Ganglion sentinelle et mélanome

1ère JFMN, La Rochelle, 2015

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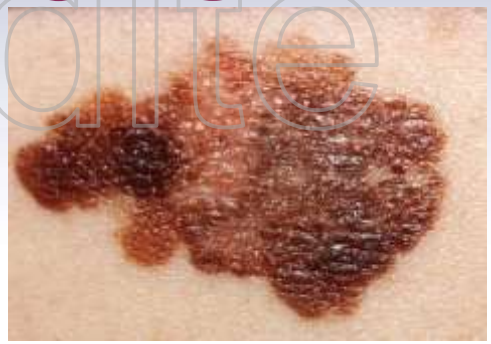
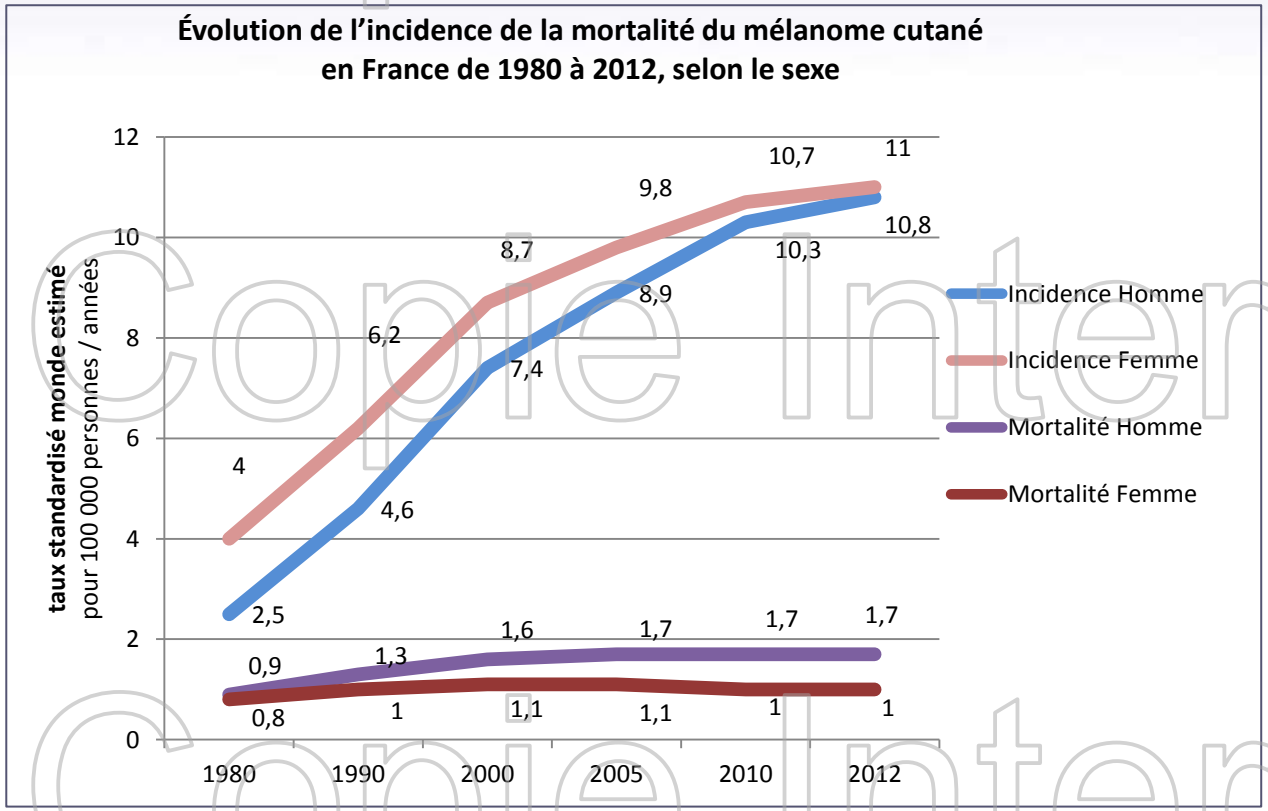
Ganglion sentinelle et mélanome

- **Introduction**
- Indications
- Technique
- Résultats
- Perspectives

Ganglion sentinelle et mélanome

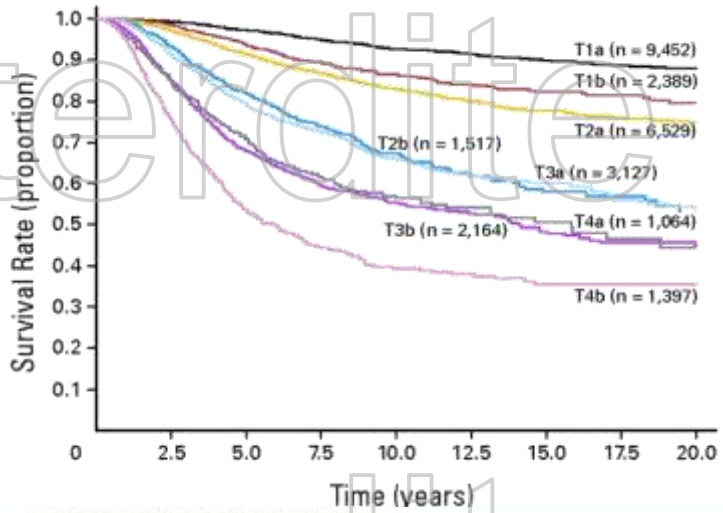




[1]Les cancers en France. Les données. INCa ed.: 2015.

Ganglion sentinelle et mélanome

Classification			
T	Epaisseur (mm)	Ulcération / index mitotique	Stade
Tis	Non applicable		
T1	≤ 1,00	a : pas d'ulcération et index mitotique <1/mm² b : présence d'ulcération ou index mitotique >1/mm²	I
T2	1,01-2,00	a : pas d'ulcération b : présence d'ulcération	II
T3	2,01-4,00	a : pas d'ulcération b : présence d'ulcération	III
T4	>4,00	a : pas d'ulcération b : présence d'ulcération	
N	Nombre de ganglions envahis	Charge tumorale	
N0	0		
N1	1	a : découvert sur le ganglion sentinelle b : détectable cliniquement	
N2	2-3	a : découvert sur le ganglion sentinelle b : détectable cliniquement c : métastase satellite ou en transit, sans envahissement ganglionnaire	
N3	>3 ou métastase satellite ou en transit, associée à un envahissement ganglionnaire		
M	Site	Taux de LDH	IV
M0	Absence de métastase à distance	Non applicable	
M1a	Métastase cutanée ou sous cutanée à distance, envahissement ganglionnaire à distance	Normal	
M1b	Métastase pulmonaire	Normal	
M1c	Toute autre métastase viscérale	Normal	
	Toute métastase	Élevé	



[2]


JOURNAL OF CLINICAL ONCOLOGY ORIGINAL REPORT

Final Version of 2009 AJCC Melanoma Staging and Classification

Charles M. Balch, Jeffrey E. Gershenwald, Seng-jaw Soong, John F. Thompson, Michael B. Atkins, David R. Byrd, Antonio C. Buzaid, Alistair J. Cochran, Daniel G. Coit, Shoshana Ding, Alexander M. Eggermont, Keith T. Flaherty, Phyllis A. Gimotty, John M. Kirkwood, Kelly M. McMasters, Martin C. Mihm Jr, Donald L. Morton, Merrick I. Ross, Arthur J. Sober, and Vernon K. Sondak

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	Toute métastase	Élevé

Stade

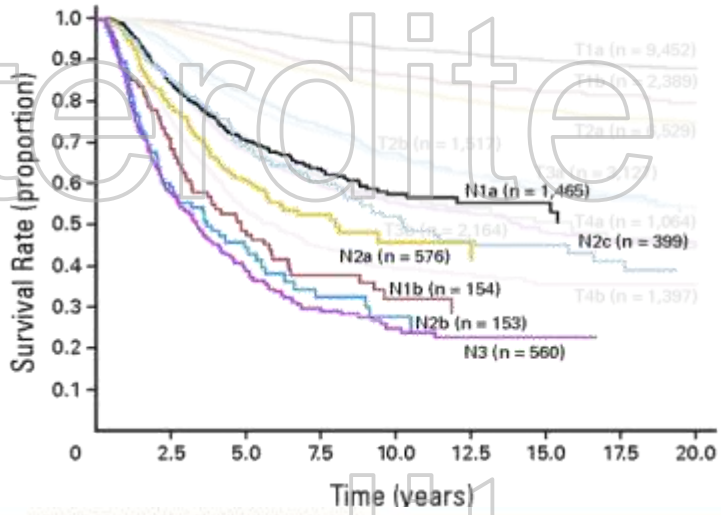
I

II

III

IV

Ganglionnaire



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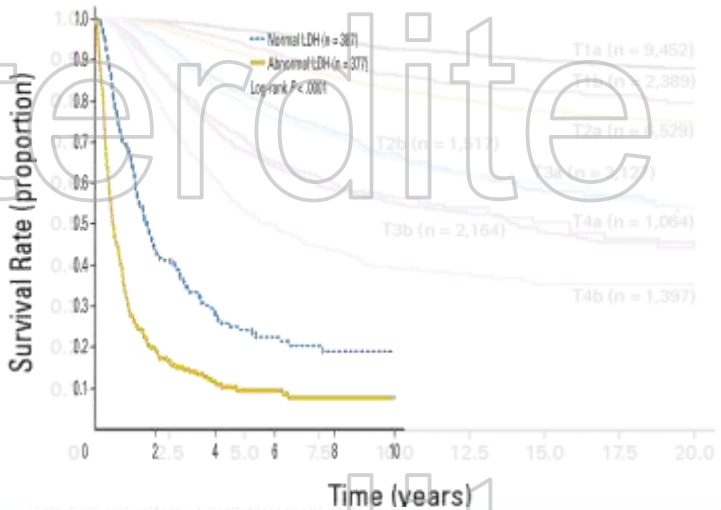
M1b	Métastase pulmonaire	Normal	
M1c	Toute autre métastase viscérale	Normal	
	Toute métastase	Élevé	

Extra-Ganglionnaire



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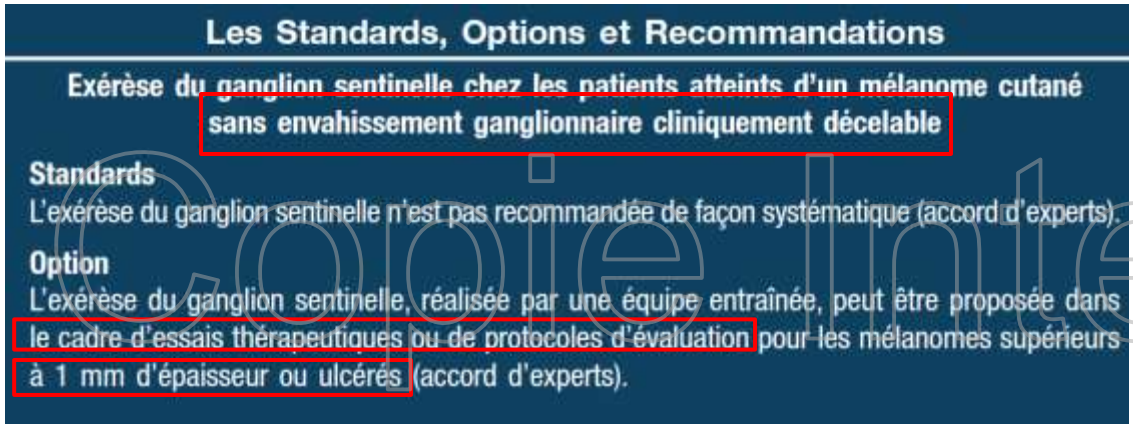
Ganglion sentinelle et mélanome

- SOR 2005



Les Standards, Options et Recommandations

Exérèse du ganglion sentinelle chez les patients atteints d'un mélanome cutané sans envahissement ganglionnaire cliniquement décelable

Standards

L'exérèse du ganglion sentinelle n'est pas recommandée de façon systématique (accord d'experts).

Option

L'exérèse du ganglion sentinelle, réalisée par une équipe entraînée, peut être proposée dans le cadre d'essais thérapeutiques ou de protocoles d'évaluation pour les mélanomes supérieurs à 1 mm d'épaisseur ou ulcérés (accord d'experts).

Recommandations 2005

Prise en charge des patients adultes atteints d'un mélanome cutané MO

Recommandations pour la Pratique Clinique : Standards, Options et Recommandations 2005 pour la prise en charge des patients adultes atteints d'un mélanome cutané MO [3]

Texte court

S. Négrier, P. Saiag, B. Guillot, O. Verola, M.-F. Avril, C. Bailly, D. Cupissol, S. Dalac, A. Danino, B. Dreno, J.-J. Grob, M.-T. Leccia, C. Renaud-Vilmer, L. Bosquet

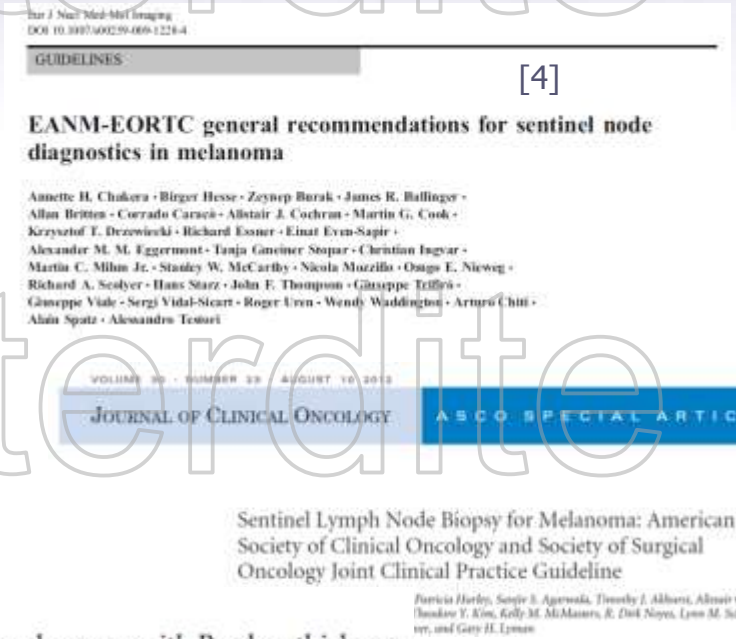
- EANM 2009
- ASCO 2012

Ganglion sentinelle et mélanome

- SOR 2005
- EANM 2009

In light of the above-mentioned evidence, it is recommended that patients diagnosed with melanoma in clinical *stage T1b–T4b, N0 and M0* should be given an option of SNB.

- ASCO 2012



Eur J Nucl Med Mol Imaging
DOI 10.1007/s00259-009-1224-4

GUIDELINES

[4]

EANM-EORTC general recommendations for sentinel node diagnostics in melanoma

Annette H. Chakera · Birger Hesse · Zeynep Burak · James R. Ballinger · Allan Britten · Corrado Caracò · Alistair J. Cochran · Martin G. Cook · Krzysztof T. Drzewiecki · Richard Essner · Einat Even-Sapir · Alexander M. M. Eggermont · Tanja Gneiner Stopar · Christian Ingvar · Martin C. Mihm Jr. · Stanley W. McCarthy · Nicola Mozzillo · Otmgs E. Nieweg · Richard A. Scolyer · Hans Starz · John F. Thompson · Giuseppe Trifirò · Giuseppe Viale · Sergi Vidal-Sicart · Roger Uren · Wendy Waddington · Arturo Chiti · Alain Spatz · Alessandro Testori

JOURNAL OF CLINICAL ONCOLOGY ASCO SPECIAL ARTICLE

Sentinel Lymph Node Biopsy for Melanoma: American Society of Clinical Oncology and Society of Surgical Oncology Joint Clinical Practice Guideline [5]

Patricia Hartge, Sanjiv S. Agarwala, Timothy J. Akhurst, Alistair Cochran, Theodore Y. Kim, Kelly M. McMasters, R. Dirk Noyes, Lynn M. Schuchter, ver, and Gary H. Lyman

Key Recommendations

- Intermediate-thickness melanomas: SLN biopsy is recommended for patients with cutaneous melanomas with Breslow thickness of 1 to 4 mm at any anatomic site
- Thick melanomas: SLN biopsy may be recommended for staging purposes and to facilitate regional disease control for patients with melanomas that are T4 or > 4 mm in Breslow thickness
- Thin melanomas: There is insufficient evidence to support routine SLN biopsy for patients with melanomas that are T1 or < 1 mm in Breslow thickness, although it may be considered in selected high-risk patients
- Completion lymph node dissection is recommended for all patients with a positive SLN biopsy

Ulcération ou index mitotique élevé

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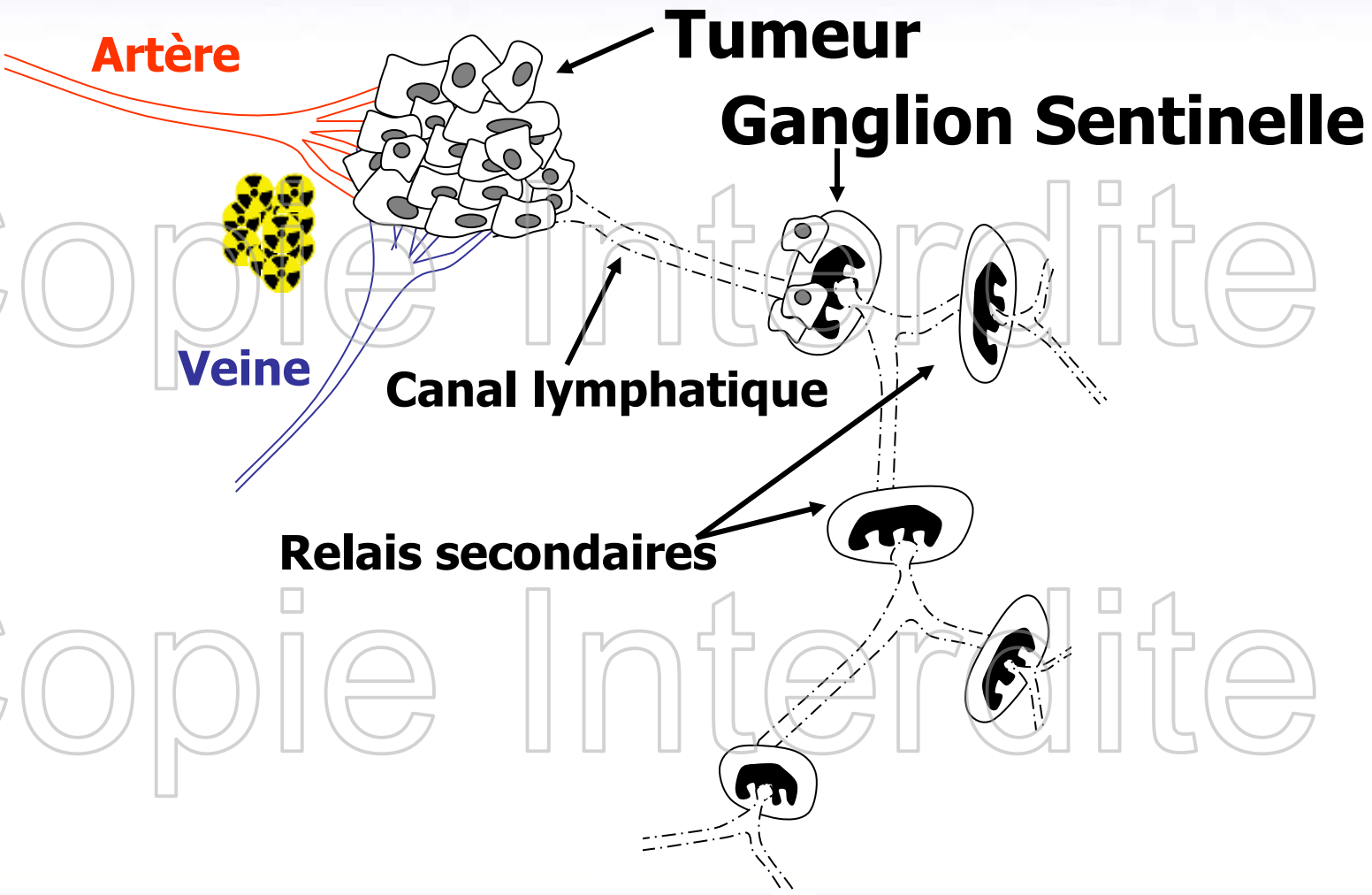
Concept



Technique

Exérèse sans marge réalisée « en ville »

↓

Mélanome confirmé par l'anatomie pathologique
+ épaisseur selon Breslow

↓

Reprise chirurgicale avec marge

➔ technique du GS (la veille ou le matin)

Recommandations 2005 [3]

Prise en charge des patients adultes atteints d'un mélanome cutané MO

Épaisseur de Breslow (classification)	Marges d'exérèse recommandées
Mélanome *in situ* (pTis)	=> 0,5 cm
0-1 mm (Pt1)	=> 1 cm
1,01-2 mm (Pt2)	=> 1-2 cm
2,01-4 mm (Pt3)	=> 2 cm
> 4 mm (Pt4)	=> 2-3 cm

Eur J Nucl Med Mol Imaging (2009) 36:928–937
DOI 10.1007/s00259-008-1036-2

ORIGINAL ARTICLE [6]

One-day or two-day procedure for sentinel node biopsy in melanoma?

A. H. Chakera · J. Lock-Andersen · U. Hesse · B. M. Nürnberg · B. R. Juhl · K. H. Stokholm · K. T. Drzewiecki · B. Hesse

Technique

- Injections intradermiques
- En périphérie de la cicatrice d'exérèse
- Images dynamiques précoces (10 min)

Tableau 3
Images à réaliser obligatoirement (*) ou en option (°) lors de la recherche du GS, en fonction de la topographie du mélanome [4].
Summary of early dynamic imaging or delayed static imaging must (*) or optionally could (°) be performed according to melanoma's localization.

Localisation	Images dynamiques	Images statiques
Tronc	Centrées sur le site d'injection°	Balayage du cou à l'aine* Ou* creux axillaire (antérieur) Aine (antérieur) Tronc (postérieur)
Main et avant-bras	Centrées sur le site d'injection°	Creux axillaire (antérieur)* Cou (antérieur)*
Bras	Centrées sur le site d'injection°	Creux axillaire (antérieur)* Cou (antérieur)* Creux axillaire (profil)*
Membre inférieur	Centrées sur le site d'injection°	Aine (antérieur)* Creux poplité (postérieur)*
Tête et cou	Centrées sur le site d'injection*	Tête et cou (antérieur)* Tête et cou (profil)*

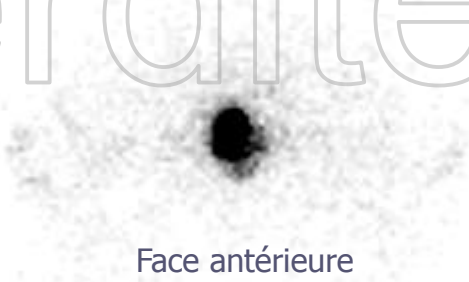
Face antérieure

Face postérieure

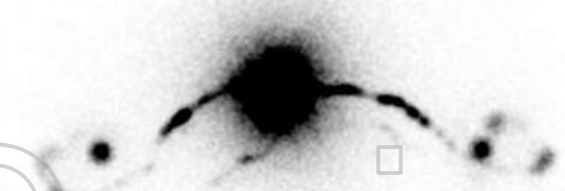
[7] Bourre JC, Brard PY, Charles J, Stella M, Rouet C, Andreani R, Francois-Joubert A. Ganglion sentinelle et mélanome Med Nucl 2013; 39:339-347

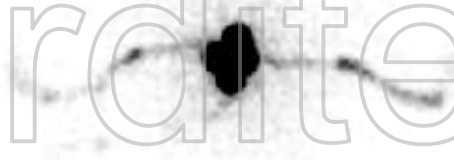
Technique

- Images statiques précoces (5 min/image)
  - Dès que le (les) GS est (sont) identifié(s)
  - +/- clichés tardifs



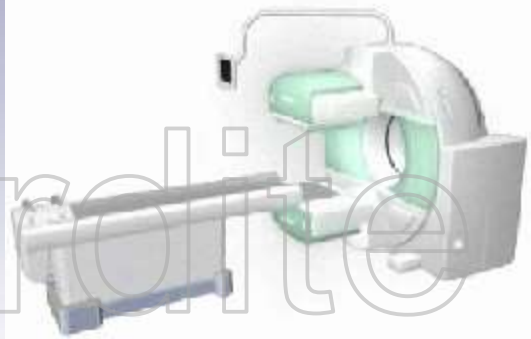
Face antérieure



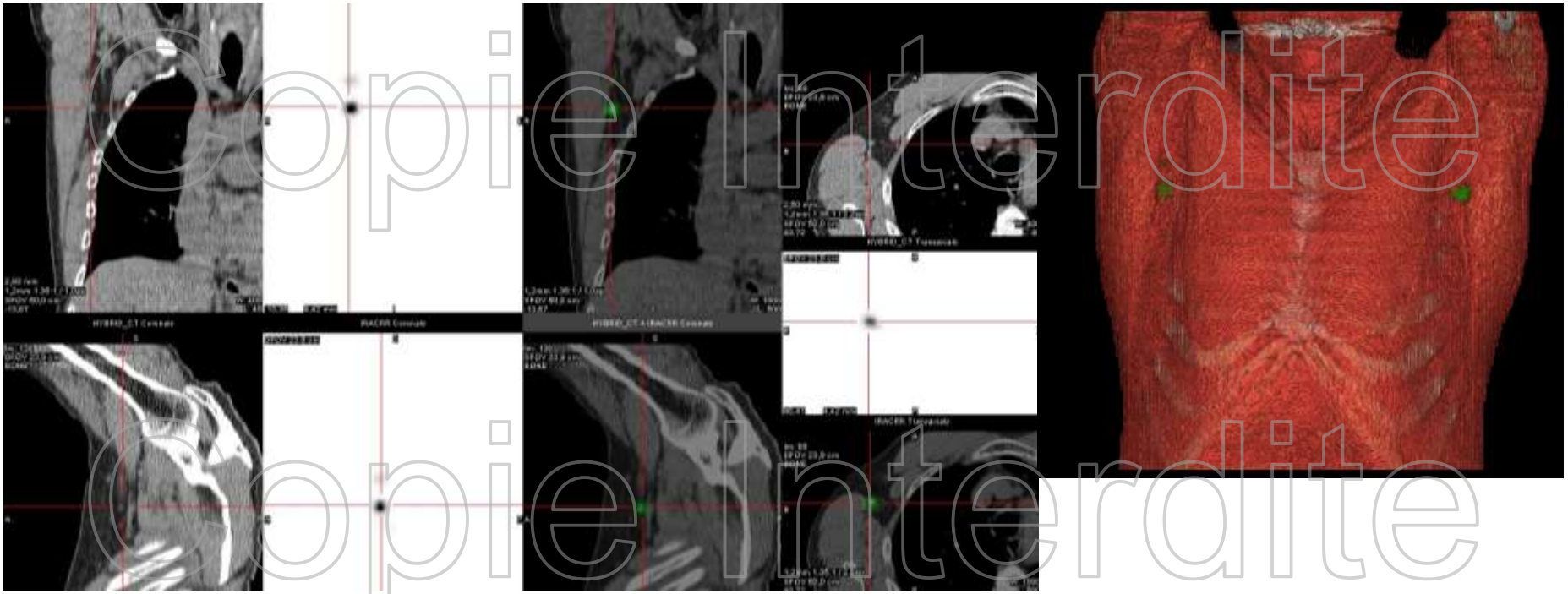


Face postérieure

Technique : TEMP-TDM



- Tomoscintigraphie couplée au scanner X (TEMP-TDM)

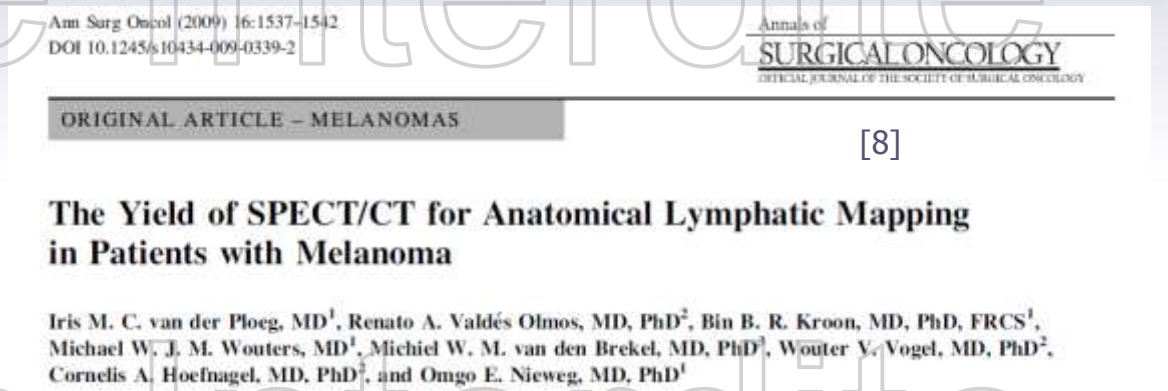


Technique : TEMP-TDM

- Intérêt de la TEMP-TDM
  - Augmentation de la sensibilité de détection
  - Augmentation de la spécificité
  - Modifie le geste chirurgical
  - Coût efficace
  - Améliore la survie sans récidive ?

TEMP-TDM
Augmente la sensibilité

- N=85
  - Membre 41
  - Tronc 31
  - Tête et cou 14



Ann Surg Oncol (2009) 16:1537–1542
DOI 10.1245/s10434-009-0339-2

Annals of SURGICAL ONCOLOGY
OFFICIAL JOURNAL OF THE SOCIETY OF SURGICAL ONCOLOGY

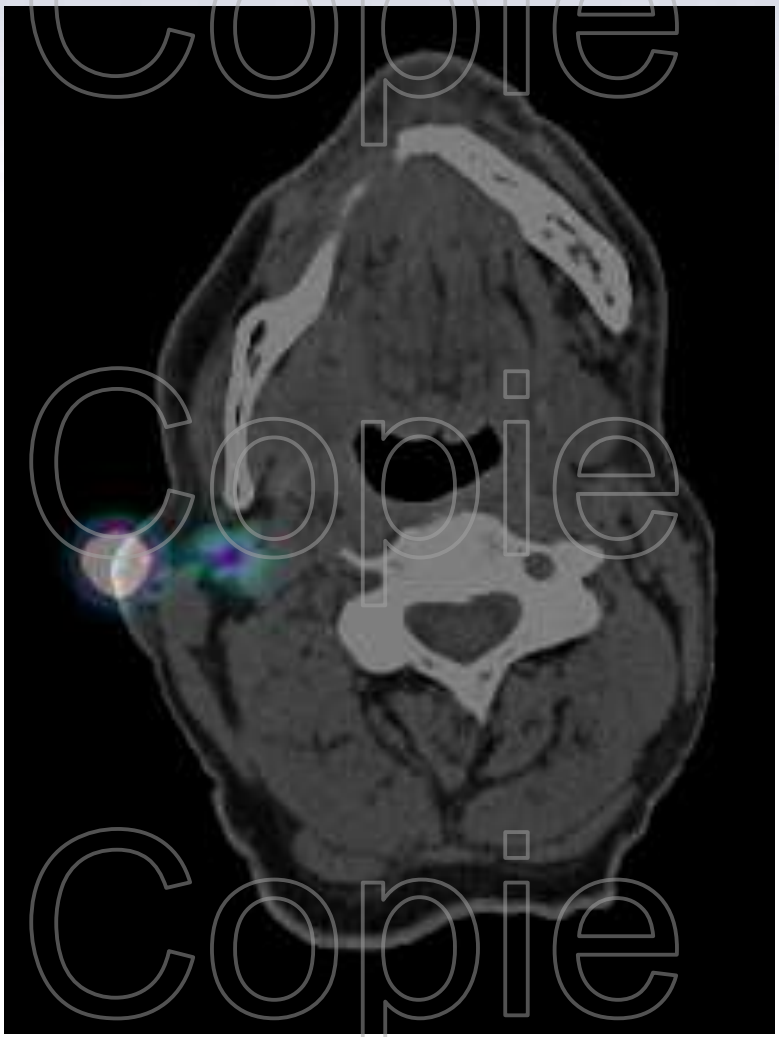
ORIGINAL ARTICLE – MELANOMAS

[8]

The Yield of SPECT/CT for Anatomical Lymphatic Mapping in Patients with Melanoma

Iris M. C. van der Ploeg, MD[1], Renato A. Valdés Olmos, MD, PhD[2], Bin B. R. Kroon, MD, PhD, FRCS[1], Michael W. J. M. Wouters, MD[1], Michiel W. M. van den Brekel, MD, PhD[3], Wouter V. Vogel, MD, PhD[2], Cornelis A. Hoefnagel, MD, PhD[2], and Omgo E. Nieweg, MD, PhD[1]

- +8% de GS identifiés (226 vs 214)
  - Correction de l'atténuation
  - Meilleur rapport signal sur bruit
  - Proximité des sites d'injection
- 14% GS **envahis** n'étaient vus qu'en TEMP-TDM
- + séméiologie TDM en cas de GNS suspect



Images F. Gimmarile

TEMP-TDM
Augmente la spécificité

- N=113
  - Membre 54
  - Tronc 55
  - Tête et cou 4
- Spécificité
  - Précision anatomique
  - Faux positifs
    - Contamination
    - Trajet tortueux

VIA MEDICA
Nuclear Medicine Review 2012, 15, 2: 101–107
10.5603/NMR.2012.0003
Copyright © 2012 Via Medica
ISSN 1506–9680
Original

Localisation of sentinel lymph nodes in patients with melanomas by planar lymphoscintigraphic and hybrid SPECT/CT imaging

[9]

Otakar Kraft[1], Martin Havel[2]
[1]Clinic of Nuclear Medicine, University Hospital of Ostrava, Ostrava, Czech Republic
[2]Department of Imaging Methods, Faculty of Medicine, University of Ostrava, Ostrava, Czech Republic

tients. Planar images identified 253 SLNs in 100 (88.5%) pts, with a mean of 2.2 ± 1.7 (range 0–9 nodes) per patient. In the remaining 13 (11.5%) patients no SLNs were detected on planar images. On SPECT-CT images, 334 hot nodes were detected in 107 (94.7%) patients with a mean of 3.0 ± 2.1 (range 0–9)

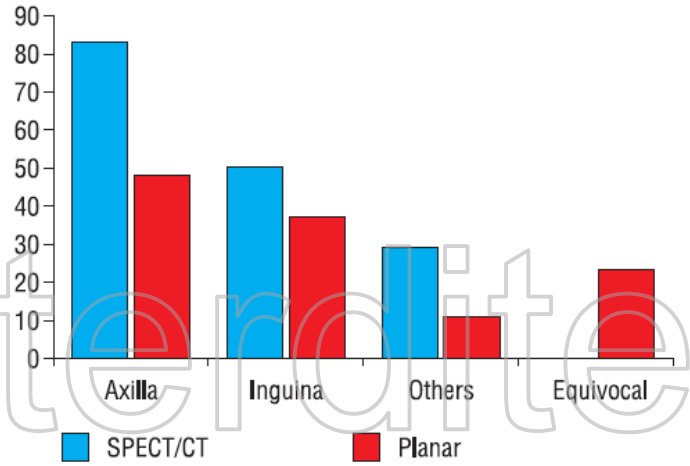
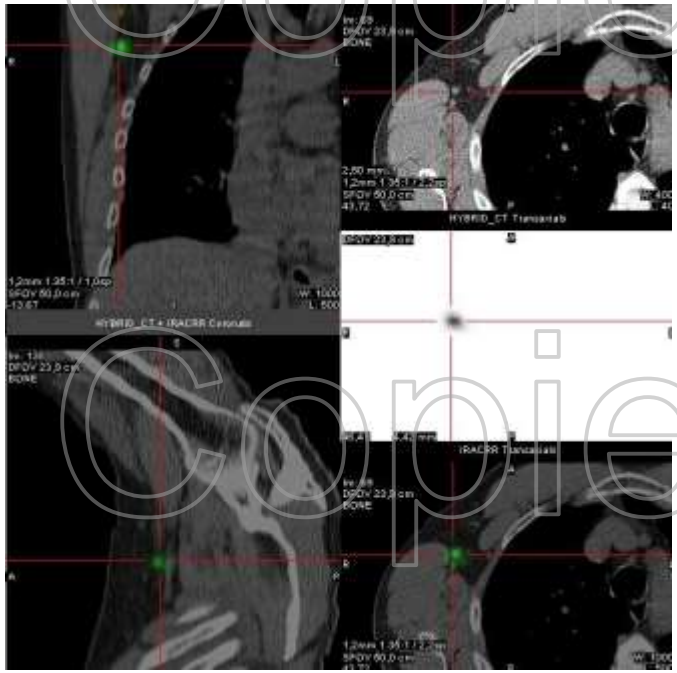


Figure 2. Numbers of found lymph nodes on SPECT/CT and planar imaging in GROUP B

TEMP-TDM
Modifie le geste chirurgical

- 35% chirurgie modifiée
  - 11 incisions plus larges
  - 8 incisions adaptées
  - 5 incisions supplémentaires



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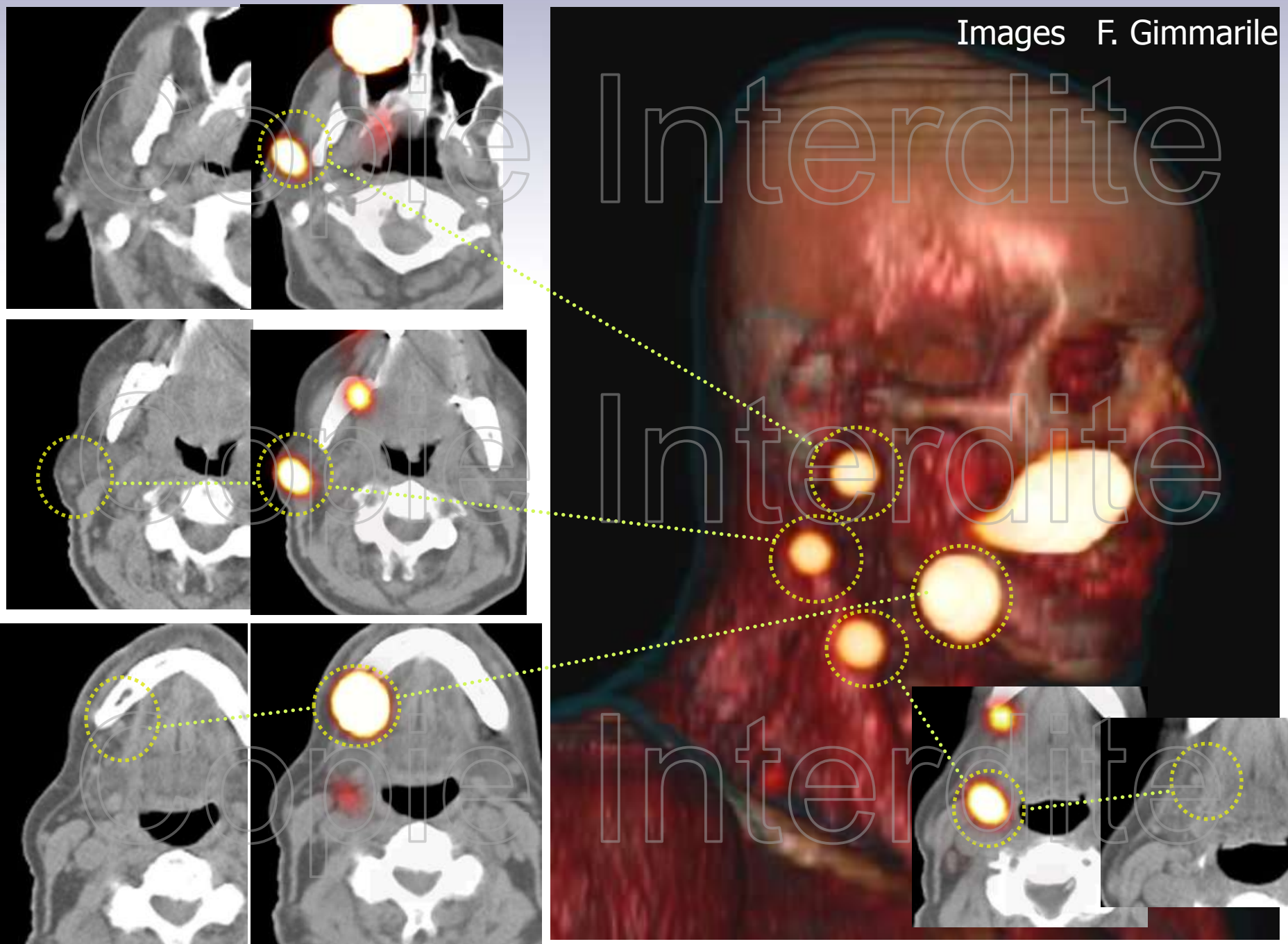
Location	No.	Benefit from SPECT/CT	No.
Head and neck	14	Incision at another site	
		Submandibular instead of on the cheek	2
		Retroauricular instead of at the preauricular region	3
		Longer incision	
		Deep in the neck instead of superficial	1
		Deep from parotid gland instead of in the gland	2
		Smaller incision	
		Superficial in the neck instead of deep	2
		Superficial from parotid gland instead of in the gland	4
Trunk	5	Extra incision	
		additionally visualized sentinel nodes in the flank	2
		additionally visualized sentinel nodes in the scapular region	2
		additionally visualized sentinel nodes in the supraclavicular fossa	1
Arm	3	Incision at another site	
		Node was in triceps muscle instead of biceps muscle or in between Both muscles instead of in epitrochlear fossa	3
Leg	8	Longer incision	
		Nodes in iliac-obturator zone instead of superficial groin	8


Images F. Gimmarile
Copie Interdite

TEMP-TDM
Coût - efficace

Eur J Nucl Med Mol Imaging (2014) 41:1723–1731
DOI 10.1007/s00259-014-2771-1

ORIGINAL ARTICLE

Cost-effectiveness of preoperative SPECT/CT combined with lymphoscintigraphy vs. lymphoscintigraphy for sentinel lymph node excision in patients with cutaneous malignant melanoma

[10]

Ingo Stoffels · Markus Müller · Marie Henrike Geisel · Julia Leyh · Thorsten Pöppel · Dirk Schadendorf · Joachim Klode

- Avant/après
- Allemagne
- 403 patients
  - 254 → planaires
    - 149 → TEMP-TDM
- Economie 30,5% (-710€/pt)
  - Réduction du temps opératoire
  - Réduction des durées d'hospitalisation

TEMP-TDM
Améliore la survie sans récidive ?

- Même série que [10]

Association Between Sentinel Lymph Node Excision With or Without Preoperative SPECT/CT and Metastatic Node Detection and Disease-Free Survival in Melanoma [11]

Ingo Stoffels, MD
Christian Boy, MD
Thorsten Pöppel, MD
Jasna Kuhn, MD
Kerstin Klötgen, MD
Joachim Dissemond, MD
Dirk Schadendorf, MD
Joachim Klode, MD

Context Malignant melanoma has become an increasing interdisciplinary public health challenge worldwide. Sentinel lymph node excision (SLNE) is considered the most sensitive and specific staging test for the detection of micrometastatic melanoma in regional lymph nodes.

Objective To compare metastatic node detection and disease-free survival using single-photon emission computed tomography/computed tomography (SPECT/CT)-aided SLNE vs standard SLNE in patients with melanoma.

Design, Setting, and Patients A prospective, computerized melanoma patient database at the University Hospital Essen, Skin Cancer Center, Essen, Germany, was used to identify a cohort of 464 patients eligible for SLNE between March

Table 1. Patient Characteristics of the SPECT/CT Cohort vs Standard Cohort of Lymphoscintigraphy

Characteristics	Total (N = 403)	Standard Cohort (n = 254)	SPECT/CT Cohort (n = 149)	*P* Value
Age, y				
Mean (SD)	58.62 (15.95)	58.11 (15.52)	59.48 (16.70)	.25
Median	62.00	62.00	62.00	
Sex, No. (%)				
Male	244 (60.5)	151 (59.4)	93 (62.4)	.60
Female	159 (39.5)	103 (40.6)	56 (37.6)	.34
Tumor depth, mm				
Mean (SD)	2.69 (2.18)	2.71 (2.08)	2.66 (2.38)	.16
Median	1.90	1.93	1.80	
Primary localization, No. (%)				
Head or neck	38 (9.4)	6 (2.4)	32 (21.5)	<.001
Torso	175 (43.4)	110 (43.3)	65 (43.6)	>.99
Extremity	169 (41.9)	123 (48.4)	46 (30.9)	<.001
Hand or foot	21 (5.2)	15 (5.9)	6 (4.0)	.49
Ulceration of primary tumor, No. (%)	114 (28.3)	83 (32.7)	30 (20.0)	.005
Localization of SLNs, No. (%)				
Head or neck	41 (10.2)	6 (2.0)	35 (23.5)	<.001
Axilla	191 (47.4)	123 (48.4)	68 (45.6)	.61
Groin	166 (41.2)	122 (48.0)	44 (29.5)	<.001
Pectoral	2 (0.5)	1 (0.4)	1 (0.7)	>.99
Popliteal	3 (0.7)	2 (0.8)	1 (0.7)	>.99
SLNs				
SLNs per patient	2.07 (833/403)	1.87 (475/254)	2.40 (358/149)	<.001
Median (range)	2.00 (0-9)	2.00 (0-9)	2.00 (0-9)	
Positive SLNs				
Patients, No. (%)	99 (24.57)	48 (18.9)	41 (27.5)	<.001
SLNs per patient	0.26 (105/403)	0.21 (54/254)	0.34 (51/149)	.04
Median (range)	0.00 (0-3)	0.00 (0-2)	0.00 (0-3)	
Obesity (BMI >30)				
Patients, No. (%)	31 (7.7)	24 (9.4)	7 (4.7)	.05
SLNs per patient	2.05 (64/31)	1.82 (44/24)	2.86 (20/7)	.07
Positive SLNs per all SLNs	0.14 (9/64)	0.09 (4/44)	0.25 (5/20)	<.001
Positive SLNs per patient	0.29 (9/31)	0.16 (4/24)	0.71 (5/7)	<.001

Abbreviations: BMI, body mass index, calculated as weight in kilograms divided by height in meters squared; SLNs, sentinel lymph nodes; SPECT/CT, single-photon emission computed tomography/computed tomography.

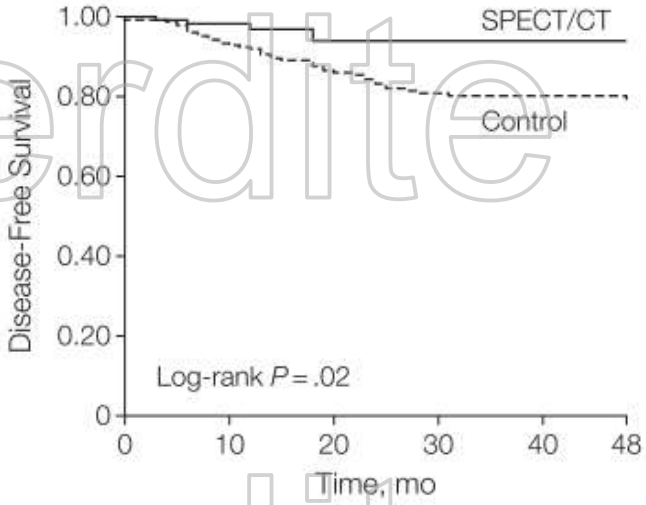
TEMP-TDM
Améliore la survie sans récidive ?

Table 3. Factors Associated With Disease-Free Survival for Patients With Melanoma Who Underwent SLNE Aided by Preoperative SPECT/CT

Variable	No. (%) of Patients	Univariate Analysis HR (95% CI)	Univariate Analysis *P* Value	Multivariate Analysis HR (95% CI)	Multivariate Analysis *P* Value
SPECT/CT					
Yes	149 (36.9)	1 [Reference]		1 [Reference]	
No	254 (63.1)	3.21 (1.14-9.06)	.03	4.11 (1.25-13.51)	.02
Histology					
SSM	165 (40.9)	1 [Reference]		1 [Reference]	
NM	141 (35.0)	2.88 (1.43-5.81)	.003	1.41 (0.03-3.12)	.40
Other	97 (24.1)	1.48 (0.57-3.81)	.42	1.43 (0.51-4.04)	.49
Sex					
Female	159 (39.5)	1 [Reference]		1 [Reference]	
Male	244 (60.5)	0.80 (0.44-1.43)	.45	0.44 (0.22-0.92)	.03
Primary localization					
Head or neck	38 (9.4)	1 [Reference]		1 [Reference]	
Hand or foot	21 (5.2)	0.51 (0.05-4.95)	.56	0.15 (0.13-1.70)	.13
Torso	175 (43.3)	1.34 (0.40-4.49)	.63	0.91 (0.23-3.51)	.89
Extremity	169 (41.9)	1.24 (0.37-4.21)	.73	0.34 (0.08-1.41)	.14
Age, per y		1.01 (0.99-1.03)	.45		>.99
Breslow thickness, per mm	403 (100)	1.26 (1.15-1.38)	<.001	1.16 (1.02-1.32)	.02
Ulceration					
Absent	289 (71.7)	1 [Reference]		1 [Reference]	
Present	114 (28.3)	3.69 (2.04-6.67)	<.001	2.07 (1.07-3.99)	.03
Sentinel node status					
Negative	314 (77.9)	1 [Reference]		1 [Reference]	
Positive	89 (22.1)	5.02 (2.79-9.03)	<.001	4.14 (2.14-7.98)	<.001

Abbreviations: HR, hazard ratio; NM, nodular melanoma; SLNE, sentinel lymph node excision; SPECT/CT, single-photon emission computed tomography/computed tomography; SSM, superficial spreading melanoma.

Figure 1. Kaplan-Meier Curve With the SPECT/CT-Specific Disease-Free Survival Over 48 Months



TEMP-TDM
Améliore la survie sans récidive ?

- Etude cas-témoin avant/après
  - Biais temporel
  - +++ pour critères de jugements temporels (survie)
  - Mais
    - plus de GS+
    - Analyse multivariée

TEMP-TDM

- Optionnelle (EANM 2009[4])
- Bénéfice pour le patient
- Infos pertinentes pour le chirurgien
- Coût modique (France)
  - ZZQL013 (313,08 €)
  - FCQL001 + ZZQL007 (410,51 €)

Ganglion sentinelle et mélanome

- Introduction
- Indications
- Technique
- **Résultats**
- Perspectives

Résultats

VOLUME 29 · NUMBER 11 · APRIL 10 2011
JOURNAL OF CLINICAL ONCOLOGY
ORIGINAL REPORT

[12]

Lymphatic Mapping and Sentinel Lymph Node Biopsy in Patients With Melanoma: A Meta-Analysis

Matias E. Valsecchi, Damian Silbermins, Nicole de Rosa, Sandra L. Wong, and Gary H. Lyman

- Méta-analyse
  - 78 articles, 25 240 patients
  - Taux détection 98,1 %
  - Taux FN 12,5 % (vs récidive ganglionnaire)
  - Taux Faux Négatifs 0-5% (vs curage)

➔Le GS permet une stadification ganglionnaire fiable

Résultats

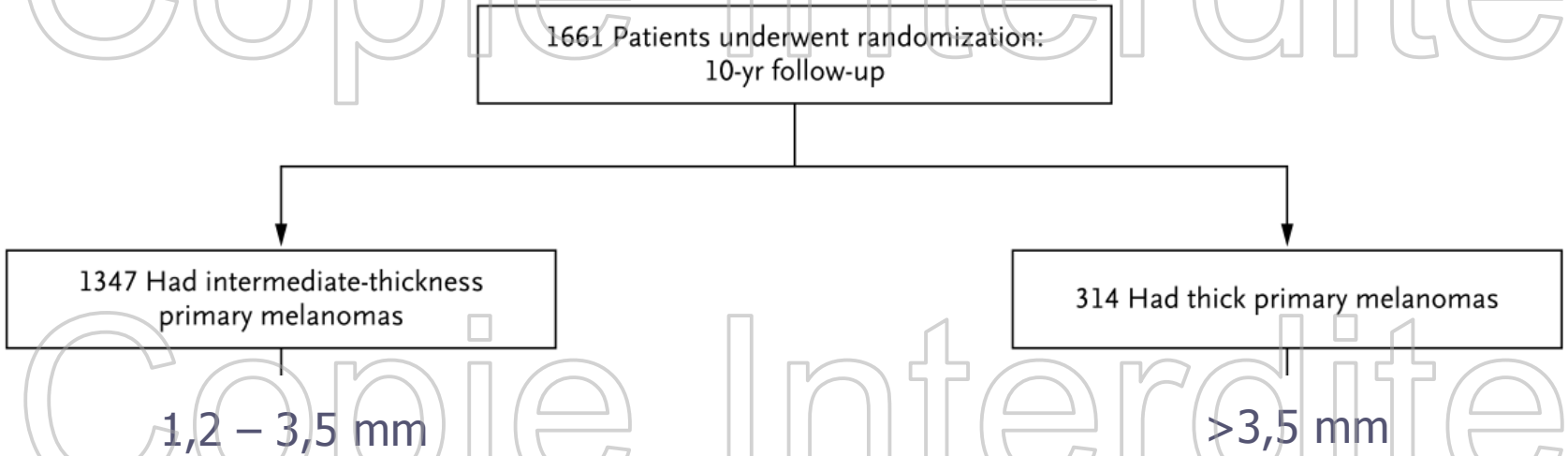
- MSLT-I

The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812 FEBRUARY 13, 2014 VOL. 370 NO. 7

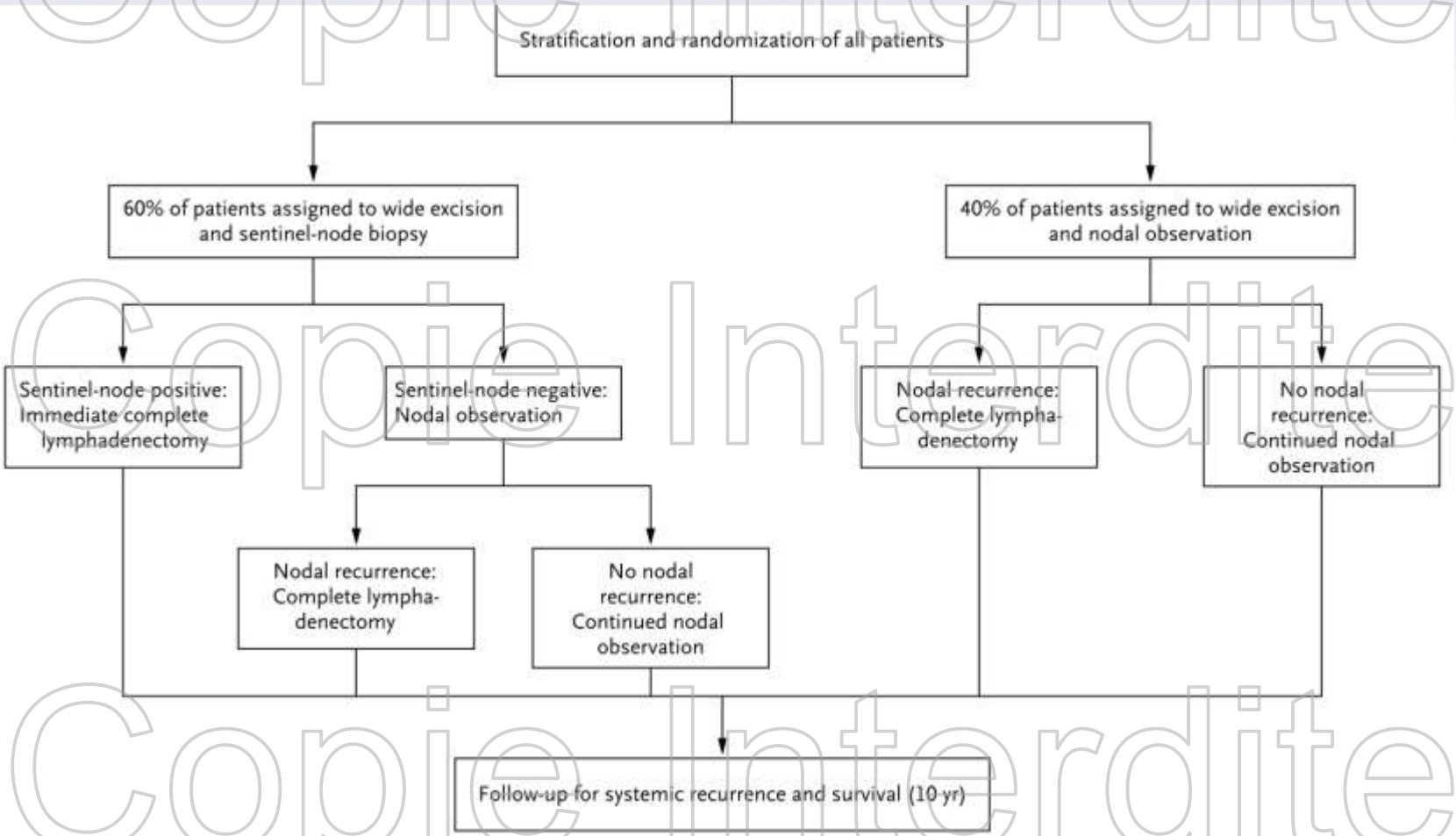
Final Trial Report of Sentinel-Node Biopsy versus Nodal Observation in Melanoma [13]

D.L. Morton, J.F. Thompson, A.J. Cochran, N. Mozzillo, O.E. Nieweg, D.F. Roses, H.J. Hoekstra, C.P. Karakousis, C.A. Puleo, B.J. Coventry, M. Kashani-Sabet, B.M. Smithers, E. Paul, W.G. Kraybill, J.G. McKinnon, H.-J. Wang, R. Elashoff, and M.B. Faries, for the MSLT Group*



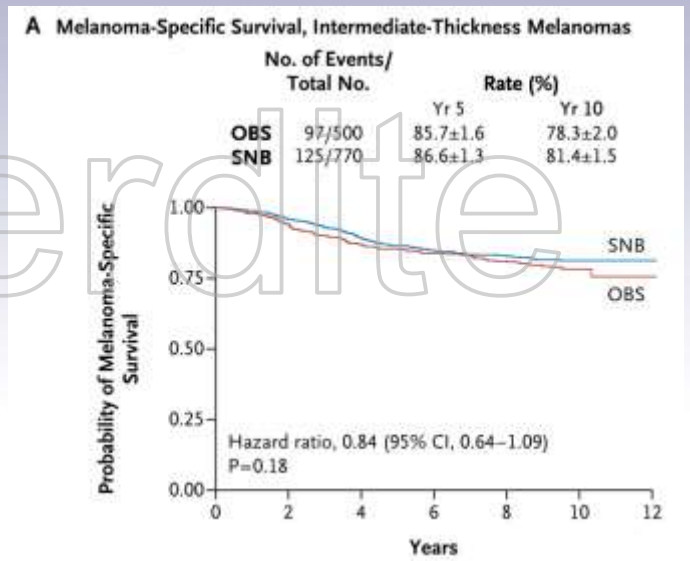
(Analyse post hoc 1-4 mm,
résultats disponibles en ligne similaires)

MSLT-1

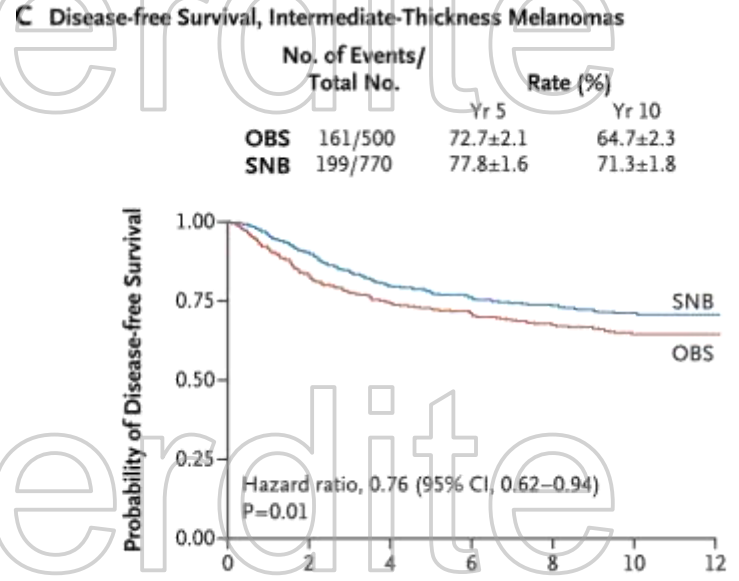


MSLT-1

- Objectif principal
  - Survie spécifique à 10 ans
  - **Négatif** (81,4±1,5% vs 78,3±2% p=0,18)



- Objectif secondaire
  - Survie sans récidive
  - 71,3±1,8% vs 64,7± 2,3% HR 95% p=0,01

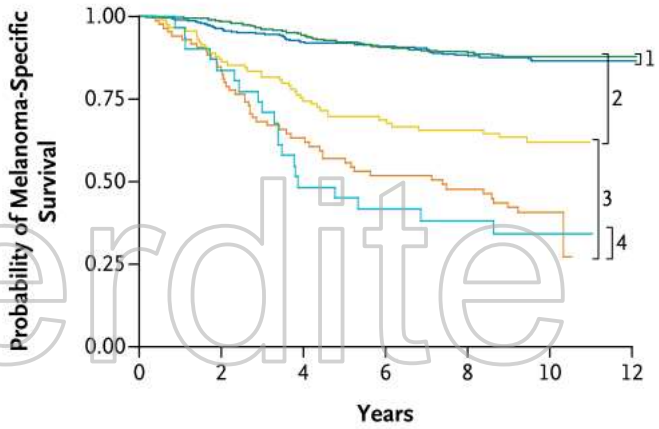


MSLT-1

- Analyse en sous groupe
  - Survie spécifique à 10 ans

C Melanoma-Specific Survival, Intermediate-Thickness Melanomas

	No. of Events/ Total No.	Rate (%) Yr 5	Rate (%) Yr 10
OBS, no nodal recurrence	48/413	92.0±1.4	86.6±1.8
OBS, nodal recurrence	49/87	57.5±5.4	41.5±5.6
SNB, true neg.	63/612	92.3±1.1	88.0±1.4
SNB, pos.	41/122	69.8±4.4	62.1±4.8
SNB, false neg.	20/31	45.2±8.9	34.4±8.7

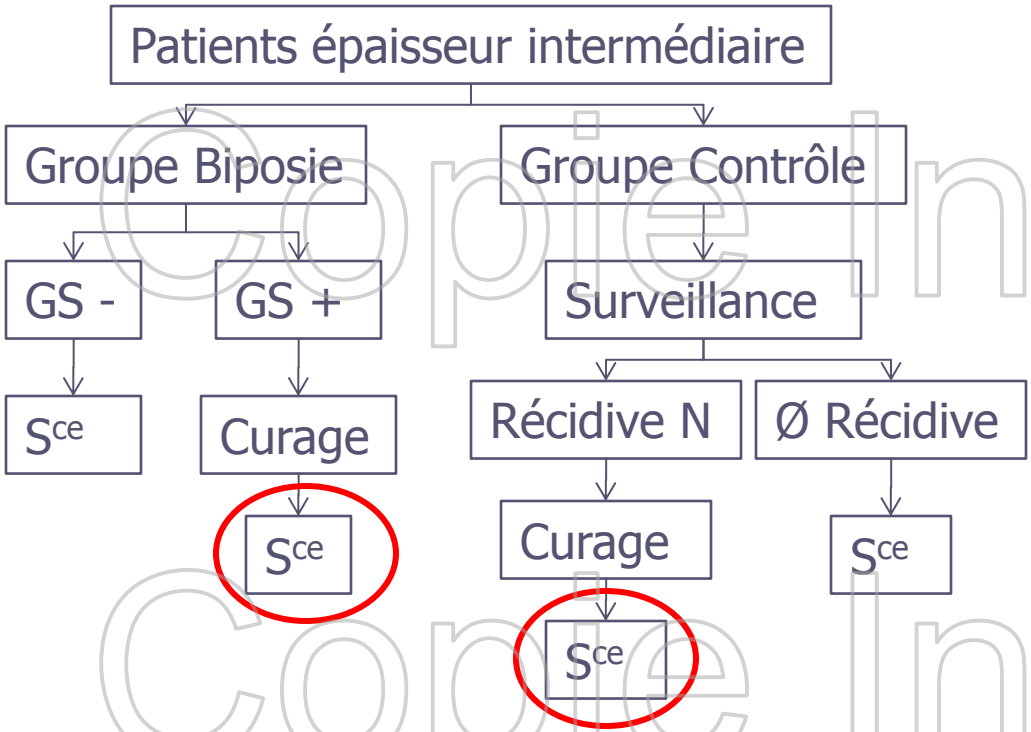


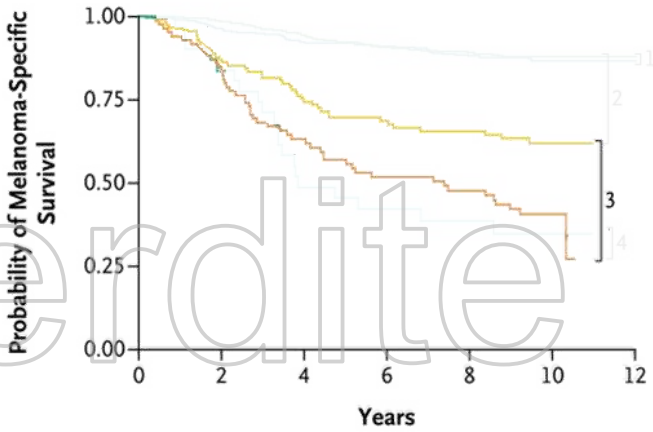
No. at Risk							
OBS, no nodal recurrence	413	375	339	311	282	175	4
OBS, nodal recurrence	87	73	51	40	36	16	0
SNB, true neg.	612	570	511	448	395	243	5
SNB, pos.	122	100	81	68	60	31	0
SNB, false neg.	31	26	15	12	10	6	0

1. SNB, neg. vs. OBS, no nodal recurrence: HR, 0.89 (95% CI, 0.61–1.29); P=0.54
2. SNB, pos. vs. SNB, neg.: HR, 3.93 (95% CI, 2.65–5.83); P<0.001
3. SNB, pos. vs. OBS, nodal recurrence: HR, 0.56 (95% CI, 0.37–0.84); P=0.006
4. SNB, false neg. vs. OBS, nodal recurrence: HR, 1.15 (95% CI, 0.68–1.94); P=0.60

MSLT-1

- Analyse en sous groupe





3. SNB, pos. vs. OBS, nodal recurrence: HR, 0.56 (95% CI, 0.37–0.84); P=0.006

SNB, pos. vs. OBS, nodal recurrence: HR, 0.56 (95% CI, 0.37–0.84); P=0.006

62,1 vs 41,5 %

Résultats

- GS performant pour connaître le statut N
- Elément pronostic majeur
- Intérêt sur la survie plus incertain

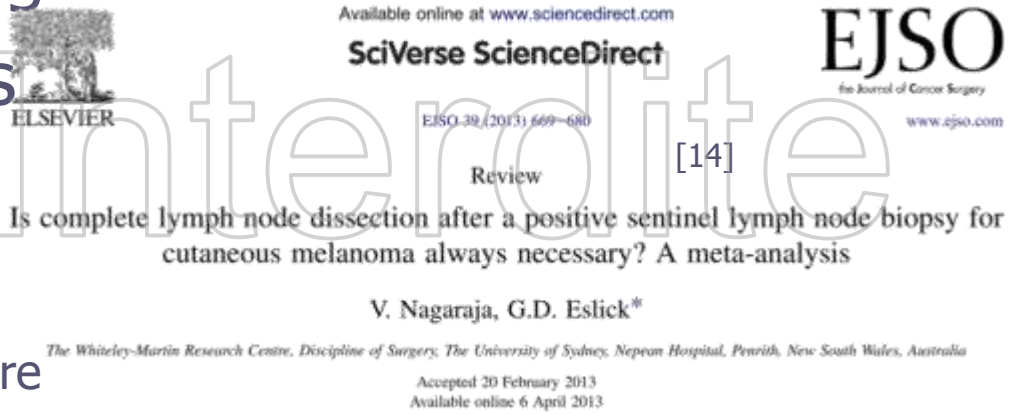
Ganglion sentinelle et mélanome

- Introduction
- Indications
- Technique
- Résultats
- **Perspectives**

Perspectives

- Intérêt du curage complémentaire ?
  - 80 à 85 % de curage « blanc »
  - Nombreux facteurs prédictifs

    Taille >2mm,
    nombre,
    envahissement capsulaire
    .....

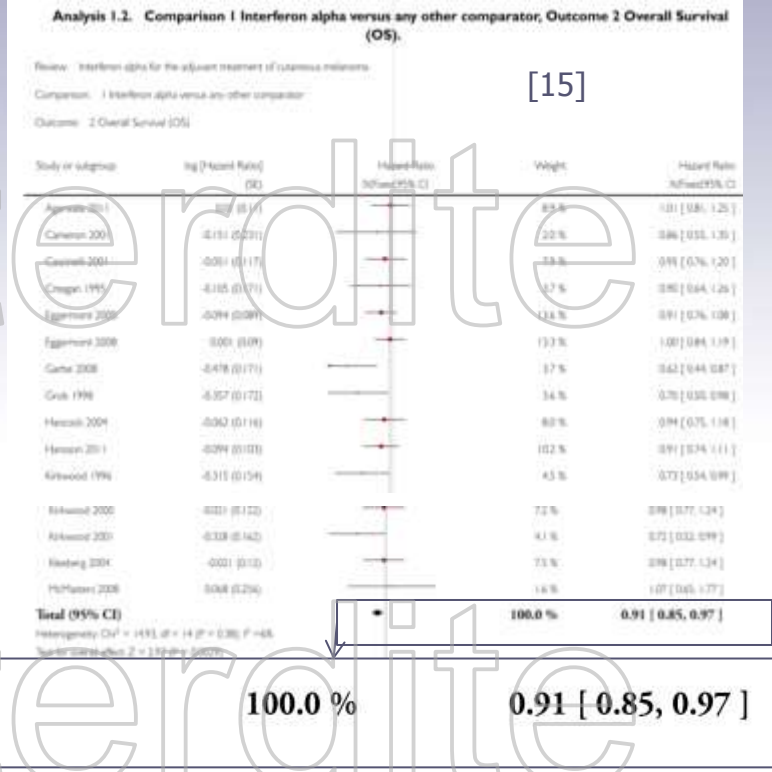


- Essai randomisé MSLT II (clos, résultats 2022)
- Essai observationnel EORTC 1208

Perspectives

- Traitements adjuvants ?
  - Interféron alpha
    - Méta-analyse Mocellin
    - 54 études, 8388 patients
    - Patients à risque (II-III)

      (>T2b : >1mm +Ulcération)
  - Nouvelles stratégies ?
    - Ac Anti CLTA4 (Ipilimumab)
    - Ac anti PD1 (nivolumab et pembrolizumab)
    - Inhibiteur de B-RAF



Perspectives ?

[16]

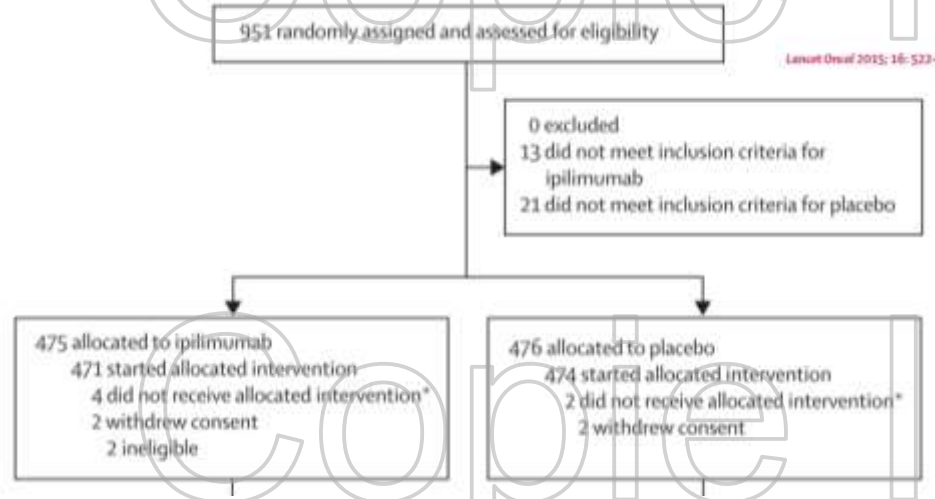
Adjuvant ipilimumab versus placebo after complete resection of high-risk stage III melanoma (EORTC 18071): a randomised, double-blind, phase 3 trial

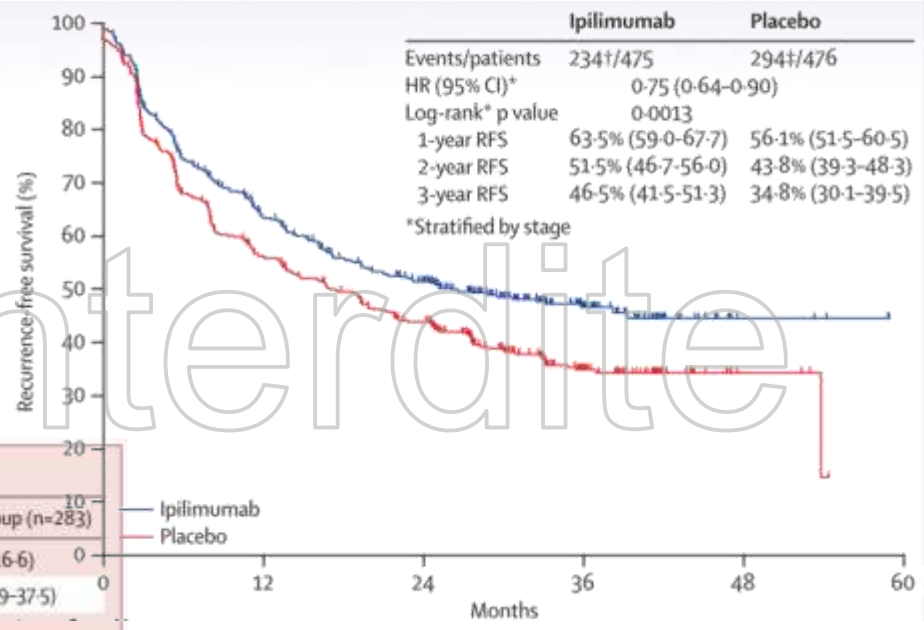
Alexander M M Eggermont, Vanna Chiarion-Sileni, Jean-Jacques Grob, Reinhard Dummer, Jedd D Wolchok, Henrik Schmidt, Omid Hamid, Caroline Robert, Paolo A Ascierto, John M Richards, Céleste Lebbé, Virginia Ferraresi, Michael Smylie, Jeffrey S Weber, Michele Maio, Cyril Konto, Axel Hoos, Veerle de Pril, Ravichandra Kanra Gurunath, Gaetan de Schaetzen, Stefan Suciu, Alessandro Testori

Summary

Lancet Oncol 2015; 16: 522–30

Background Ipilimumab is an approved treatment for patients with advanced melanoma. We aimed to assess





	Microscopic stage III* (positive sentinel nodes)		Macroscopic stage III* (palpable nodes)	
	Ipilimumab group (n=210)	Placebo group (n=193)	Ipilimumab group (n=265)	Placebo group (n=283)
Median RFS (months)	NR (38·4–NR)	26·9 (19·3–32·9)	15·4 (11·3–22·9)	11·3 (8·1–16·6)
3-year RFS	57·6% (50·0–64·4)	39·2% (31·4–47·0)	37·8% (31·3–44·2)	31·7% (25·9–37·5)
HR	0·65 (0·45–0·96)†	–	0·81 (0·61–1·08)†	–
p value	0·004†	–	0·06†	–

In the ipilimumab group, 465 (99%) of 471 patients had an adverse event of any grade, with grade 3 or 4 adverse events in 254 (54%) patients; 432 (91%) of 474 patients in

Of 471 patients who started ipilimumab, 245 (52%) discontinued treatment because of an adverse event, of which 230 (49%) were drug-related; in 182 (39%) patients

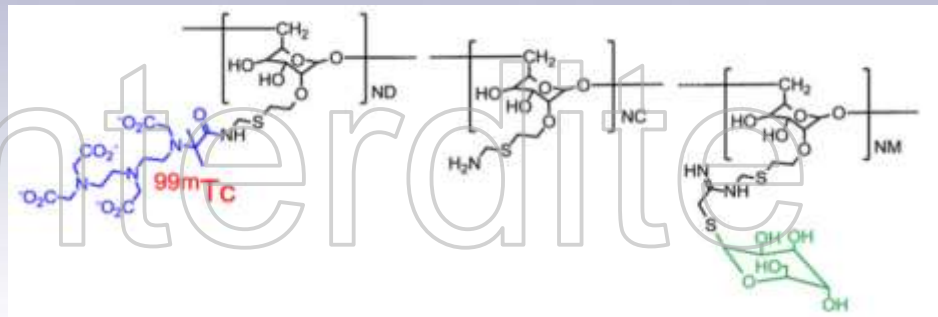
Five (1%) participants died because of drug-related adverse events in the ipilimumab group; three patients died because of colitis (two with gastrointestinal perforation), one patient because of myocarditis, and one

Perspectives

- Nouveaux traceurs ?

Perspectives

- ^{99m}Tc-Tilmanocept
  - mélanome : comparé au bleu patenté
  - Meilleur spécificité dans le cancer du sein
    - Moins de GS identifiés donc enlevés, mais autant de GS envahis



Ann Surg Oncol (2013) 20:680–688
DOI 10.1245/s10434-012-2612-z

Annals of SURGICAL ONCOLOGY

ORIGINAL ARTICLE – MELANOMAS

[17]

Combined Analysis of Phase III Trials Evaluating [^{99m}Tc]Tilmanocept and Vital Blue Dye for Identification of Sentinel Lymph Nodes in Clinically Node-Negative Cutaneous Melanoma

Vernon K. Sondak, MD[1], Dennis W. King, PhD[2], Jonathan S. Zager, MD[1], Schlomo Schneebaum, MD[3], Julian Kim, MD[4], Stanley P. L. Leong, MD[5], Mark B. Faries, MD[6], Bruce J. Averbook, MD[7], Steve R. Martinez, MD[8], Christopher A. Puleo, PA-C[1], Jane L. Messina, MD[1], Lori Christman, PhD[2], and Anne M. Wallace, MD[9]

Clin Exp Metastasis (2012) 29:681–686
DOI 10.1007/s10585-012-9497-x

RESEARCH PAPER

[18]

The efficacy of Tilmanocept in sentinel lymph mode mapping and identification in breast cancer patients: a comparative review and meta-analysis of the ^{99m}Tc-labeled nanocolloid human serum albumin standard of care

Christopher A. Tokin · Frederick O. Cope · Wendy L. Metz · Michael S. Blue · Beth M. Potter · Bonnie C. Abbruzzese · Richard D. Hartman · Marcus T. Joy · Dennis W. King · Lori A. Christman · David R. Vera · Anne M. Wallace

Perspectives

- Oxyde de fer super-paramagnétique
  - Non évalué dans le mélanome
    - Un seul cas clinique publié : drainage inhabituel
      - Etude SentiMAG

Precise localisation of a sentinel lymph node in a rare drainage region with S of ^{99m}Tc-nanocolloid a

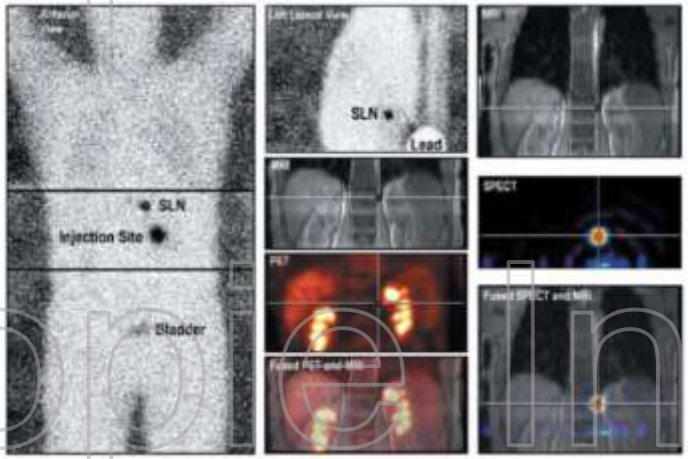
Sofiane Maza[1], Matthias Taupitz[1], Thors

[1] Clinic for Nuclear Medicine, Charité University

Published online: 4 September 2004
© Springer-Verlag 2004

[19]

Eur J Nucl Med Mol Imaging (2005) 3
DOI 10.1007/s00259-004-1660-4



- Non inférieur dans le cancer du sein
  - Etude SentiMAG

Ann Surg Oncol (2014) 21:1237–1245
DOI 10.1245/s10434-013-3379-6

Annals of SURGICAL ONCOLOGY

ORIGINAL ARTICLE – BREAST ONCOLOGY

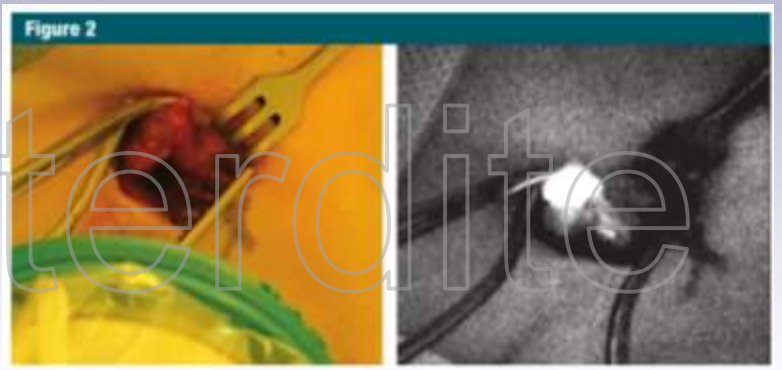
[20]

Sentinel Node Biopsy Using a Magnetic Tracer Versus Standard Technique: The SentiMAG Multicentre Trial

Michael Douek, MD[1,2], Joost Klaase, MD[3], Ian Monypenny, MD[4], Ashutosh Kothari, MS[3], Katalin Zechmeister, MD[5], Douglas Brown, MD[6], Lynda Wyld, PhD[7], Philip Drew, MD[8], Hans Garmo, PhD[1], Olorunsola Agbaje, PhD[1], Quentin Pankhurst, PhD[9], Banke Anninga, MSc[1,10], Maarten Grootendorst, MSc[1,10], Bennie ten Haken, PhD[10], Margaret A. Hall-Craggs, MD[11], Arnie Purushotham, MD[1,2], Sarah Pinder, MD[1,2] and On behalf of the SentiMAG Trialists Group

Perspectives

- Imagerie fluorescence (Vert d'Indocyanine)



[21]

Radiology

Multimodal Surgical Guidance during Sentinel Node Biopsy for Melanoma: Combined Gamma Tracing and Fluorescence Imaging of the Sentinel Node through Use of the Hybrid Tracer Indocyanine Green–^{99m}Tc-Nanocolloid[1]

Nynke S. van den Berg, MSc

Purpose: To evaluate the hybrid approach in a large population of

Intraoperative SN Detection

Clinical Data	All, 104 Patients
No. of excised SNs	301
No. of SNs not excised	4
All SNs	305
Intraoperative detection of SNs‖	
With gamma tracing	286/305 (93.8)
With FI guidance	295/305 (96.7)
With blue-dye visualization	116/188 (61.7)

Preoperative SN Mapping Results

Clinical Data	Location Overall
No. of patients	104
Total no. of SNs visualized*	246 (2.4, 1–6)
Lymphoscintigraphy†	232/246 (94.3)
SPECT/CT†	245/246 (99.6)
Portable gamma camera†	1/246 (0.4)

Implications for Patient Care

- FI of the hybrid tracer, compared with blue dye, provided improved SN visualization.
- Accurate guidance during SN biopsy has the potential to reduce morbidity associated with the SN biopsy procedure.

Perspectives

Groupe Hospitalier Universitaire
SAINT-LOUIS
LARIBOISIÈRE
FERNAND-WIDAL

https://www.youtube.com/watch?v=Hahkwe_uoqI

Résultats

- GS performant pour connaître le statut N
- Intérêt de la TEMP-TDM
- Intérêt « direct » sur la survie plus incertain
- Intérêt probable pour sélectionner les patients devant bénéficier d'un traitement adjuvant

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