



Università
degli Studi
di Ferrara



SERVIZIO SANITARIO REGIONALE
EMILIA-ROMAGNA
Azienda Ospedaliero - Universitaria di Ferrara

IL PERCORSO DEL PAZIENTE CON NEOPLASIA NEUROENDOCRINA NELLA PROVINCIA DI FERRARA

IL RUOLO DEL CHIRURGO TORACICO

Ferrara 12 Ottobre 2019

Dott.ssa Cristina Bombardini

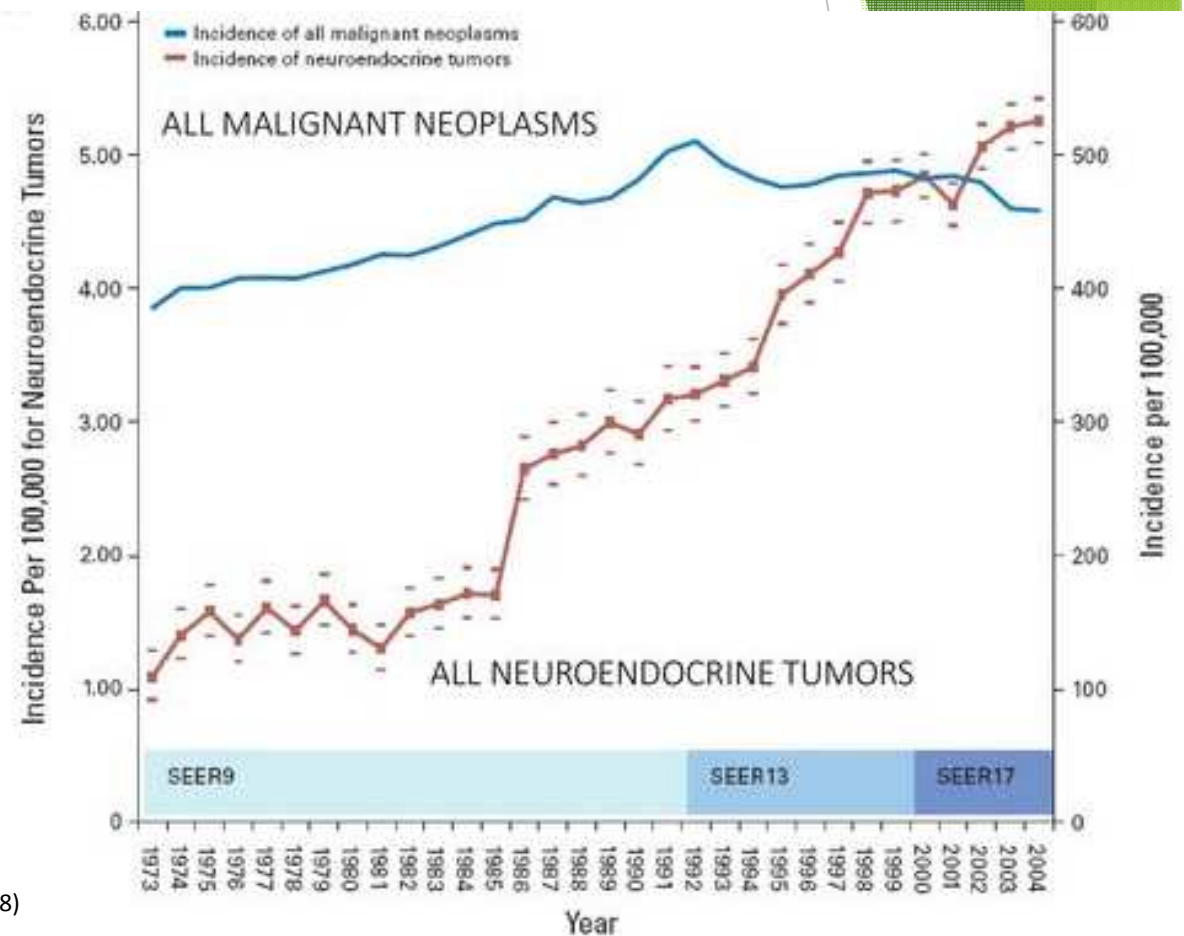
Prof. Giorgio Cavallesco

UO Chirurgia 1 - Chirurgia Toracica, Azienda Ospedaliero-Universitaria di Ferrara

NEOPLASIE NEUROENDOCRINE



- ✓ NEN (Neuro-Endocrine Neoplasm)
- ✓ Incidenza: 2-5/100.000 anno
- ✓ Prevalenza: 35/100.000
- ✓ Derivano dal Sistema endocrino
- ✓ diffuso (DES)



(Yao et al. 2008)

CLASSIFICAZIONE WHO

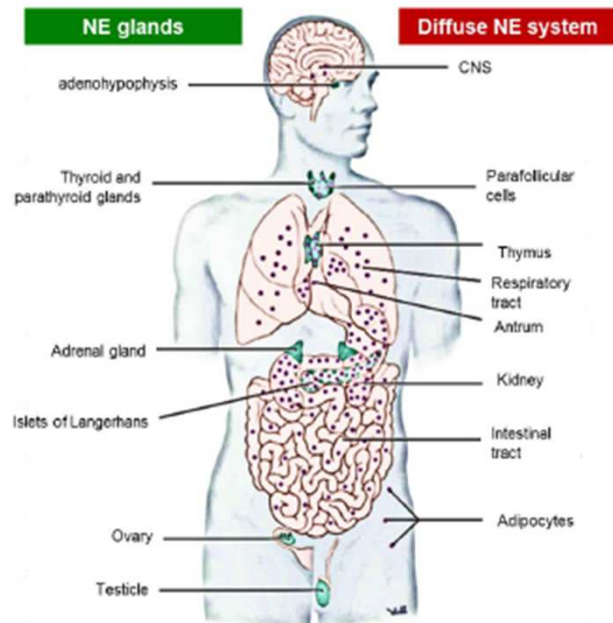


GASTROINTESTINALI

STOMACO, INTESTINO (TENUE,
COLON, RETTO E ANO),
PANCREAS

TORACICI

PLEURA, CUORE,
TIMO, POLMONI



1. CARCINOIDE TIPICO
2. CARCINOIDE ATIPICO
3. SCLC
4. LCNEC

TUMORI NEUROENDOCRINI POLMONARI

25% DEI TUMORI PRIMITIVI DEL POLMONE

CARCINOIDE TIPICO 2%

CARCINOIDE ATIPICO 0.2 %

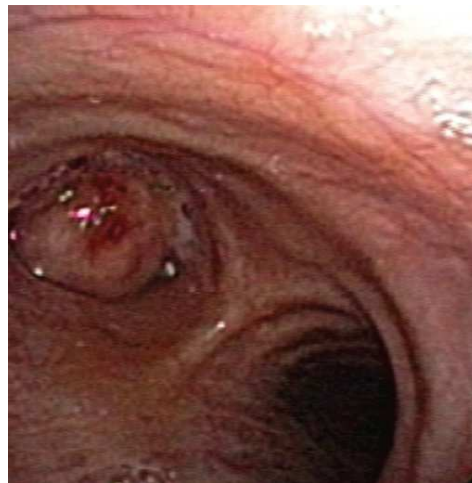
CARCINOMA NEUROENDOCRINO A GRANDI
CELLULE 3 %

CARCINOMA A PICCOLE CELLULE 20%

SINTOMI

37% - 60% originano dall'albero bronchiale

- ✓ forme endobronchiali: tosse, emottisi, dispnea, polmoniti
(RX e TC: atelettasia)
- ✓ forme periferiche: asintomatiche



SINTOMI

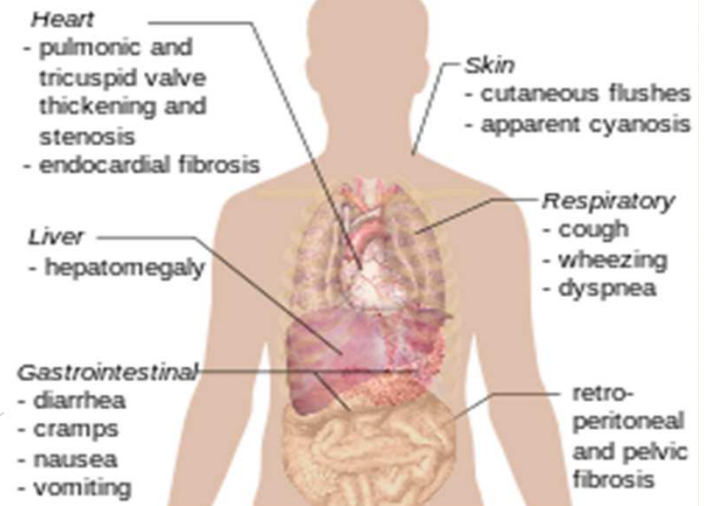
Síndrome da Carcinoide:

- serotoniniana + bradichinina
- solo nel 2-5 % dei pazienti con carcinoide broncopolmonare
- frequente presenza di metastasi epatiche (nel 90% dei casi)

Síndrome di Cushing:

- nel 1-6 % dei pazienti

Carcinoid syndrome



TUMORI NEUROENDOCRINI POLMONARI

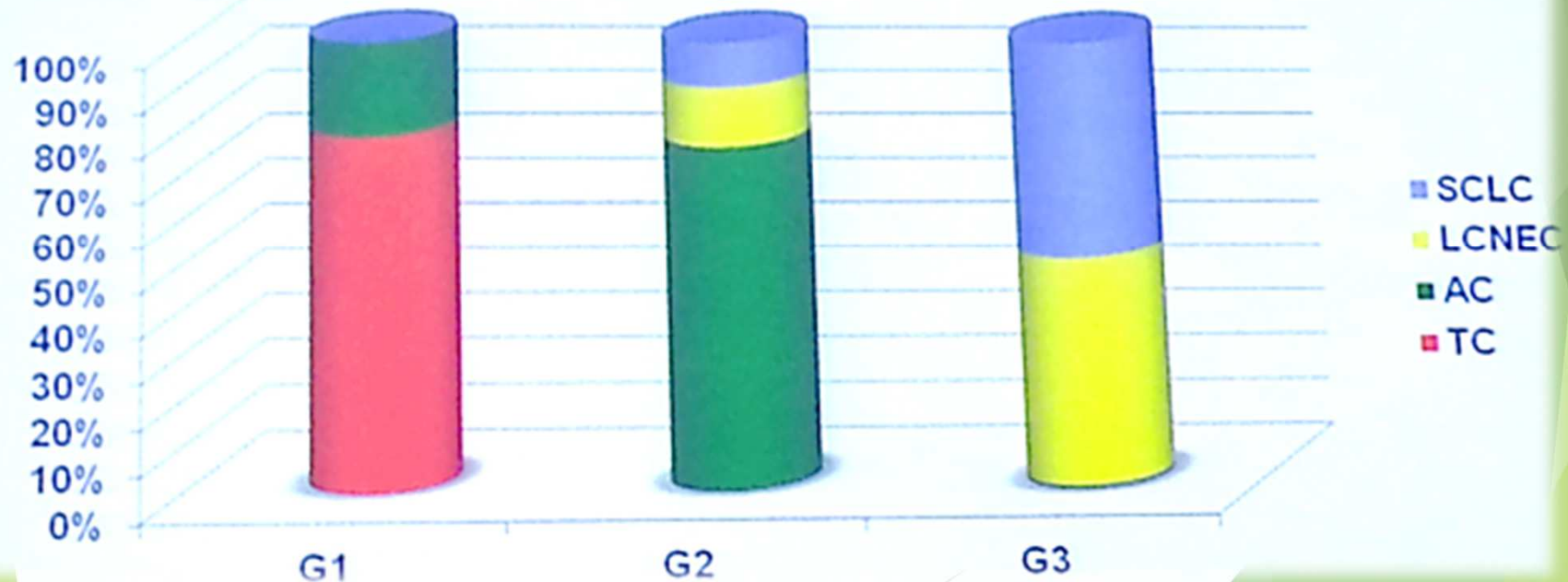
SOPRAVVIVENZA A 5 ANNI

- ✓ CARCINOIDE TIPICO 90 %
- ✓ CARCINOIDE ATIPICO 70 %
- ✓ CARCINOMA NEUROENDOCRINO
A GRANDI CELLULE E
- ✓ CARCINOMA A PICCOLE CELLULE
LIMITED STAGE 10-13 %
ADVANCED STAGE 1-2 %

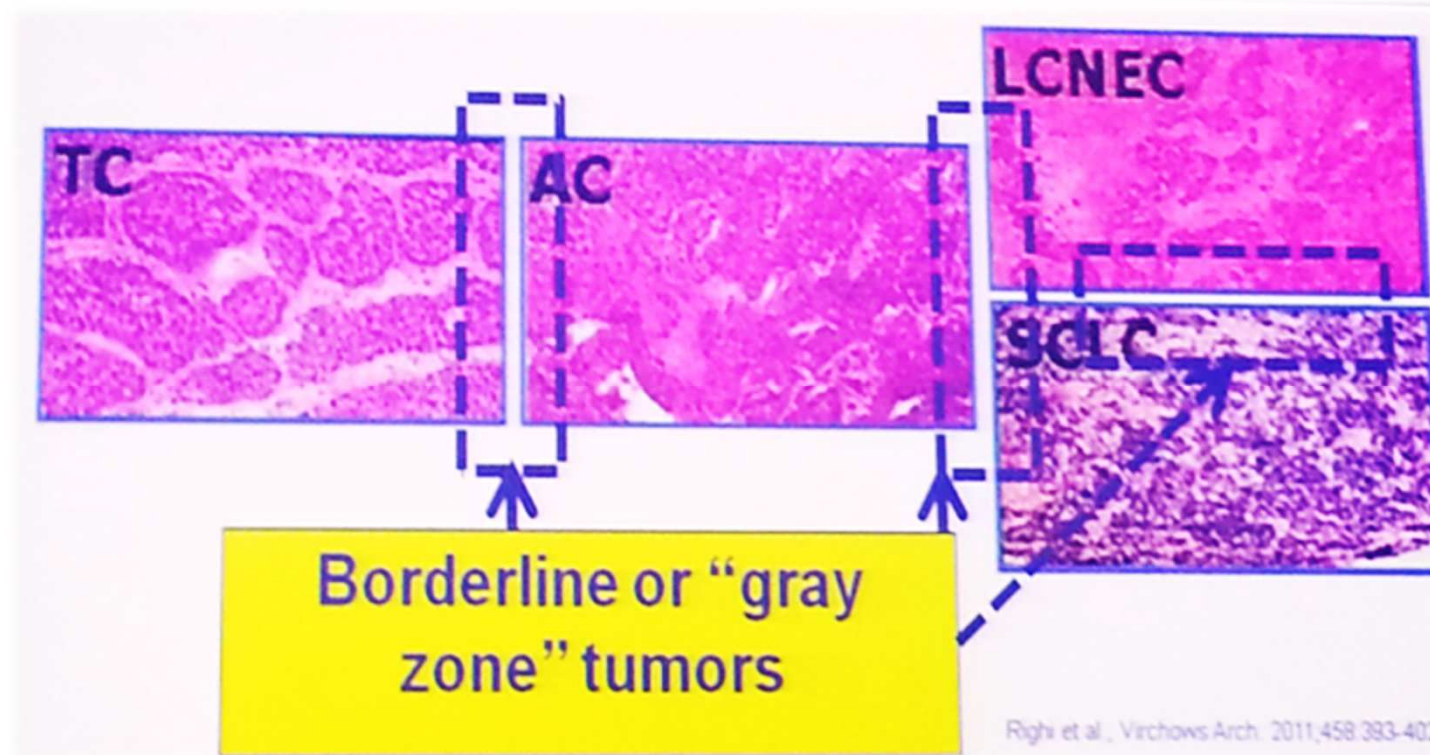
CLASSIFICAZIONE

Table 4 Grading parameters with cutoff definitions based on present cohort findings (see note for application details)

Grade	Variable		
	Mitotic count (10HPF) ^a	Ki67 (%) ^b	Necrosis (%) ^c
G1	2	<4	No
G2	>2-47	4-<25	<10
G3	>47	≥25	>10



CLASSIFICAZIONE



TUMORI NEUROENDOCRINI POLMONARI

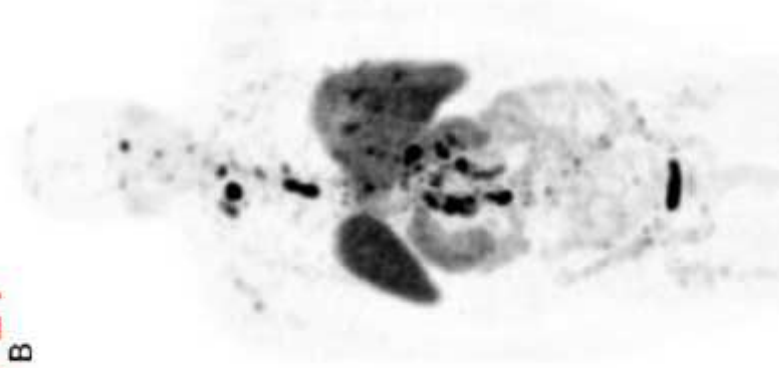
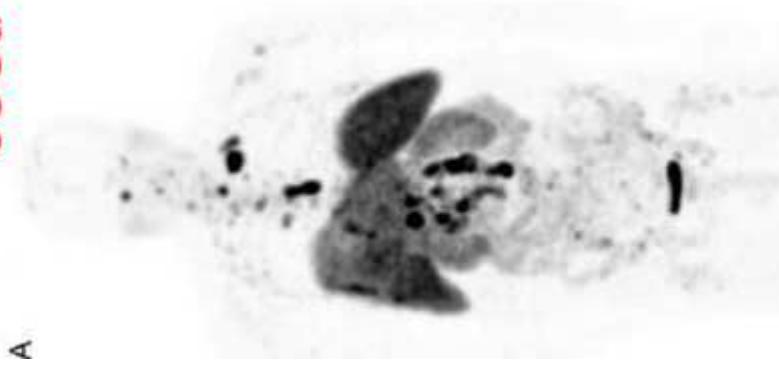
E' SEMPRE NECESSARIA DIAGNOSI ISTOLOGICA
PREOPERATORIA?

PET 68Ga DOTATOC

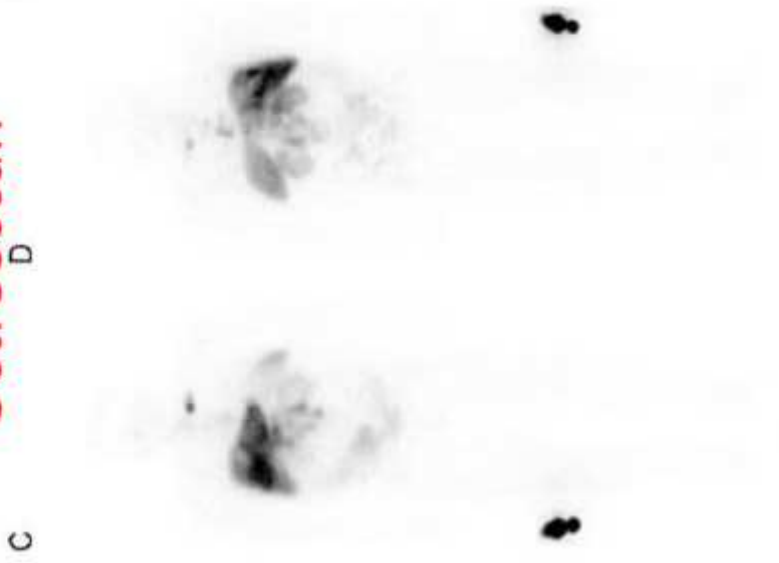
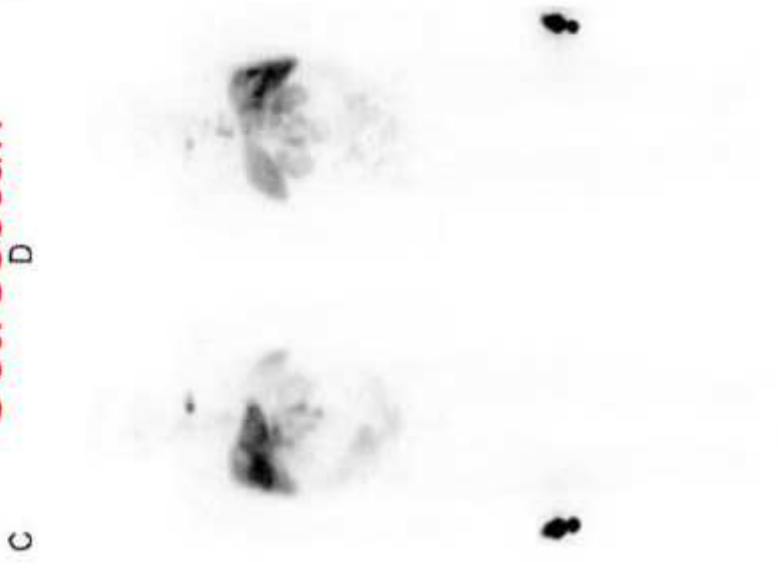
Kyriss T, Maier S, Veit S, Fritz P, Toomes H, Friedel G. Carcinoid lung tumors: long-term results from 111 resections. *GMS Thorac Surg Sci.* 2006;3:Doc03.

Benefit of ^{68}Ga -DOTATATE PET/CT

68Ga-PET
B



Octreoscan
D



C

Anterior ^{68}Ga -DOTATATE

Posterior ^{68}Ga -DOTATATE

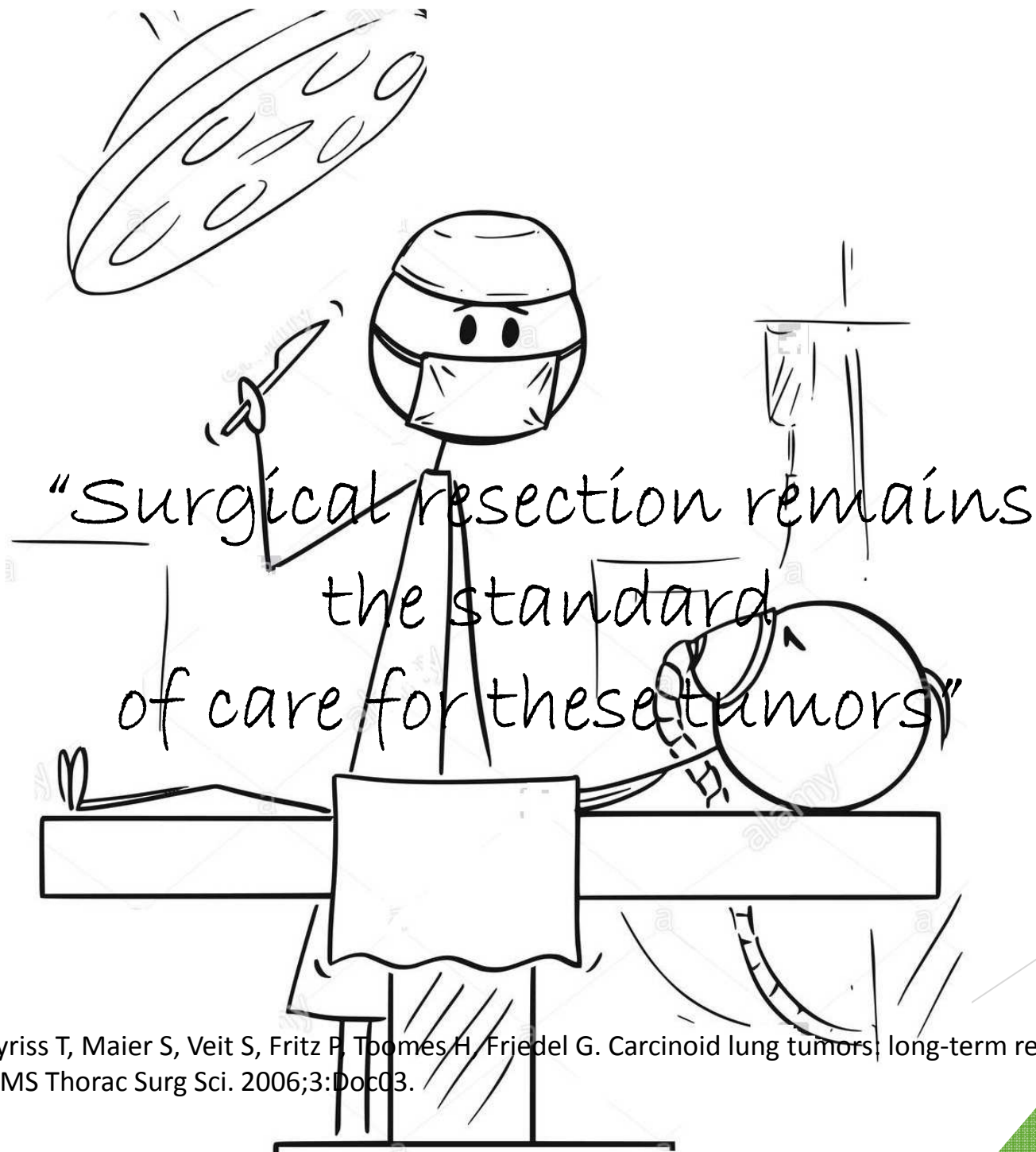
Anterior Octreoscan Posterior Octreoscan

TUMORI NEUROENDOCRINI POLMONARI

TERAPIA

Comprehensive review of the management of localized pulmonary neuroendocrine tumor, mainly atypical carcinoids (AC) and typical carcinoids (TC) by different guidelines. ENETS: European Neuroendocrine Tumor Society, EMSO: European Society of Medical Oncology, NANETS: North American Neuroendocrine Tumor Society, NCCN: National Comprehensive Cancer Network.

Guidelines	NCCN	NANETS	ENETS	ESMO
Surgical Approach	Lobectomy along with mediastinal node dissection or sampling	Bronchial NETS— <u>Sleeve resection</u> , along with lymph node sampling in well-differentiated bronchial NETs Thymic NETS—median sternotomy approach with complete tumor resection and mediastinal lymphadenectomy	<u>Lobectomy/Segmentectomy</u> along with a minimum of 6 lymph nodes sampling, min of three to be mediastinal including subcarinal Central airway tumor—lung parenchymal sparing surgery <u>Bronchial sleeve resection or sleeve lobectomy preferred over pneumonectomy</u> Systemic nodal dissection	Inoperable—Bronchoscopic laser excision of intraluminal typical bronchial NETs <u>Lobectomy/sleeve resection</u> , along with systemic nodal dissection
Adjuvant Regimen	Stage IIIA/B ACs radiation +/- chemotherapy	No recommendations	Consider adjuvant therapy in ACs with positive lymph nodes	No recommendations



Kyriss T, Maier S, Veit S, Fritz P, Thomas H, Friedel G. Carcinoid lung tumors: long-term results from 111 resections. GMS Thorac Surg Sci. 2006;3:Doc03.

TUMORI NEUROENDOCRINI POLMONARI

TERAPIA CHIRURGICA

Principi:

- ✓ Resezione radicale
- ✓ Resezioni polmonari anatomiche (ev con risparmio di tessuto polmonare sano)
- ✓ Linfadenectomia sistemica

Kyriss T, Maier S, Veit S, Fritz P, Toomes H, Friedel G. Carcinoid lung tumors: long-term results from 111 resections. GMS Thorac Surg Sci. 2006;3:Doc03.

TUMORI NEUROENDOCRINI POLMONARI

TERAPIA

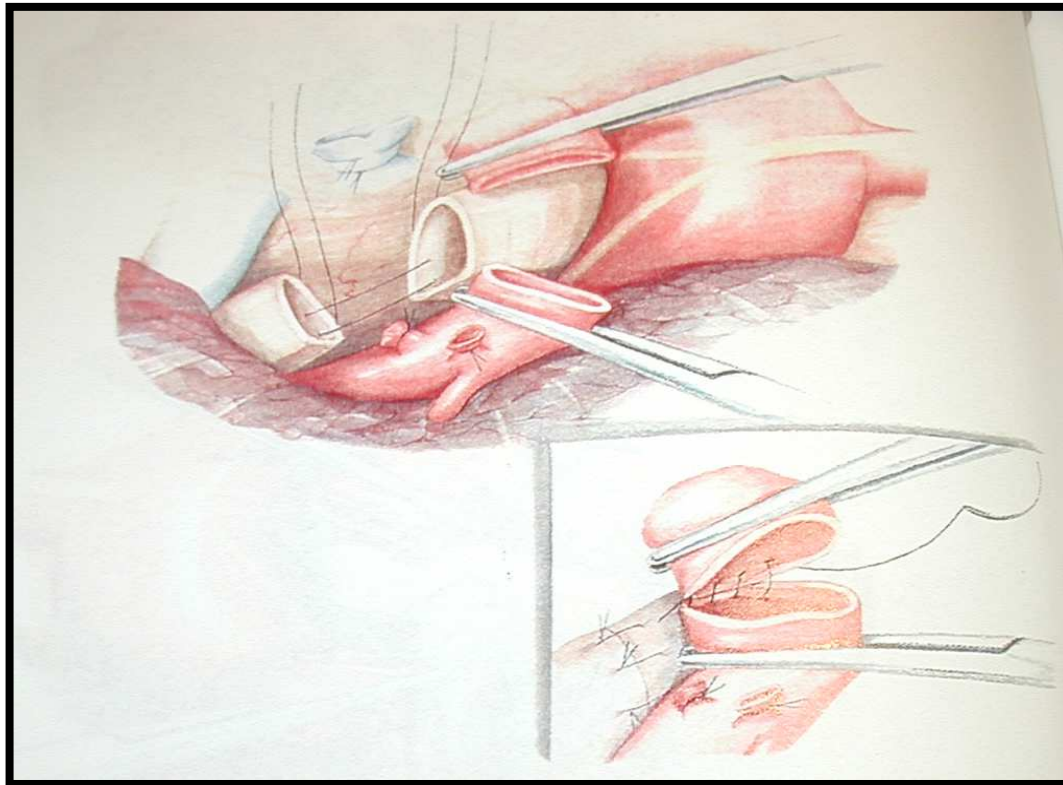
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TUMORI NEUROENDOCRINI POLMONARI

TERAPIA

SLEEVE RESECTION



Kyriss T, Maier S, Veit S, Fritz P, Toomes H, Friedel G. Carcinoid lung tumors: long-term results from 111 resections. GMS Thorac Surg Sci. 2006;3:Doc03.

TUMORI NEUROENDOCRINI POLMONARI

NOSTRA ESPERIENZA

Donna, 71 anni

APR: ipertensione arteriosa, extrasistole ventricolare con episodi di tachicardia parossistica sopraventricolare all'ECG Holter

Non fumatrice

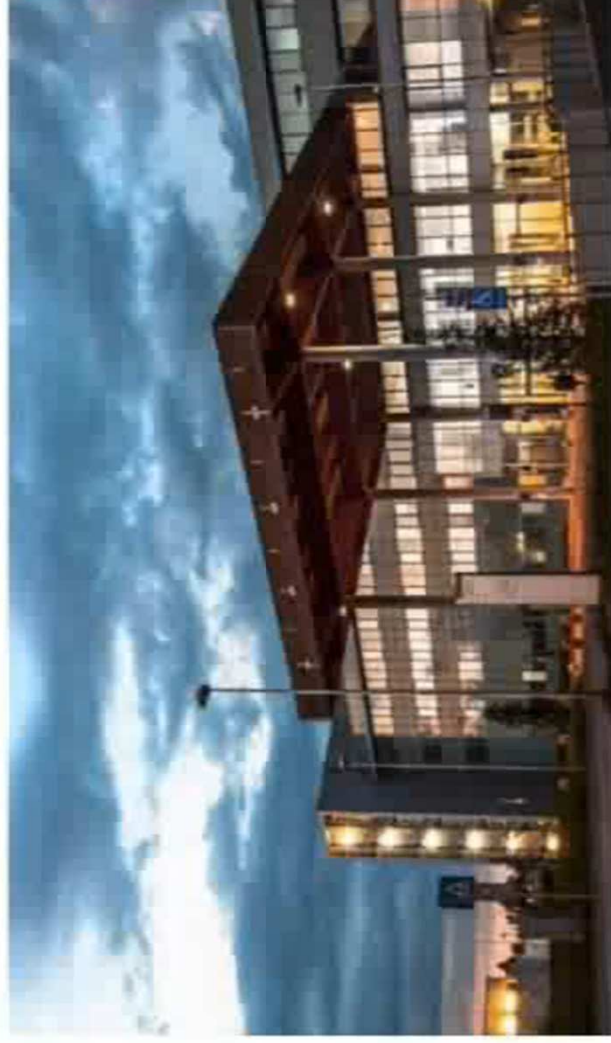
Paziente giunta all'attenzione del Day Hospital Pneumologico per episodi di emoftoe.

CEA e cromogranina nella norma, NSE ai limiti superiori

Broncoscopia: vegetazione neoformata, vascolarizzata di dimensioni <1cm a carico della parete postero-mediale del bronco intermedio suboccludente il lume suggestiva di carcinoide (Esame citologico: referto riferibile a carcinoide)

- ✓ Valutazione multidisciplinare
- ✓ Preparazione all'intervento con spirometria con diffusione e valutazione anestesiológica.

**VIDEO-ASSISTED THORACOSCOPIC
SURGERY (VATS): RIGHT MIDDLE
SLEEVELOBECTOMY**



**GENERAL AND THORACIC SURGERY DEPARTMENT,
SANT'ANNA HOSPITAL, FERRARA ITALY**

Prof. Giorgio Cavalliesco

GRUPPO DI STUDIO NAZIONALE SULLE NEOPLASIE RARE DEL POLMONE



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Ferrara

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FERRARA

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Grazie
dell'attenzione

