreted as SFNHCT	55	165	67	287

Roh MH, Alexander EK, Cibas ES.

The predictive value of the FNB Dx SFNHCT in HT

Am J Clin Pathol. 2011 Jan;135(1):139-45.