

# CLINICAL, IMAGING AND CYTOLOGICAL DIFFERENCES BETWEEN PALPABLE AND NON-PALPABLE THYROID NODULES

J. Nunes e Silva<sup>1</sup>, S.Paiva<sup>2</sup>, C.Ribeiro<sup>2</sup>, M.Melo<sup>2</sup>, L.Gomes<sup>2</sup>, M. Bastos<sup>2</sup>, F.Carrilho<sup>2</sup>

1. Endocrinology, Diabetes and Metabolism Department, Portuguese Armed Forces University Hospital 2. Endocrinology, Diabetes and Metabolism Department, CHUC

## Introduction

The prevalence of palpable nodules varies between 3-7% and nodules diagnosed by ultrasonography between 20-76%. According to the American Thyroid Association's guidelines it isn't recommended to perform routine thyroid ultrasound for thyroid nodules diagnosis, unless they are palpable or there are any risk factors

## Objective

To evaluate sonographic and cytological differences between palpable and non-palpable thyroid nodules

## Methods

Evaluation of patients referred to perform Fine Needle aspiration Cytology (FNAC) in an Endocrinology department. Clinical evaluation was performed by the same doctor without access to clinical or ultrasound information, characterizing if they had palpable nodules and where they were located. Ultrasound and FNAC were made after clinician evaluation.

## Results

186 Nodules of 139 patients  
85,6% female  
43% were palpable nodules  
19 nodules didn't perform FNAC, because didn't met criteria

Figure 1: Patient's and nodules characterization

	Total (%)	Non-palpable	Palpable	P value
Non diagnostic	6,5%	9	2	0.122
<b>Benign</b>	<b>81,4%</b>	<b>73</b>	<b>59</b>	<b>0.043</b>
FLUS	8,9%	8	7	0.133
Follicular neoplasm	1,2%	0	2	0.163
Suspicious for malignancy	1,2%	1	1	0.284
Malignancy	0,6%	0	1	0.367

	Non-Palpable	Palpable	P value
Sex F (n)	68 (80)	89 (106)	0,325
Age (years)	57,44	57,86	0,451
Location			
<b>Superior</b>	<b>18</b>	<b>62</b>	<b>0,034</b>
<b>Middle</b>	21	16	0,256
<b>Inferior</b>	<b>41</b>	<b>28</b>	<b>0,03</b>
<b>Localização</b>			
<b>- Anterior</b>	<b>37</b>	<b>73</b>	<b>0,087</b>
<b>Size (mm)</b>	<b>16,94</b>	<b>23,36</b>	<b>0,032</b>
Characteristics			
- Solid	16	16	0,214
- Mixed	52	67	0,256
- Cyst	12	23	0,162
Hypoechoic	61	84	0,436
Isoechoic	8	14	0,276
Hyperechoic	11	13	0,384
infiltrative margins	16	23	0,462
microcalcifications	7	12	0,385

Table 1: Sonographic characterization of palpable and non-palpable nodules

Table 2: FNAC differences between non-palpable and palpable nodules

## Discussion/Conclusion

The palpable nodules were only 43% of nodules observed by ultrasound. They were larger and were located more superiorly. Non-palpable nodules were more frequent benign cytological results ( statistically significantly ), however malignancy rate between the two types of lesions was similar despite the limitations of the study. Although there is no formal indication for screening non-palpable nodules when they are diagnosed, they have to have an evaluation and follow-ups similar to palpable nodules .