

Clinical and biological differences between incidental and non-incidental Papillary Thyroid Microcarcinomas (PTMC)

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INTRODUCTION AND OBJECTIVES

The clinical significance and potential morbidity of PTMC is discussed, particularly the differences between those PTMC identified postoperatively in histological examination (incidentals), and those diagnosed preoperatively (non-incidentals). We retrospectively analyzed differences in clinical presentation and course after treatment in these two groups.

METHODS

Among 542 patients who underwent surgery from 2000 to 2014 for PTC, there were 199 with PTMC. Eight patients preoperatively diagnosed of lateral compartment lymph node metastasis (LNM) were excluded, as they were considered suffering a more advanced disease. We compared clinical presentation, pathological characteristics, and outcomes between both groups.

RESULTS

Patients with incidental PTMC were older, had smaller tumours and lower preoperative TSH levels. Incidence of serological or histological evidence of autoimmunity was not different between both groups. Multifocal disease and extracapsular invasion (ETE) were most frequently reported in non-incidental neoplasms.

One hundred and sixteen out of 122 patients treated with radioiodine had at least one year of follow-up (62 incidentals and 54 non-incidentals).

One year after radioiodine, 8 incidental cases didn't reach remission (REM) criteria. Three of them persisted with biochemical disease (detectable Tg) till three years after the initial treatment; one patient is waiting for surgery of an identified cervical adenopathy; two achieved remission after ganglionic surgery plus another radioiodine course and two without no additional treatment.

There were two non-incidental patients who did not achieve remission one year after ablation, both without structural disease, and persisted without progression one and six years later. There was one biochemical relapse three years after surgery in the non-incidental group.

	INCIDENTAL	NON-INCIDENTAL	p
Males (%)	14/118 (11.8%)	9/73 (12.3%)	
Age (years)	55.7 (13.1)	50.8 (15.4)	0.014
Size (mm)	4.3 (2,6)	7.9 (2.2)	0.001
HYPOT/HYPERT (%)	3.5/11.8	7.9/1,6	
TSH (mU/mL)	1.87 (1,52)	3.06 (2.63)	0.001
Ac TPO	20.6 %	23.2 %	
ETE	4.0 %	25.6 %	<0.001
INFLAMATTION	23.6 %	39.2 %	0.37
MULTIFOCALITY	29.8 %	46.8 %	0.02
N1	56.3 % (9/16)	48.1 (25/52)	0.73
NO *REM 1 year AFTER I131	8/62 (12.9%)	2/54 (3.7%)	-
PERSISTENT DISEASE#	4/62 (all persistences, 3 only biochemical)	3/54 (one relapse)	-

*REM (REMISSION CRITERIA): undetectable stimulated Tg and normal high-resolution cervical ecography.

At the end of follow-up.

CONCLUSIONS

- In our series, a high rate of PTMC presented risk factors, including multifocality, capsule invasion, and N1, particularly in non-incidental cases.

- Remnant disease after ablation is more often seen in incidental PTMC than non-incidental cases, excluding those diagnosed for ganglionic disease. This is in opposition to published reports. We cannot explain this feature (less careful surgery?), but it deserves consideration when treating incidental PTMC.

REFERENCE

Mehanna H et al. Differences in the recurrence and mortality outcomes rates of incidental and nonincidental papillary thyroid microcarcinoma: a systematic review and meta-analysis of 21.329 person-years of follow-up. *J Clin Endocr Metab* 2014; 99: 2834-2843.

