Follow-up del carcinoma tiroideo a rischio intermedio-alto

Identikit del paziente a rischio intermedio-alto

Cosimo Durante

Università di Roma Sapienza
Dipartimento di Medicina Interna
Global risk of recurrence

The 1990s (1077 pts)

241/1077 pts

22.3%


The 2010s (1020 pts)

13/1020 pts

1.4%

Durante et al., JCEM, 2013
Estimating the *individual* risk

**Why it is important?**

Not all patients are the same

- Low risk
- Intermediate risk
- High risk

We are moving from a population-wide versus individual-based approach
Estimating the **individual risk**

*Why it is important?*

Risk stratification allows tailoring management strategies to individual risk.

- **Administration of** $^{131}$I **after surgery**
- **Use of TSH suppression**
- **Strategies and methods that will be used to detect disease recurrence**
- **Frequency and duration of follow-up**
Clinical cases

- **Histology:** PTC, classic variant, 12 mm, pT1b, Nx – Stage I
  - 51 yrs

- **Histology:** PTC, follicular variant, 18 mm, extrathyroidal extension, 6 out of 21 metastatic lymph nodes, pT3, N1a – Stage III
  - 63 yrs

** ISSUES **

- What is the risk of persistent/recurrent disease of these patients?
- How can we estimate their individual risk?
Estimating the \textit{individual} risk

✓ At any time during follow-up
✓ Reliable assessment requires the use of the right tool at the right time

![Timeline with early and late follow-up stages](image-url)
Estimating the *individual* risk

What is the risk of persistent disease?

- Initial evaluation *at diagnosis*

- Early follow-up
- Late follow-up

- 0
- 2-3
- 12

*months*
Estimating the risk at diagnosis

**Risk of mortality**

<table>
<thead>
<tr>
<th></th>
<th>EORTC</th>
<th>AGES</th>
<th>AMES</th>
<th>MACIS</th>
<th>OSU</th>
<th>SKMMC</th>
<th>AJCC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>--</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Sex</td>
<td>X</td>
<td>--</td>
<td>X</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Size</td>
<td>--</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Multicentricity</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>X</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Grade</td>
<td>--</td>
<td>X</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>X</td>
<td>--</td>
</tr>
<tr>
<td>Histology</td>
<td>X</td>
<td>PTC</td>
<td>X</td>
<td>PTC</td>
<td>--</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Invasion</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Nodes</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Metastases</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Complete excision</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>X</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>
Estimating the risk at diagnosis

Risk of recurrence: ATA staging systems

- **Low**
  - pT1-2
  - Nx/N0
  - M0
  - no aggressive histology

- **Intermediate**
  - pT3
  - N1
  - M0
  - aggressive histology

- **High**
  - pT4
  - M1

Intrathyroidal disease

Loco-regional disease

Metastatic disease

ATA guidelines, *Thyroid*, 2009
Estimating the risk at diagnosis

**ATA risk**

- **Low**
  - (n=104)

- **Intermediate**
  - (n=241)

- **High**
  - (n=126)

**Recurrence**

- 0 years: 3%
- 7 years: 18%
- Median time: 66%

Tuttle RM et al, *Thyroid*, 2010
Limits

There are two main factors that can significantly alter the odds of recurrence (and death) over time:

- the clinical course of the disease
- its response to the initial therapy and any interventions performed thereafter
Estimating the *individual* risk

Ongoing revision and refinement of the risk estimate as new data emerge during follow-up
Estimating the ongoing risk

**ATA risk**

- Low (n=104)
- Intermediate (n=241)
- High (n=126)

**Recurrence**

- 0 years: 3%
- 7 years: 66%

Tuttle RM et al, *Thyroid*, 2010
Estimating the ongoing risk

**ATA risk**

- **Low** (n=104)
- **Intermediate** (n=241)
- **High** (n=126)

**Recurrence**

- **No disease**
  - 0 years: 2%
  - 1 year: 2%
  - 7 years: 14%

- ** ATA risk**
  - 0 years: 3%
  - 1 year: 18%
  - 7 years: 66%

Tuttle RM et al, *Thyroid*, 2010
Estimating the ongoing risk

**ATA risk**
- **Low** (n=104)
- **Intermediate** (n=241)
- **High** (n=126)

**Persistence**
- 3% (13%)
- 18% (41%)
- 66% (79%)

**Time** (yrs; median)

Tuttle RM et al, *Thyroid*, 2010
Clinical cases

- **Histology**: PTC, classic variant, 12 mm
  pT1b, Nx – Stage I
  51 yrs

- **Histology**: PTC, follicular variant, 18 mm, extrathyroidal extension, 6 out of 21 metastatic lymph nodes
  pT3, N1a – Stage III
  63 yrs

**ISSUES**

- Risk at diagnosis (ATA risk): LOW (3%)
- 1-yr follow-up visit: no evidence of disease
- Risk at diagnosis (ATA risk): INTERMEDIATE (18%)
- 1-yr follow-up visit: no evidence of disease
ISSUES

- Risk at diagnosis (ATA risk): LOW (3%)
- Risk reassessment (1-yr F-up): LOW (2%)

- Risk at diagnosis (ATA risk): INTERMEDIATE (18%)
- Risk reassessment (1-yr F-up): LOW (2%)

Clinical cases

- **Histology:** PTC, classic variant, 12 mm pT1b, Nx – Stage I
  
  - 51 yrs

- **Histology:** PTC, follicular variant, 18 mm, extrathyroidal extension, 6 out of 21 metastatic lymph nodes pT3, N1a – Stage III
  
  - 63 yrs
Time to recurrence

Do they require lifelong follow-up?

Early follow-up

Late follow-up

0  2-3  12  months
Time to recurrence

The 1990s (1077 pts)


The 2010s (1020 pts)

- Durante et al., JCEM, 2013

Yrs after initial therapy

N. of recurrences

<5 yrs: 77%
Today we are moving toward increasingly individualized, risk-tailored diagnostic/therapeutic protocols

Tailoring management strategies to individual risk can increase the cost-effectiveness of care and in many cases improve the patient’s quality of life