



台大醫院肺結節手術經驗分享

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Lung cancer screening trials by LDCT:

1. Detected more patients with early cancer
2. Reduced lung cancer mortality

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Reduced Lung-Cancer Mortality with Low-Dose Computed Tomographic Screening

The National Lung Screening Trial Research Team*

B Death from Lung Cancer

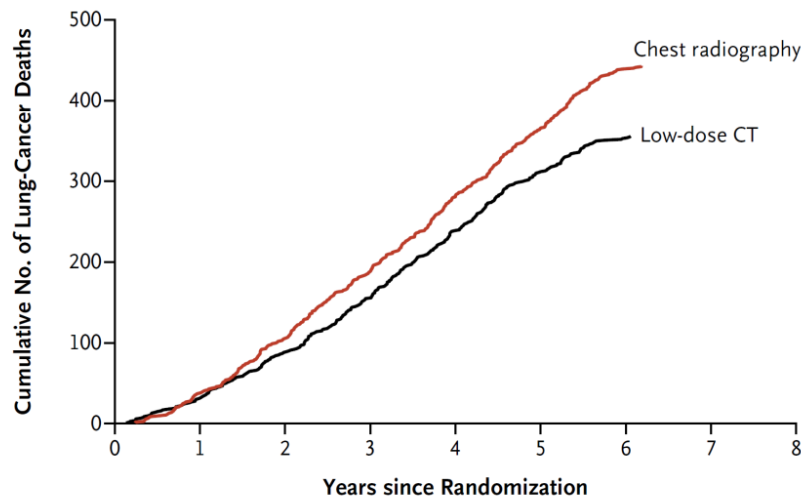


Figure 1. Cumulative Numbers of Lung Cancers and of Deaths from Lung Cancer.

NELSON: CT Screening for Early Lung Cancer Reduces Lung Cancer Mortality

Population-based, randomized controlled trial

Objective: To assess use of computed tomography (CT) screening among asymptomatic men at high risk for lung cancer



15,792

Patients at high risk for lung cancer were randomized to



CT scan screening at baseline, 1, 3 and 5.5 years

Control group: Usual care



Primary Outcomes

157



No. of lung cancer related deaths

250

CT screening reduced the risk of death from lung cancer by 9% to 41% in men over the course of the study, with an overall reduction of 26% at 10 years

Findings presented by Harry de Koning, MD at the World Conference on Lung Cancer 2018.

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英國肺癌篩檢計畫： CT巡迴車 預計篩檢10,000人

The mobile health screening structure and equipment (below). Adoption of a larger-scale program—10,000 lung health checks—begins in April 2019.





National Lung Cancer Screening Program in Taiwan

Pan-Chyr Yang

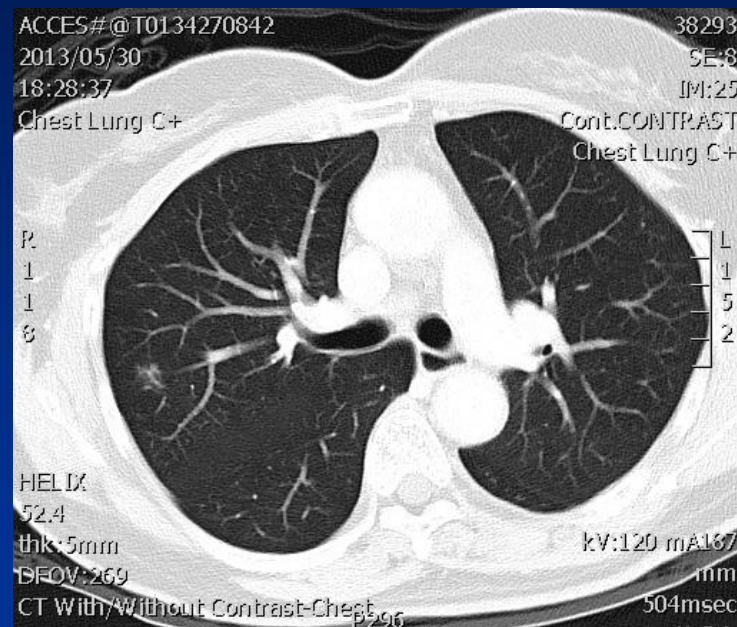
Taiwan Lung Cancer Screening for Never Smoker Trial

TALENT Study Group, Taiwan

National Taiwan University Hospital



More and more patients with early stage lung cancer following LDCT lung cancer screening in Taiwan



Guidelines for lung nodules management: very complicated

- 2012 AATS guideline
- 2015 BTS guideline
- 2017 Fleischner guideline
- 2018 NCCN guideline
- Taiwan guideline?



Surgery for solid nodule if:

1. > 6mm with size increased by followed CT
2. > 8mm by PET

American Association for Thoracic Surgeon

Clinical Guidelines

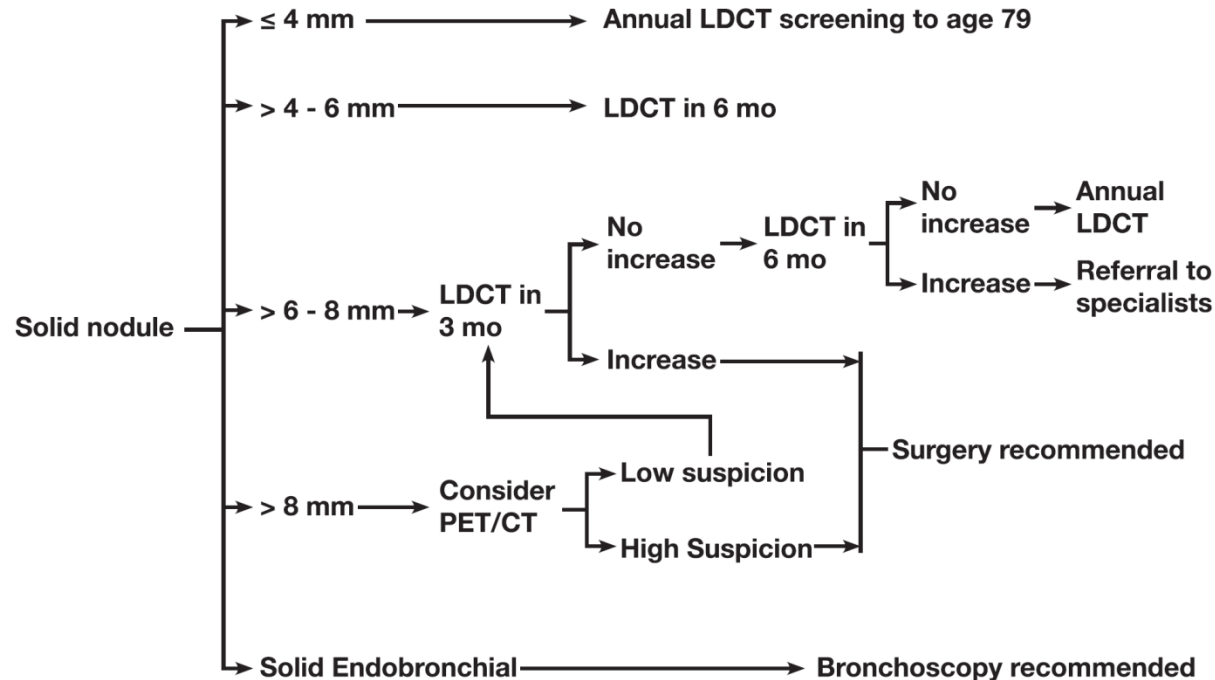
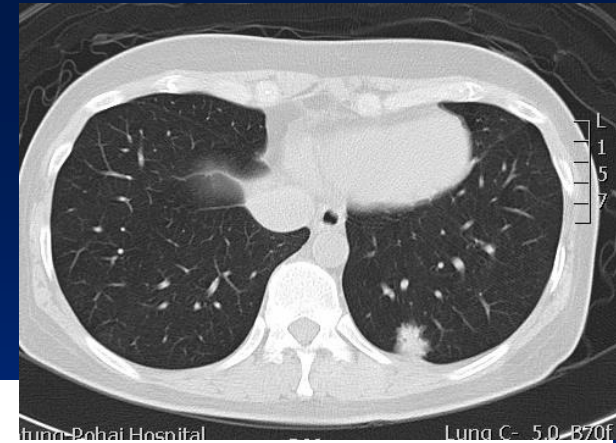


FIGURE 3. AATS lung cancer screening guidelines for solid nodules on low-dose computed tomography (LDCT). PET/CT, Positron emission tomography/computed tomography.

Surgery for GGO if:

1. $> 5\text{mm}$: with size increased by followed CT
2. $> 10\text{mm}$

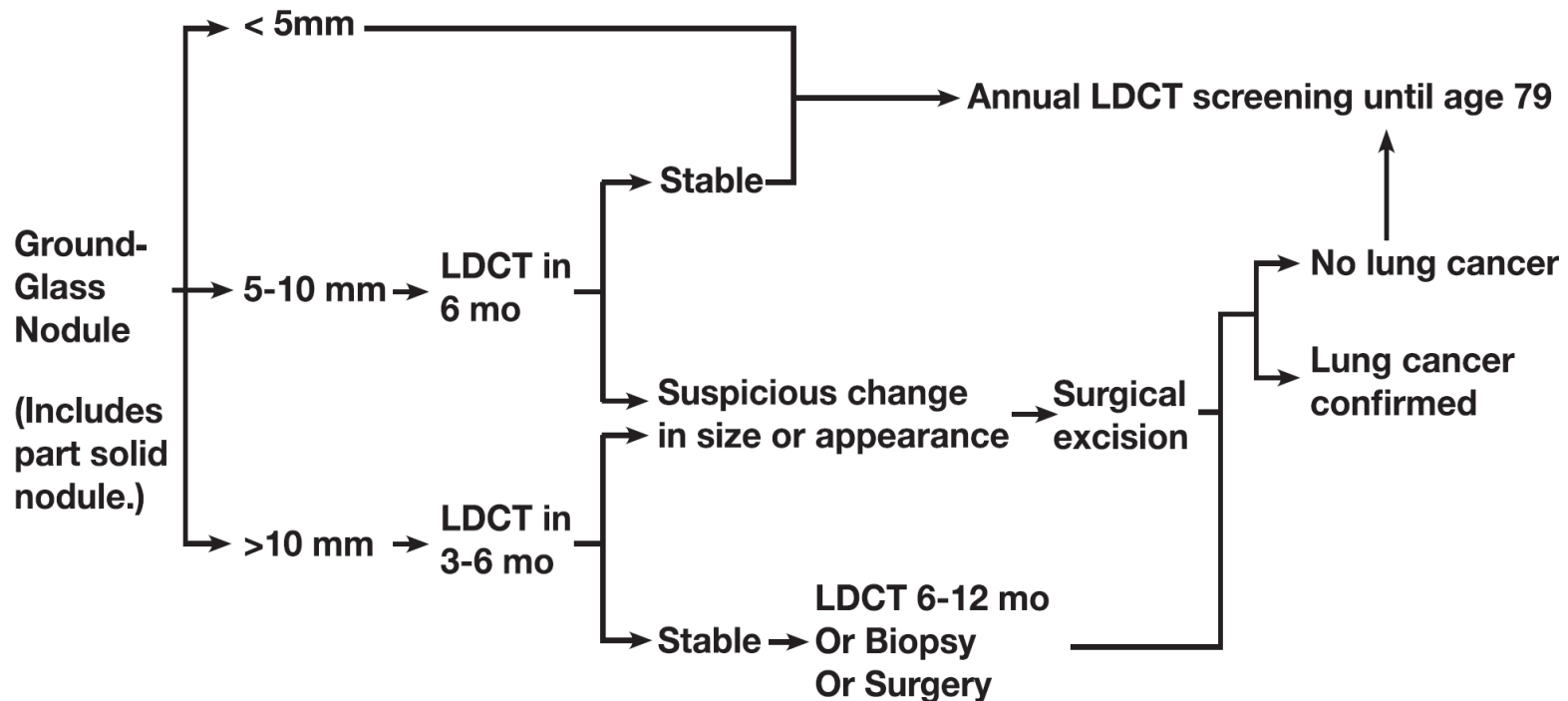


FIGURE 4. AATS lung cancer screening guidelines for ground-glass nodule. *LDCT*, Low-dose computed tomography.

New nodule > 5-6mm: consider surgery if size increased by followed CT

American Association for Thoracic Surgeon

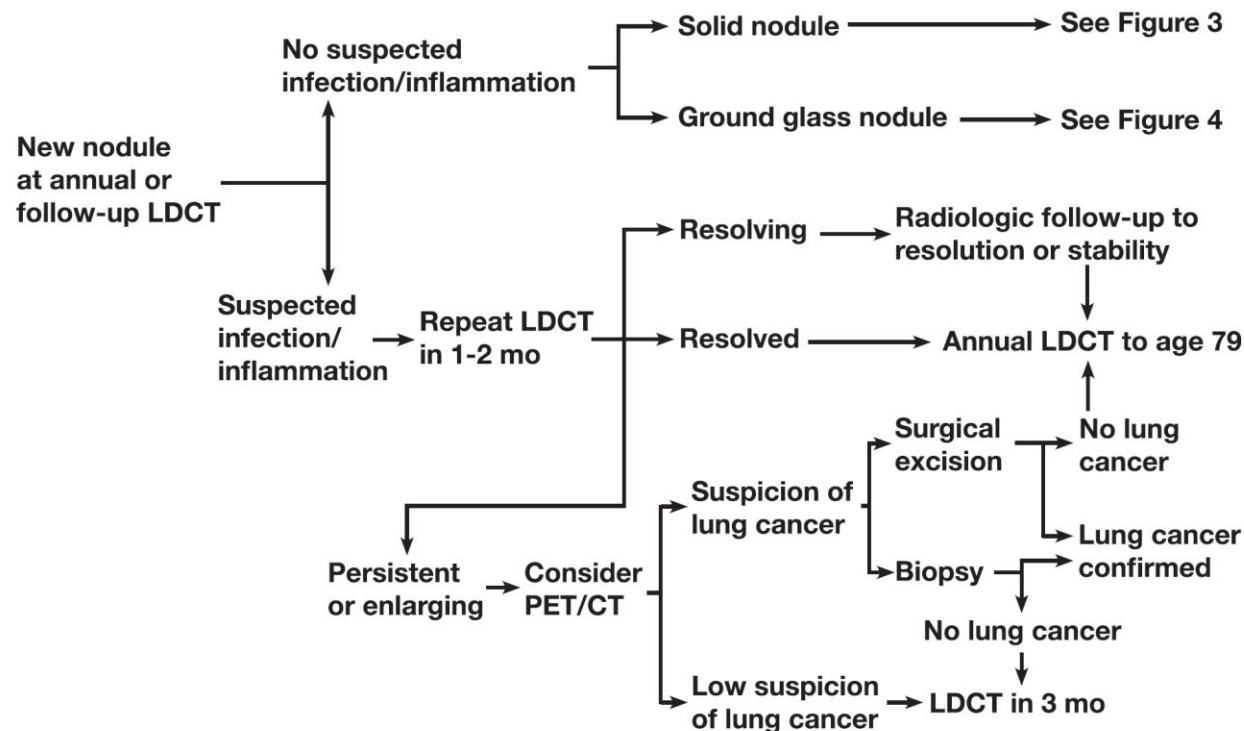


FIGURE 5. AATS lung cancer screening guidelines of new nodule on screening scan on low-dose computed tomography (LDCT). PET/CT, Positron emission tomography/computed tomography.

Surgery or observation for lung nodules in NTUH

- Nodule factors:
 - Size
 - Characteristics: pure GGO, part solid, solid, speculated or well-demarcated?
 - Location: peripheral or central
- Patient factors:
 - Age
 - Cardiopulmonary function
 - Risk of malignancy (cancer history? Family history?)
- Surgical procedures required:
 - Lobectomy vs. segmentectomy vs. wedge resection
 - Localization required?



Early lung cancer surgery: Lobectomy or less?

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E D I T O R I A L

Role of Limited Sublobar Resection for Early-Stage Lung Cancer: Steady Progress

Hisao Asamura, *National Cancer Center Hospital, Tokyo, Japan*

See accompanying articles on pages 2449 and 2456

Recurrence and Survival Outcomes After Anatomic Segmentectomy Versus Lobectomy for Clinical Stage I Non-Small-Cell Lung Cancer: A Propensity-Matched Analysis

Rodney J. Landreneau, Daniel P. Normolle, Neil A. Christie, Omar Awais, Joseph J. Wizorek, Ghulam Abbas, Arjun Pennathur, Manisha Shende, Benny Weksler, James D. Luketich, and Matthew J. Schuchert

Lobectomy v.s. sublobar resection:

312 cases in each arm

Comparable survival in both groups with stage I lung cancer

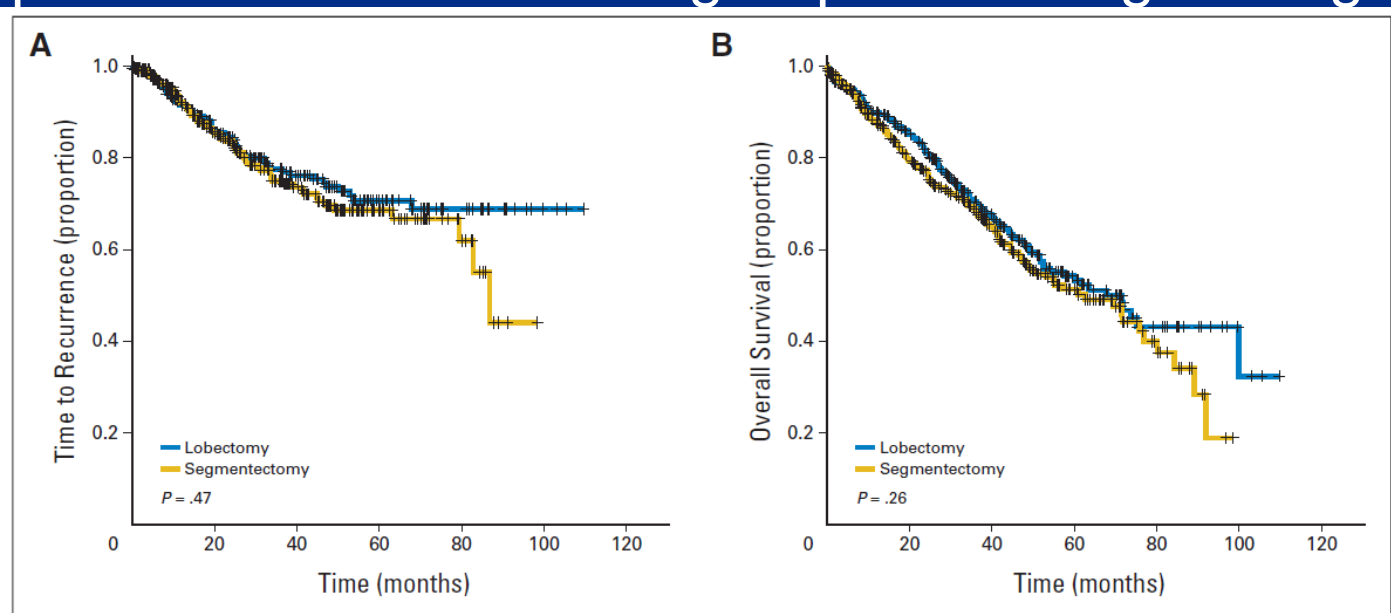
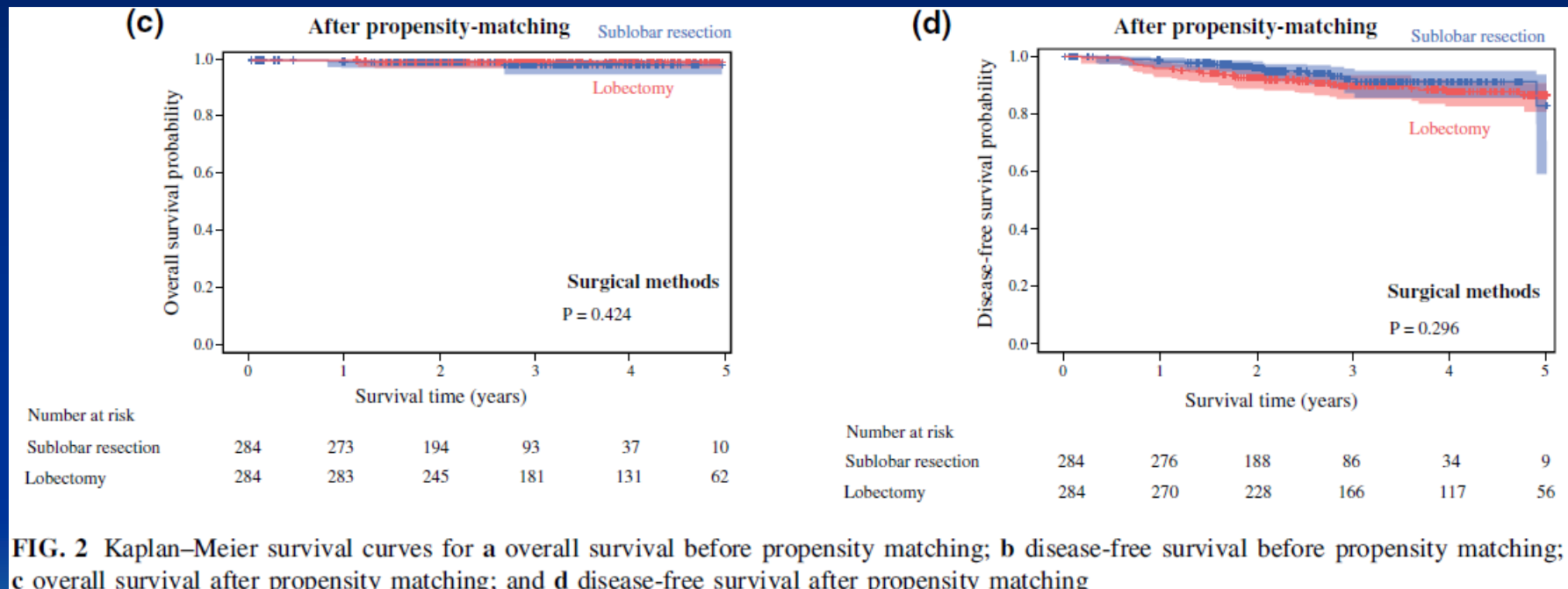


Fig 1. Kaplan-Meier survival estimates for (A) time to recurrence and (B) overall survival between propensity score-matched patients undergoing segmentectomy or lobectomy.

Propensity-Matched Analysis Comparing Survival After Sublobar Resection and Lobectomy for cT1N0 Lung Adenocarcinoma

Xu-Heng Chiang, MD¹, Hsao-Hsun Hsu, MD, PhD¹, Min-Shu Hsieh, MD, PhD², Chia-Hong Chang, MS³, Tung-Ming Tsai, MD¹, Hsien-Chi Liao, MD¹, Kuan-Chuan Tsou, MD⁴, Mong-Wei Lin, MD, PhD¹, and Jin-Shing Chen, MD, PhD¹

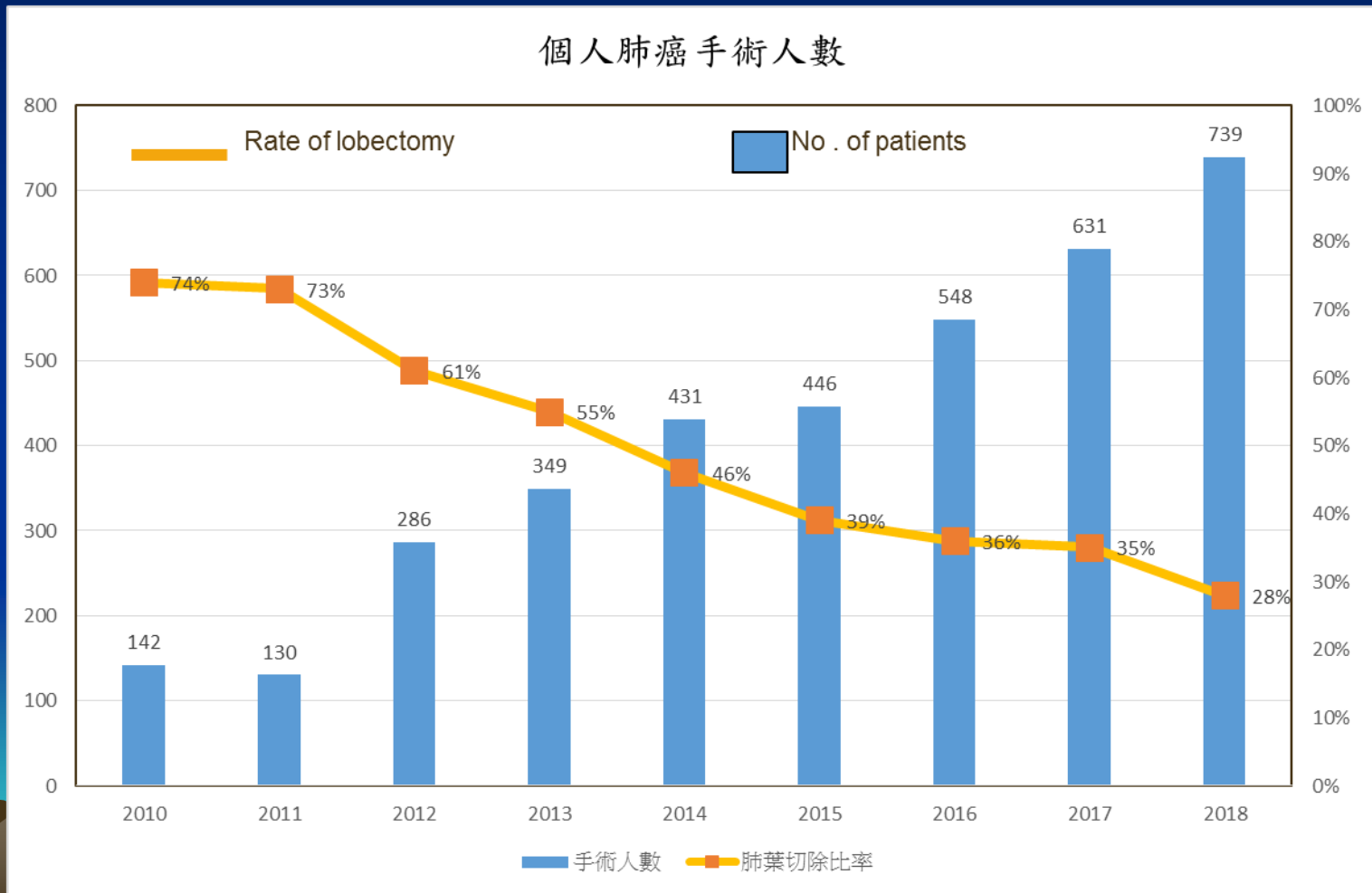


Lobectomy v.s. sublobar resection:

284 cases in each arm

Comparable survival in both groups with stage IA lung cancer

個人肺癌手術人數及術式： 越來越多的sublobar resections (2010-18, 3702 cases)



民眾教育版：

節結或毛玻璃病變需考慮手術情況

- <5mm：通常不建議手術
- 5-10mm追蹤變大或變明顯：手術
- > 10mm 且形狀懷疑惡性：手術
- 第一次小於一公分之節結：通常先追蹤

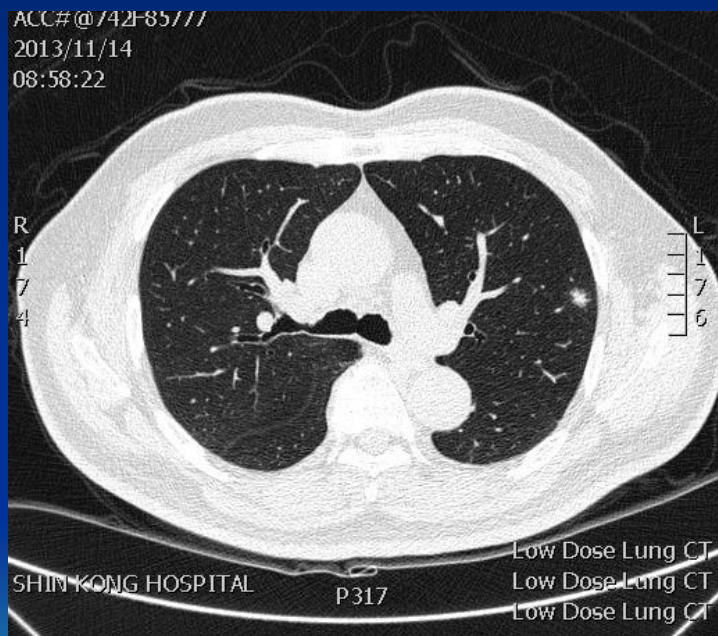


節結或毛玻璃病變之追蹤：

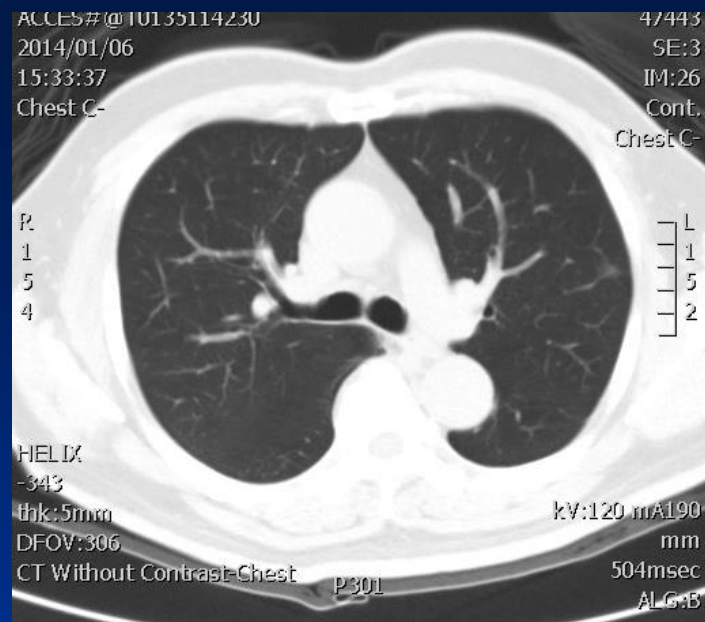
- <3mm : LDCT at 12months, then every 2 years
- 3-5mm : LDCT at 6-12months, then every 12months
- 5-10mm : LDCT at 3-6months, then every 6-12 month



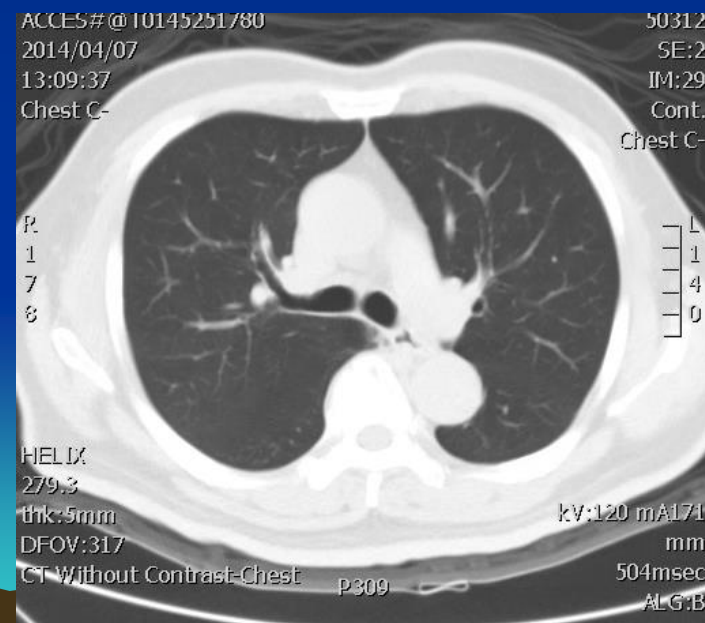
為什麼要重複CT 檢查?



2013/11/14



2014/1/6



2014/4/7

356 cases 需CT定位之肺結節

手術結果(2018.1.1 to 2018.12.3)

Diagnosis	No. (%)
Cancer or precancerous lesions	323 (90.7%)
Adenocarcinoma	258 (72.5%)
In situ adenocarcinoma	48 (13.5%)
Atypical adenomatous hyperplasia	15 (4.2%)
Carcinoid	1 (0.3%)
LELC	1 (0.3%)
Benign	33 (9.3%)

Summary:

- Lung nodule management suggestions in Taiwan: still controversial
- Early lung cancer surgery: sublobar resection vs lobectomy?
- Sublobar resection for lung cancer: Intentional vs compromised.





感謝：

主辦單位邀請：

台灣胸腔外科醫學會 徐理事長中平
許秘書長瀚水

各位好朋友踴躍參加