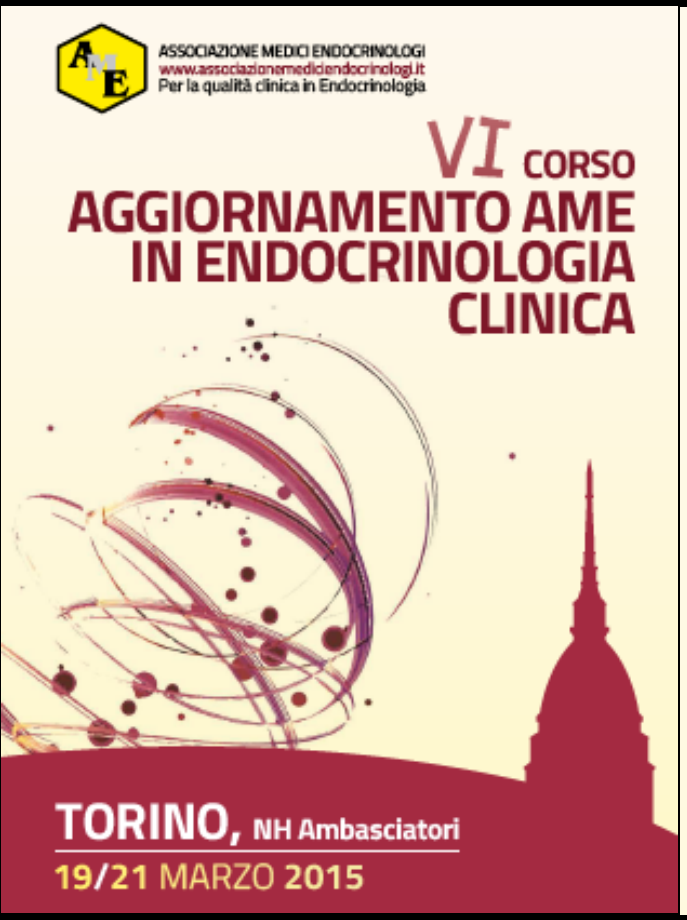


CHIRURGIA CONSERVATIVA PER IL CARCINOMA TIROIDEO. PERCHÉ? E PERCHÉ NO? MA SOPRATTUTTO: QUANDO?

Moderatore: Paolo Limone (Torino)

16:45 **Gli orientamenti attuali**
Enrico Papini (Albano Laziale)

17:15 **Perché pensare ad una chirurgia conservativa di primo approccio**
Davide Giordano (Reggio Emilia)

17:45 **Lavoro a piccoli gruppi**
I gruppi definiscano i criteri per pianificare sin dall'inizio una chirurgia conservativa per carcinoma tiroideo differenziato
Tutor dei gruppi: Maurilio Deandrea (Torino), Lino Furlani (Negrar), Alessandro Piovesan (Torino)

19:00 **Lavoro a piccoli gruppi**
Condivisione dei risultati e proposta operativa
Michele Corradini Zini (Reggio Emilia)

AIMS of the TREATMENT

ATA 2009

The goals of initial therapy of DTC are:

1. To remove the primary tumor, disease that has extended beyond the thyroid capsule, and involved cervical lymph nodes
2. To minimize treatment-related morbidity. The extent of surgery and the experience of the surgeon both play important roles in determining the risk of surgical complications
3. To permit accurate staging of the disease

AIMS of the TREATMENT

ATA 2009

4. To facilitate postoperative treatment with radioactive iodine, where appropriate. For patients undergoing RAI remnant ablation, or RAI treatment of residual or metastatic disease, removal of all normal thyroid tissue is an important element of initial surgery
5. To permit accurate long-term surveillance for disease recurrence. Both RAI whole-body scanning (WBS) and measurement of serum Tg are affected by residual normal thyroid tissue
6. To minimize the risk of disease recurrence and metastatic spread.

INITIAL SURGICAL TREATMENT for DTC

ATA 2009

- **RECOMMENDATION 26**

  For patients with thyroid cancer >1 cm, the initial surgical procedure should be a near-total or total thyroidectomy unless there are contraindications to this surgery. Thyroid lobectomy alone may be sufficient treatment for small (<1 cm), low-risk, unifocal, intrathyroidal papillary carcinomas in the absence of prior head and neck irradiation or radiologically or clinically involved cervical nodal metastases. Recommendation rating: A

INITIAL SURGICAL TREATMENT for DTC

ETA 2006

Apart from solitary well differentiated thyroid cancer

- less than 1 cm in diameter
- with no evidence for nodal or distant metastases
- and no history of previous radiation exposure

that may be operated on by less than total thyroidectomy

the standard surgical treatment is total (or near-total) thyroidectomy.

INITIAL SURGICAL TREATMENT for DTC

NCCN 2013

PREOPERATIVE OR INTRAOPERATIVE DECISION-MAKING CRITERIA

Indications for total thyroidectomy (any present):

- Age < 15 y or > 45 y[c]
- Radiation history
- Known distant metastases
- Bilateral nodularity
- Extrathyroidal extension
- Tumor > 4 cm in diameter
- Cervical lymph node metastases
- Aggressive variant[d]

→

Indications for total thyroidectomy or lobectomy, if all present:

- Age 15 y - 45 y[c]
- No prior radiation
- No distant metastases
- No cervical lymph node metastases
- No extrathyroidal extension
- Tumor < 4 cm in diameter
- No aggressive variant[d]

→

INITIAL SURGICAL TREATMENT for DTC

ESMO 2013

The initial treatment of DTC is total or near-total thyroidectomy whenever the diagnosis is made before surgery.

Less extensive surgical procedures may be accepted in the case of unifocal DTC diagnosed at final histology after surgery performed for benign thyroid disorders, provided that the tumor is

- small
- intrathyroidal
- of a favorable histological type (classical papillary or follicular variant of papillary or minimally invasive follicular)

INITIAL SURGICAL TREATMENT for DTC

ATA 2015 – preliminary draft

B) For patients with thyroid cancer >1 cm and <4 cm without extrathyroidal extension, and without clinical evidence of any lymph node metastases (cN0), the initial surgical procedure can be either a bilateral procedure (near-total or total thyroidectomy) or a unilateral procedure (lobectomy). Thyroid lobectomy alone may be sufficient initial treatment for low risk papillary and follicular carcinomas (Strong Recommendation, Moderate-quality evidence)

INITIAL SURGICAL TREATMENT for DTC

ATA 2015 – preliminary draft

C) If surgery is chosen for patients with thyroid cancer <1 cm without extrathyroidal extension and cN0, the initial surgical procedure should be a thyroid lobectomy unless there are clear indications to remove the contralateral lobe. Thyroid lobectomy alone is sufficient treatment for small, unifocal, intrathyroidal carcinomas in the absence of prior head and neck irradiation, familial thyroid carcinoma, or clinically detectable cervical nodal metastases.

THYROID UNIT – REGGIO EMILIA

	LESIONE RICORRENZIALE	LESIONE PARATIROIDEA
TIROIDECTOMIA TOTALE	0.5%	4.5%
LOBECTOMIA TIROIDEA	0.2%	0%

RISK ASSESSMENT
ATA 2009

CLASSI di RISCHIO		
Low-risk patients:	***Intermediate-risk patients*:**	***High-risk patients:***
• no local or distant metastases AND • all macroscopic tumor has been resected AND • there is no tumor invasion of locoregional tissues or structures AND • the tumor does not have aggressive histology or vascular invasion AND • there is no 131I uptake outside the thyroid bed	• microscopic invasion of tumor into the perithyroidal soft tissues at initial surgery OR • cervical lymph node metastases or 131I uptake outside the thyroid bed on the RxWBS done after thyroid remnant ablation OR • tumor with aggressive histology or vascular invasion	• macroscopic tumor invasion; OR • incomplete tumor resection OR • distant metastases OR • thyroglobulinemia out of proportion to what is seen on the posttreatment scan

Definition of risk in DTC: operational settings

1. Pre-surgical setting
   - Patient-related factors: Age/sex – clinical history
   - Tumor-related factors: US and cytological findings

2. Post surgical setting
   - Tumor-related factors: Histological findings
   - Thyroglobulin levels
   - Negative US imaging

3. Post ^{131}I ablative setting
   - Thyroglobulin levels
   - WBS and other imaging studies

Pre-surgical lymph node assessment in DTC: false negative US results

Site of FN US	DTC
All pts	151
FN US	47
Central	43
Ipsilateral	5
Controlateral	3

US sensitivity in detecting central compartment lymph node metastases = 52%

Kouvaraki et al., Surgery 2003 134:946-954

Pitfalls in the pre-surgical prognostic assessment

- US cannot reliably detect extracapsular extension
- US/FNA cannot reliably detect mutifocality
- US cannot reliably detect metastatic lymph nodes in the central compartment
- Cytological examination cannot identify more aggressive DTC variants

	IDENTIFICABILE IN MODO AFFIDABILE IN FASE PRECHIRURGICA		
FATTORI LEGATI AL PAZIENTE	**SEMPRE**	**SOLO A VOLTE**	**MAI**
Età	X		
Sesso	X		
Famigliarità per neoplasia tiroidea	X		
Pregressa radioterapia sul collo	X		
FATTORI LEGATI AL TUMORE			
Dimensioni	X		
Multifocalità		X	
Bilateralità		X	
Variante istologica aggressiva			X
Metastasi linfatiche		X	
Estensione extratiroidea			X

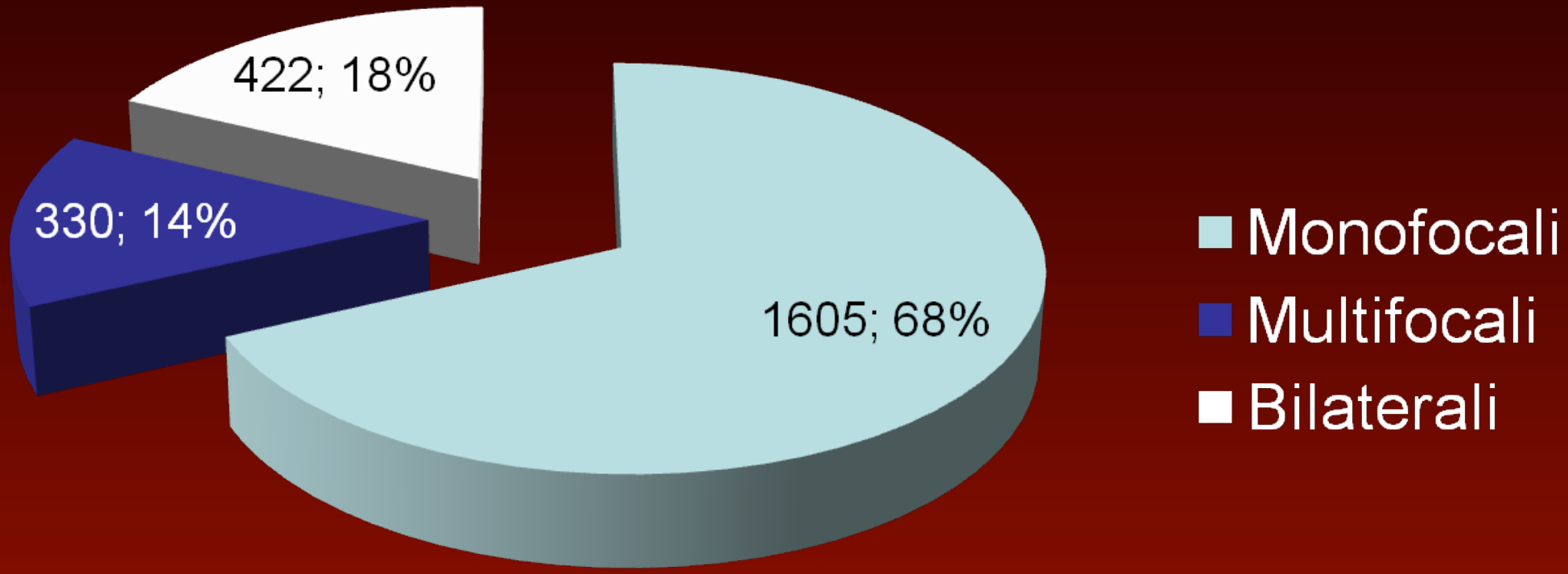
Papillary thyroid carcinoma: histological variety and prognosis

Histologic variant	Tumor disease mortality (%)
Well-differentiated	3.8
Follicular	4.4
Diffuse sclerosis	-
Solid	66.7
Tall cell	55.6
Poorly differentiated	83.3

Ortiz Sebastian et al., Arch Surgery, 2000

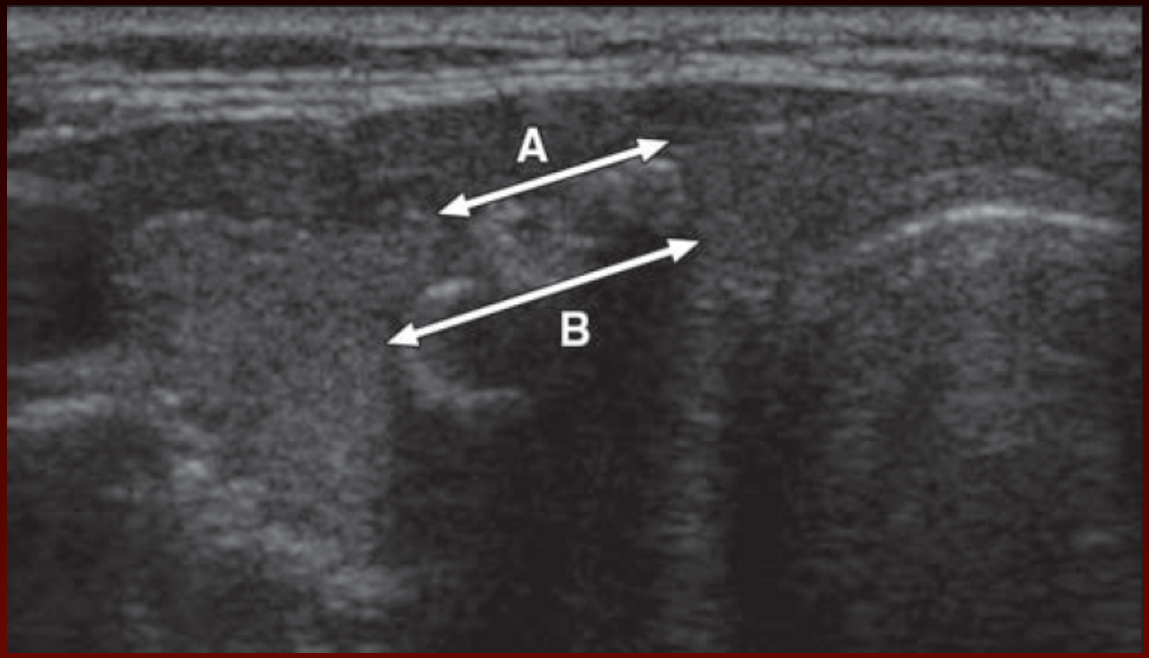
CARCINOMI PAPILLARI: MULTIFOCALITA' – BILATERALITA'

Thyroid Unit Reggio Emilia



ESTENSIONE EXTRATIROIDEA: VALUTAZIONE ECOGRAFICA

Park JS et al., AJR 192: 66-72, 2009



Relationships between tumor and thyroid capsule were classified according to the degree of capsular abutment using the following 5-point scale (from 0 to 4):

0: 0% of tumor abuts thyroid capsule;

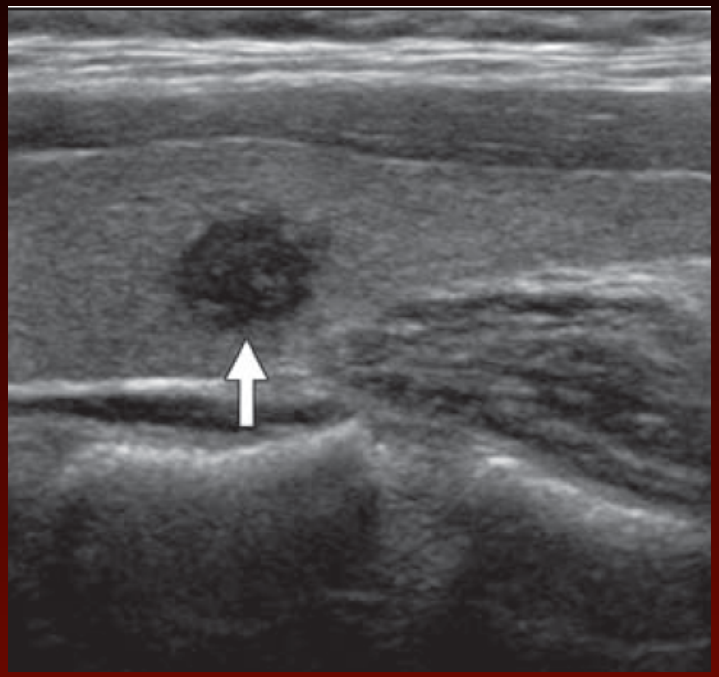
1: 1–25%; 2: 26–50%;

3: 51–75%; 4: 76–100%

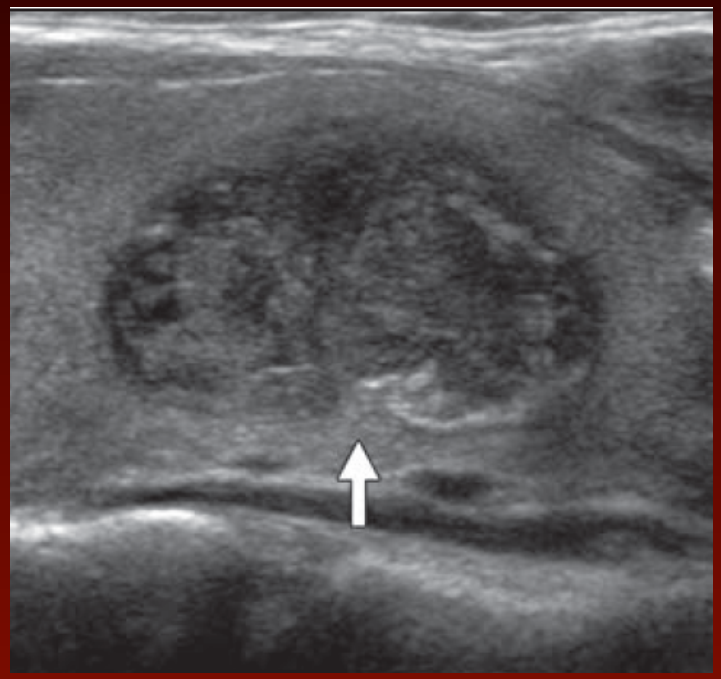
Higher scores reflect a higher possibility of extrathyroidal invasion.

ESTENSIONE EXTRATIROIDEA: VALUTAZIONE ECOGRAFICA

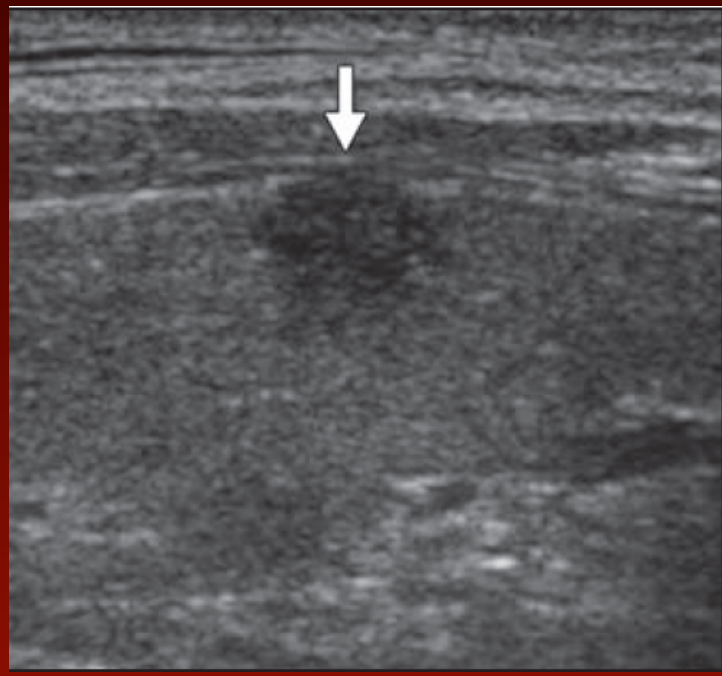
Park JS et al., AJR 192: 66-72, 2009



"uT1"



"uT2"



"uT3"

CHIRURGIA CONSERVATIVA DI PRIMA LINEA PER CARCINOMA TIROIDEO: PROPOSTA OPERATIVA

Thyroid Unit Reggio Emilia

Proposta operativa

Sarà proposta la lobectomia tiroidea ad un paziente con diagnosi preoperatoria di carcinoma tiroideo papillare quando si verificano tutte le seguenti condizioni:

- diametro del tumore < 1 cm.
- assenza di lesioni nodulari del lobo controlaterale
- non evidenza ecografica di metastasi linfatiche (stadi azione ecografica N_0)
- assenza di sospetto ecografico di estensione extracapsulare (assieme alla prima condizione, ciò configura la stadiazione ecografica T_{1a})
- assenza di pregressa terapia radiante in regione cervicale.
- non evidenza di metastasi a distanza

CHIRURGIA CONSERVATIVA DI PRIMA LINEA PER CARCINOMA TIROIDEO: PROPOSTA OPERATIVA

Thyroid Unit Reggio Emilia

Non vengono considerati: età, sesso, stato mutazione BRAF, famigliarità.

Nel caso l'esame istologico definitivo rilevi presenza di metastasi linfatiche, varianti istologiche aggressive o estensione extracapsulare si considererà la totalizzazione di tiroidectomia con la successiva terapia adiuvante/ablativa con radioiodio.

In caso di multifocalità, la decisione sarà assunta di volta in volta.

PROPOSTA OPERATIVA THYROID UNIT REGGIO EMILIA

- Sospetta plurifocalità, sconfinamento capsulare
- Nodularità lobo controlaterale
- Pregressa irradiazione cervicale
- cN+

PRESUNTO BASSO RISCHIO PREOPERATORIO

- <1 cm. unifocale ed intratiroideo
- Regolare ecostruttura lobo controlaterale
- Non pregressa irradiazione cervicale
- cN0

- Tiroidectomia totale
- Linfadenectomia pre-paratracheale ipsilaterale

- **LOBECTOMIA TIROIDEA**
- **LINFOADENECTOMIA PRE-PARATRACHEALE IPSILATERALE**

pN0 ← Estemporaneo su linfadenectomia → pN0

Istologia definitiva

pN+

pN+

Istologia definitiva

Basso rischio

Contestuale linfadenectomia paratracheale controlaterale

Contestuale completamento tiroideo e linfonodale

Basso rischio

Medio/Alto rischio

Medio/Alto rischio

Eventuale RAI

Completamento T (/ N) differito

Follow up