MALIGNANCY RATE OF THYROID NODULES, WHICH DEFINED AS FOLLICULAR LESION OF UNDETERMINED SIGNIFICANCE AND ATYPIA OF UNDETERMINED SIGNIFICANCE IN THYROID CYTOPATHOLOGY AND RELATION WITH ULTRASONOGRAPHIC FEATURES

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BACKGROUND

➢ Fine needle aspiration cytology (FNAC) has been widely accepted as the most accurate, safe and cost-effective method for the evaluation of thyroid nodules.

➢ The most challenging category in the FNAC is atypia of undetermined significance (AUS) and follicular lesion of undetermined significance (FLUS).

➢ Bethesda System (BS) recommends repeat FNAC in that category due to their low risk of malignancy.

➢ In our study; we aimed to investigate the malignancy rate of thyroid nodules of AUS and FLUS and to evaluate the presence of biochemical, clinical and echographic features possibly predictive of malignancy related to AUS and FLUS.

MATERIALS AND METHODS

➢ Data of 268 patients operated for AUS and FLUS cytology were screened retrospectively. Ultrasonographic features and thyroid function tests, thyroid antibodies, scintigraphy and histopathological results were evaluated.

RESULTS

➢ 276 nodules of 268 patient's results are evaluated. Malignancy rates were 24.3% in the AUS group, 19.8% in the FLUS group and 22.8% in both group.

➢ In the evaluation of all nodules the predictive features of malignancy are hypoechogenicity and peripheral vascularization of the nodule.

➢ In the AUS group, the predictive feature of the malignancy is only hypoechogenicity, and peripheral vascularization in the FLUS group. .

CONCLUSION

➢ We determined that the malignancy rates in these nodules are higher than the anticipated literature rate. This high ratio may be due to the fact that we studied only the patients who underwent surgery. The ultrasonographic features alone may be insufficient to predict the malignancy, therefore all the clinical and ultrasonographic features must be considered in the evaluation of the thyroid nodules.

➢ In addition, we think that, the recommended management of repeat FNAC in these groups must be reconsidered with the clinical and ultrasonographic features.

Table. Ultrasonograpfic features of benign and malignant thyroid nodules

USG Features		AUS Benign n (%)	AUS Malign n (%)	FLUS Benign n (%)	FLUS Malign n (%)	AAUS + FLUS Benign n (%)	AAUS + FLUS Malign n (%)	p
Compenent	Cystic	3 (2.1)	-	4 (5.5)	-	7 (3.3)	-	
	SoM	54 (38.6)	20* (55.6)	26 (35.6)	6 (33.3)	80 (37.6)	31 (49.2)	
	Mix	83 (59.3)	16 (44.4)	43 (58.9)	12 (66.7)	126 (59.2)	32 (50.8)	
Echogenicity	Isoechoic	84 (79.2)	22 (20.8)	43 (74.5)	14 (25.5)	125 (77.6)	36 (22.4)	
	Hypoechoic	5 (44.4)	10** (55.6)	8 (88.9)	1 (11.1)	16 (59.3)	11*** (40.7)	
	Iso-hypoechoic	46 (78)	13 (22)	22 (88)	3 (12)	68 (81)	16 (19)	
	Iso-hyperechoic	2 (100)	-	2 (100)	-	4 (100)	-	
Border regularity	Regular	66 (47.1)	18 (40)	36 (49.3)	8 (44.4)	102 (47.9)	26 (41.3)	
	Irregular	74 (52.9)	27 (60)	37 (50.7)	10 (55.6)	111 (52.1)	37 (58.7)	
Calcification	Absent	98 (70.0)	31 (68.9)	56 (76.7)	9 (50)	154 (72.3)	40 (63.5)	>0.05
	Micro	18 (12.9)	5 (11.1)	8 (11)	5 (27.8)	26 (12.2)	10 (15.9)	
	Macro	7 (5.0)	5 (11.1)	4 (5.5)	2 (11.1)	11 (5.2)	7 (11.1)	
	Micro-macro	17 (12.1)	4 (8.9)	5 (6.8)	2 (11.1)	22 (10.3)	6 (9.5)	
Halo	Present	60 (42.9)	21 (46.7)	29 (39.7)	8 (44.4)	89 (41.8)	29 (46)	
	Absent	80 (57.1)	24 (53.3)	44 (60.3)	10 (55.6)	124 (58.2)	34 (54)	
Periferal vascularization	Present	24 (17.1)	14 (31.1)	15 (20.5)	7 (38.9)	39 (18.3)	21 (33.3)	
	Absent	116 (82.9)	31**** (68.9)	58 (79.5)	11 (61.1)	174 (81.7)	42 (66.7)*****	
Peripheral calcification	Present	1 (0.7)	-	-	-	1 (0.5)	-	
	Absent	139 (99.3)	45 (100)	73 (100)	18 (100)	212 (99.5)	63 (100)	
Nodule localization	Right	84 (60)	25 (55.6)	31 (42.59)	10 (55.6)	115 (54)	35 (54.5)	
	Left	51 (36.4)	20 (44.4)	34 (46.6)	8 (44.4)	85 (39.9)	28 (44.4)	
	Istmus	5 (3.6)	-	8 (11)	-	13****** (6.1)	-	

*p: 0.045, **p: 0.003, ***p:0.02, ****p: 0.04, *****p: 0.011, ******p: 0.044