Peut-on vraiment re-classifier les carcinomes papillaires de forme vésiculaire encapsulés (NIFT-P) en catégorie bénigne ?

Nathalie CHEREAU,

10 Juin 2017

CLUB THYROÏDE
ILE DE FRANCE

Une nouvelle entité histologique…

- Augmentation de l'incidence (x 3 depuis 20 ans) du sous groupe de carcinomes papillaires de forme vésiculaire encapsulés

- 10-20% des cancers thyroïdiens (reclassification de >45.000 patients/an dans le monde)

Source	Setting/ Location	Time interval	Total number of PTC	FVPTC (% of all PTC)	EFVPTC (% of all PTC)
Chan KJ et al., *J Clin Endocrinol Metab* 99:E276-E285, 2014	University of Pittsburgh, PA, USA	1974-1992	186	8.1%	4.8%
		2009	230	25.2%	16.1%
Lupi et al., *J Clin Endocrinol Metab* 92:4085-4090, 2007	University of Pisa, Pisa, Italy	2006	500	22.8%	10.4%
R. Ghossein, *unpublished*	MSKCC, New York, USA	1977-1999	615	20.0%	14.3%
		2000-2003	303	27.7%	23.4%

PTC, papillary thyroid carcinoma; FVPTC, follicular variant of PTC; EFVPTC, encapsulated follicular variant of PTC

Source	Parameter	Value	Result
Ferlay J. et al (2012)[1]	Total number of new cases of thyroid cancer worldwide	298,000	298,000
Aschebrook-Kilfoy B. et al. (2011)[2]	Percentage of papillary thyroid carcinoma (PTC) among all thyroid carcinomas	84%	250,320
Estimation based on unpublished data[3]	Percentage of encapsulate follicular variant of PTC with no invasion among all PTC	18.6%	**46,560**

Nikiforov et al.

JAMA Oncology 2016

2015 American Thyroid Association Management Guidelines for Adult Patients with Thyroid Nodules and Differentiated Thyroid Cancer

The American Thyroid Association Guidelines Task Force on Thyroid Nodules and Differentiated Thyroid Cancer

(B) Histopathologic variants of thyroid carcinoma associated with more unfavorable outcomes (e.g., tall cell, columnar cell, and hobnail variants of PTC; widely invasive FTC; poorly differentiated carcinoma) or more favorable outcomes (e.g., encapsulated follicular variant of PTC without invasion, minimally invasive FTC) should be identified during histopathologic examination and reported.

In the absence of these features, a completely excised noninvasive encapsulated follicular variant of papillary carcinoma is expected to have a very low risk of recurrence or extrathyroidal spread, even in patients treated by lobectomy.

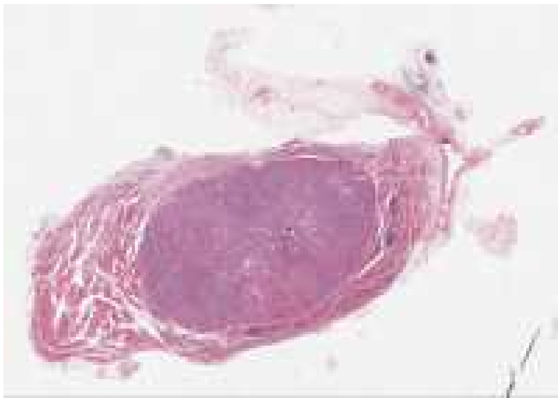
Une nouvelle entité histologique…

Original Investigation
Nomenclature Revision for Encapsulated Follicular Variant of Papillary Thyroid Carcinoma
A Paradigm Shift to Reduce Overtreatment of Indolent Tumors

Nikiforov et al. JAMA Oncology 2016

- **Problème posé**: 352 cas décrits **dans la littérature**, dont 2 cas de récidives (0,6%) *mais nodule non inclus en totalité et critères retenus discutables…*

- **Etude multicentrique (13 centres): étude rétrospective,** comparative avec relecture de 268 tumeurs classées carcinomes papillaires de forme vésiculaire encapsulés



Original Investigation

Nomenclature Revision for Encapsulated Follicular Variant of Papillary Thyroid Carcinoma

A Paradigm Shift to Reduce Overtreatment of Indolent Tumors

Nikiforov et al. JAMA Oncology 2016

- **2 groupes**
  - **- encapsulé ou bien limité (non invasif)** ***n=138***

> - tumor size >1 cm
> - no vascular or capsular invasion on adequate tumor sampling, i.e. reasonable confidence that entire tumor capsule was examined
> - no other invasive tumors in the gland except single small microcarcinoma
> - **no RAI treatment**
> - **at least 10 years of follow-up**.

  - \- **invasif** ***n=130***

Original Investigation

Nomenclature Revision for Encapsulated Follicular Variant of Papillary Thyroid Carcinoma

A Paradigm Shift to Reduce Overtreatment of Indolent Tumors

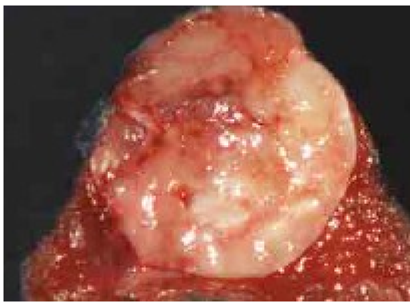
Nikiforov et al. JAMA Oncology 2016

Table. Summary of Follow-up Information for Patients in the Study Groups

Characteristic	Group 1 (Noninvasive EFVPTC) (n = 109)	Group 2 (Invasive EFVPTC) (n = 101)
Age, mean (range), y	45.9 (21-81)	42.8 (8-78)
Sex, No. (%)		
Female	91 (83)	71 (70)
Male	18 (17)	30 (30)
Tumor size, mean (range), cm	3.1 (1.1-9.0)	2.5 (0.6-5.5)
Extent of surgery		
Lobectomy	67	15
Total thyroidectomy	42	86
Follow-up, y		
Mean (range)	14.4 (10-26)	5.6 (1-18)
Median	13.0	3.5
Adverse events during follow-up, No. (%)	0	12 (12)

AUCUNE RECIDIVE

5 métastases à distance
2 décès



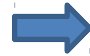
Original Investigation

Nomenclature Revision for Encapsulated Follicular Variant of Papillary Thyroid Carcinoma

A Paradigm Shift to Reduce Overtreatment of Indolent Tumors

Nikiforov et al.

JAMA Oncology 2016



Définition de critères histologiques NIFTP (NON INVASIVE FOLLICULAR THYROID NEOPLASMS WITH PAPILLARY-LIKE NUCLEAR FEATURES) / TUMEUR à très faible risque ne pouvant pas s'associer aux cancers….

Box 1. Consensus Diagnostic Criteria for the Encapsulated Follicular Variant of Papillary Thyroid Carcinoma (EFVPTC)

Major Features

Encapsulation or clear demarcation

Follicular growth pattern

Nuclear features of papillary thyroid carcinoma (PTC)[a]:

- Enlargement, crowding/overlapping
- Elongation
- Irregular contours
- Grooves
- Pseudoinclusions[b]
- Chromatin clearing[c]

Minor Features

Dark colloid

Irregularly shaped follicles

Intratumoral fibrosis

"Sprinkling" sign[d]

Follicles cleft from stroma[d]

Multinucleated giant cells within follicles

Features Not Seen/Exclusion Criteria

"True" papillae[e] >1%

Psammoma bodies

Infiltrative border

Tumor necrosis

High mitotic activity[f]

Cell/morphologic characteristics of other variants of PTC[g]

Box 2. Diagnostic Criteria for NIFTP

1. Encapsulation or clear demarcation[a]
2. Follicular growth pattern[b] with
   <1% Papillae
   No psammoma bodies
   30% Solid/trabecular/insular growth pattern
3. Nuclear score 2-3
4. No vascular or capsular invasion[c]
5. No tumor necrosis
6. No high mitotic activity[d]

[a] Thick, thin, or partial capsule or well circumscribed with a clear demarcation from adjacent thyroid tissue.

[b] Including microfollicular, normofollicular, or macrofollicular architecture with abundant colloid.

[c] Requires adequate microscopic examination of the tumor capsule interface.

[d] High mitotic activity defined as at least 3 mitoses per 10 high-power fields (400×).

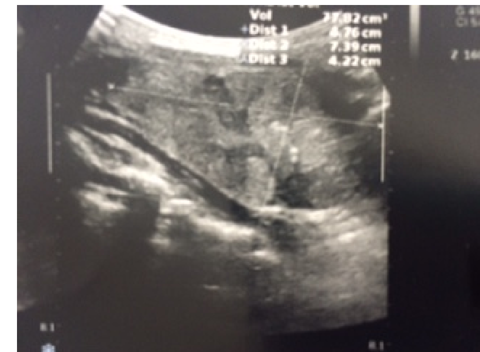
Cas Clinique
Mr P, 57ans

Pas d'atcd

Découverte sur dyspnée croissante et gêne cervicale d'un nodule thyroïdien droit

Euthyroidie (TSH 1,5; T4 0,9)

- *Echographie : nodule 6 cm thyroïdien droit TIRADS 4, lobe gauche non nodulaire, uN0*



- *Cytoponction:* folliculaire non colloïde

LOBO-ISTHMECTOMIE THYROÏDIENNE DROITE

- **Examen extemporané**

  « lésion densément cellulaire, avec irrégularités nucléaires, attendre définitif »

- Suites simples, sortie J1

Examen anatomopathologique définitif

- Poids de la pièce 53,2 g

- Nodule de 6cm inclus en totalité:

- **carcinome papillaire de type vésiculaire encapsulé, occupant tout le lobe, mesurant 6 cm, circonscrit par une condensation fibreuse, n’infiltrant pas le tissu adipeux péri-thyroïdien, n’exprimant pas BRAFV600E**
- **Absence d'extension extra-thyroïdienne. Absence d'embole tumoral**
- **pT3 Nx (7ème édition 2010 version longue)**

QUE DECIDER EN RCP?

1- Totalisation chirurgicale
2- Surveillance
3- Totalisation chirurgicale et curage ggr
4- Totalisation chirurgicale et curage ggr
puis Iodothérapie

Le pathologiste a-t-il la solution ?

Dr Béatrix COCHAND PRIOLLET

Aspects échographiques d’un NIFT-P,

Dr Gilles RUSS