# Management of Micropapillary Thyroid Carcinoma

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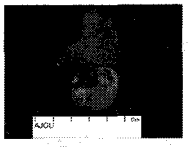
## 1. Thyroid microcarcinoma?

- Thyroid microcarcinoma(TMC)
  - Less than 10mm in diameter(WHO)
  - *Thyroid clinical cancer(TCC)*
    - incidental cancer
    - occult cancer
    - latent cancer



41.8% of TMC was detected by screening U/S
김정한등, 2002

## 2. Difference between TMC and TCC

### 2-1. Incidence

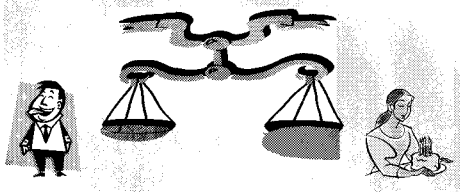
TMC 1.5%-35.6% → TCC 0.5-10/100,000명

*TMC in autopsy 10%*
*TCC in mass screening 0.14%*
*in Japan*

*Ishida et al. Jap J Clin Oncol, 1988*

## 2. Difference between TMC and TCC

### 2-2. Gender



## 2. Difference between MTC and CTC

### 2-3. Histologic type

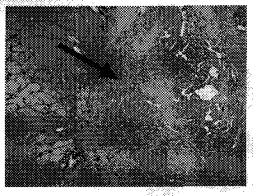
| | Clinical cancer | | Microcancer | |
|---|---|---|---|---|
| | Incidence | Percent | Incidence | percent |
| Papillary | 3182 | 82 | 1844 | 93 |
| Follicular | 438 | 11 | 131 | 7 |
| Medullary | 57 | 1 | 10 | 0.5 |
| Undifferentiated | 69 | 2 | 0 | 0 |
| Lymphoma | 122 | 3 | 1 | |
| Squamous cell | 2 | | 0 | |
| Total | 3870 | | 1986 | |

*Noguchi Thyroid Clinic 1966-1996*

## 2. Difference between TMC and TCC

### 2-4. Histologic finding

- Sclerosing carcinoma
  - In TMC; 21-41%
  - In TCC; rare
  - smaller TMC>larger TMC
  - *Yamashita H et al, 1985*
  - *Sako H et al, 1996*



*Diameter 5mm(H & E, x100)*

## 2. Difference between TMC and TCC

### 2-5. Recurrence

- TCC
  - recur 10-14%
  - mortality 6-11%
- TMC
  - recur 0-11%
  - mortality 0- 0.4%

## 3. Prognosis of MTC

### 3-1. Prognostic factors

- **In TCC ;** *usually survival rate*
  AGES, AMES, MACIS, EORTC, TNM, SAG.....
- **In TMC ;** *usually recurrence rate*
  Vascular or capsular invasion, lack of lymphoid infiltrate, gross cervical nodes metastasis *(Satge, 1990)*
  Lymph node metastasis, extent of surgery *(Hay, 1996)*
  Multifocality, extent of surgery *(Baudin, 1998)*
  ECI of metastaticL/N, Absence of GD (Yamashita, 2000)

## 3. Prognosis of MTC

### 3-2. Prognosis in thyroid resection

- Hay et al, 1987
  - ***In low risk patients***
    *No difference in survival rate between lobectomy and bilateral resection*
  - ***In high risk patients***
    *Higher survival rate in bilateral resection than lobectomy alone*
- Baudin et al, 1998
  - ***Unilateral single nodule***
    *unilateral resection* *recurrence <3.3%*
  - ***Unilateral multiple nodules***
    *Unilateral : bilateral resection* *recurrence5% ; 20%*

## 3. Prognosis of MTC

### 3-3. Prognosis in L/N dissection

- **1743 patients with TMC**
  (Noguchi Thyroid Clinic, 1970-1994, Mean F/U 11.2years)
  Recurrence 31 patients(1.7%)
  Thyroid cancer related death 4 patients(0.2%)

| Manner of excision | Total No. of Patients | No. of Patients with Recurrence | Recurrence rate(%) |
|---|---|---|---|
| No nodes excised | 1419 | 17 | 1.2 |
| Prophylactic | 234 | 5 | 2.1 |
| Therapeutics | 90 | 9 | 10.0 |
| Total | 1743 | 31 | 1.8 |

## 3. Prognosis of MTC

### 3-4. prognosis

- Univariate analysis between recurrence and factors
  - Nodal factors
    - Extracapsular invasion, gross nodal metastasis, microscopic nodal metastasis, number of examined lymph node
  - Coexisting benign lesions
    - Graves' disease, adenomatous goiter, chronic thyroiditis, follicular adenoma,
  - Age
  - Gender

**Multivariate analysis**
**Extracapsular invasion and absence of Graves' disease**

*Noguchi Thyroid Clinic, 1970-1994, Mean F/U 11.2years*

## 4. Extent of Surgery

### 4-1. General aggrement in MTC

- **Usually silent cancer –clinically & biologically**
- **Recurrence rate is low and does not affect survival**
- **L/N metastasis may affect recurrence, not survival rate**
- **Multifocality may or may not risk factor for recurrence in TMC**
- **Most recurrence can be cured after further neck surgery**
- **Few cases show extensive node or distant metastasis initally**

## 4. Extent of Surgery

### 4-2. Thyroid gland

- **usually recommended less than total thyroidectomy**

**Lobectomy**

single micropapillary carcinoma less than 1Cm

**Bilateral resection**

multifocal,
clicically evident cervical nodes, distant metastasis
high risk patients(extrathyroidal extension in old age)

F/U with thyroglobulin level
if recurred; completion thyroidectomy
radioiodine scan and ablation therapy

## 4. Extent of Surgery

### 4-2. Lymph node

- not palpable node, intraoperatively
  - no L/N dissection.
  - central compartment node dissection
- palpable node, intraoperatively
  - central compartment node dissection
  - limited L/N dissection
- gross L/N palpable, preoperatively
  - modified radical neck dissection

## 5. Operation

- **Conventional surgery**
- **Minimal invasive surgery**
- **Endoscopic surgery**