**PAPILLARY THYROID MICROCARCINOMA**

**FOCUS ON PREVALENCE, CHARACTERIZATION AND FOLLOW-UP DURING A 10 YEAR TIME PERIOD**

Maria Teresa Pereira¹, André Couto de Carvalho¹, Susana Garrido¹, Ana Rita Galdas¹, Marta Ferreira¹, Raul Almeida¹, Ana Maia Silva¹, Cláudia Freitas⁵, Sofia Teixeira¹, Vitor Valente², António Carvalho³, Moreira da Costa³, Paulo Bateira³, Fátima Borges¹

¹Department of Endocrinology, Diabetes and Metabolism; ²Department of Surgery; ³Department of Pathology; Hospital de Santo António – Centro Hospitalar do Porto – Portugal

**introduction**

- Recent studies point to an ever increasing papillary thyroid microcarcinoma (PTMC) prevalence, with a percentage range between 20-43% of all differentiated thyroid carcinomas;
- It is many times considered an “incidental” finding discovered at final histology after thyroid resections done for benign pathology;
- Its clinical behaviour is uncertain and no consensus on its malignant potential or its treatment exists.

**aims**

- To characterize a cohort of patients with PTMC, with reference to clinical and pathological variables and outcomes;
- To evaluate the PTMC prevalence in respect to the total of thyroid cancers diagnosed in the last 10 years.

**methods**

- Data from patients with histopathologic diagnosis of PTMC during a 10 year time frame (between Jan-2003 and Oct-2013) were retrospectively reviewed;
- PTMC prevalence, demographic data, clinical and histological features were retrieved and final outcome assessed at maximum 10 years follow-up.

**results**

**216 patients**

<table>
<thead>
<tr>
<th>Gender: Female/ Male</th>
<th>184 (85%)/ 32 (15%)</th>
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<tbody>
<tr>
<td>Age (at diagnosis, median)</td>
<td>57 (19-84)</td>
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<tr>
<td>Male</td>
<td>57.5 (30-82)</td>
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**PREOPERATIVE DIAGNOSIS (cytological and/or clinical)**

- Benign hyperplasia (multinodular goiter/solitary nodule)
- Follicular neoplasm
- Papillary carcinoma
- Hurthle cell tumor
- Toxic goiter/adenoma
- Graves disease
- "Suspicion for malignancy"
- Other

**2016 patients**

**TYPE OF THYROID SURGERY**

- Total Thyroidectomy: 172 (79.6)
- Lobectomy: 27 (12.5)
- Completion thyroidectomy: 12 (5.6)
- Total thyroidectomy plus ganglionar neck dissection: 5 (2.3)

**HISTOLOGICAL FEATURES OF PTMC**

<table>
<thead>
<tr>
<th>Tumor size (mm)</th>
<th>n (%)</th>
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<tbody>
<tr>
<td>&gt; 5 mm</td>
<td>86 (40)</td>
</tr>
<tr>
<td>5 mm</td>
<td>122 (55)</td>
</tr>
<tr>
<td>Unknown</td>
<td>8 (4)</td>
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<table>
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<tr>
<th>Variant type</th>
<th>n (%)</th>
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<tr>
<td>Classical/ papillary</td>
<td>171 (79.2)</td>
</tr>
<tr>
<td>Follicular</td>
<td>39 (18.1)</td>
</tr>
<tr>
<td>Oncocytic</td>
<td>5 (2.3)</td>
</tr>
<tr>
<td>Encapsulated</td>
<td>1 (0.5)</td>
</tr>
</tbody>
</table>

| Unicentricity | 154 (71) |
| Multicentricity | 62 (29) |
| Infraglandular | 195 (90) |

| Extraindustrial extension | 21 (10) |
| Lymph node metastases    | 8 (4)   |
| Distant metastases (limbus) | 1 (0.5) |

**THYROID RADIOIODINE ABLATION**

- Radioactive iodine (RAI) ablation: 43 patients (20%)
  - Undetectable stimulated TG levels: 4 patients (9%)
  - Median RAI activity (MCi): 100 (80-150; min-max)
  - Median follow-up time (surgery-RAI ablation): 4.5 months (1.6-28; min-max)
  - 1 radioiodine ablation therapy: 7 patients (16%)
  - Median follow-up time (1st-2nd RAI ablation): 13 months (7-26; min-max)

**MEDIAN FOLLOW-UP TIME**

- 3.5 yrs (1.1 mo-10.4 yrs)

**RECURRENT**

- 2 patients (0.9%) with cervical lymph node metastases
- Time to relapse: 2 and 3.5 yrs

**FOLLOW-UP:**

There were no deaths attributed to thyroid cancer during this period

**conclusions**

- In this 10-year study, most of the diagnosed PTMC were incidentally found in benign thyroid disease (multinodular goiter);
- The relatively uneventful course of PTMC, with low rates of cervical node metastases at diagnosis and recurrence during this time, may justify a less intense follow-up.