Patterns of recurrence and follow up after SABR
Salvage resection after SABR
Proferred papers discussion

ELCC 2015

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Disclosure slide

I have no potential conflict of interest to report regarding this presentation

Patterns of disease recurrence after SABR for early stage NSCLC:

Optimizing follow-up schedules for salvage therapy

- **Very large experience reported by leading Dutch group**
- **SABR for cT1-2N0M0 proven or suspected NSCLC**
- **2/3 of patients did not have tissue confirmation of cancer!!!**
- **About 2/3 of patients were deemed non surgical at Dx**
- **Decent follow up of over 4 years**
- **Local failures only 5.3% (tissue 39%, CT PET 70%)**
- **Failures L+/-N in 2/3 of recurrence and L+M in 1/3**
- **TTR median 22 months (7-87 range)**
- **No studied factors predicted LF**

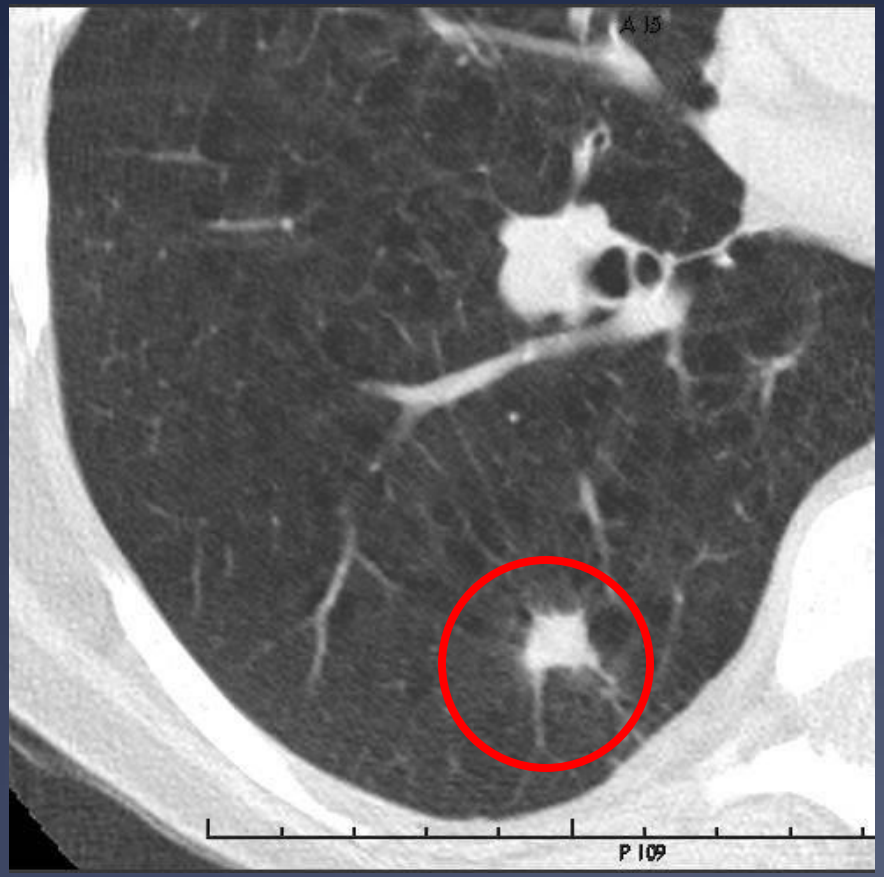
Discussion

- **High number of secondary primaries identified**
  - 1 year: 1.9%
  - 3 year: 11.7%
  - 5 year: 16.7%
- At a median of 34 months (range 3-105 months)

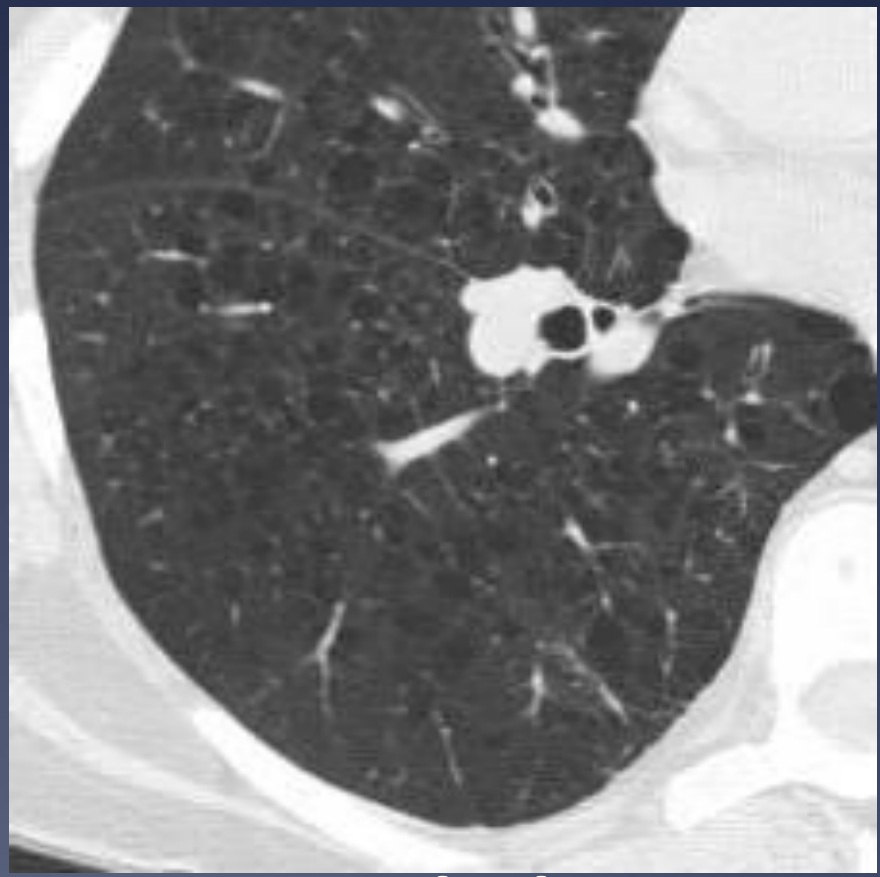
Discussion

- **Long term f up is recommended after SABR for monitoring the treated area and pick up new primaries and I agree**
  - "CT at 3, 6, 12, 18, 24 months, annually thereafter"… depending on the biology of the treated tumor (oops… that means we may need tissue…) the data presented would suggest that some high risk lesions be followed Q 6 months until year 5

Tissue confirmation before treatment…



1.5 cm spiculated mass



3 months later

2nd ESMO Consensus Conference on Lung Cancer: early-stage non-small-cell lung cancer consensus on diagnosis, treatment and follow-up

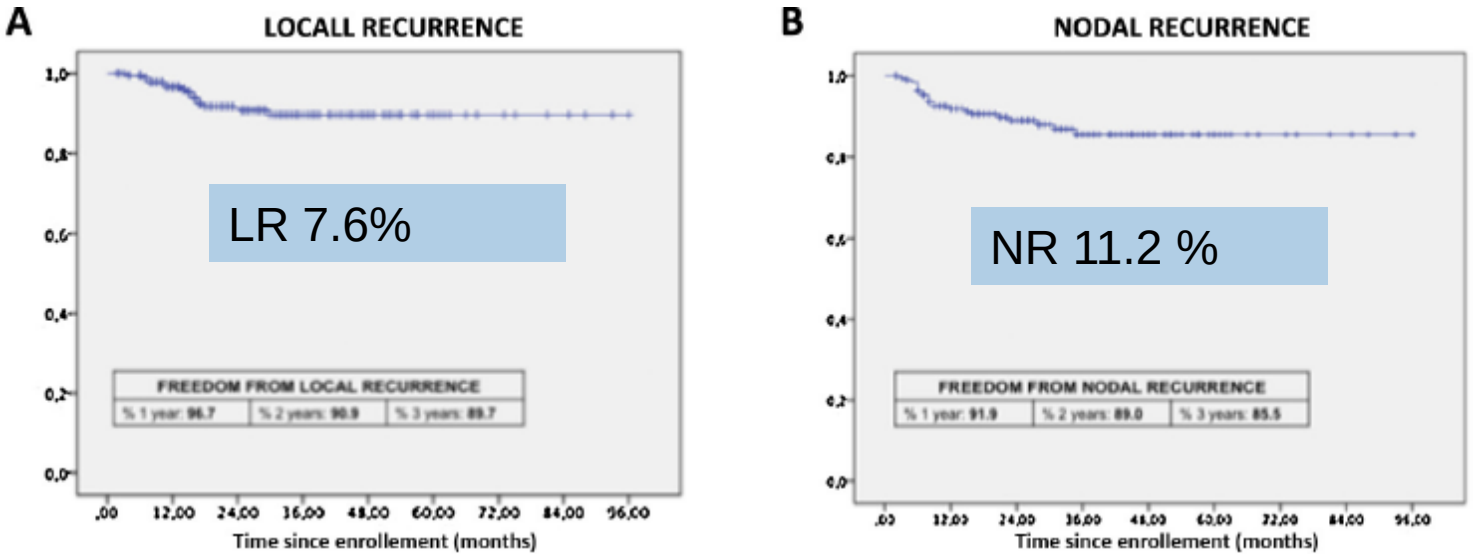
J. Vansteenkiste[1], L. Crinò[2], C. Dooms[1], J. Y. Douillard[3], C. Faivre-Finn[4], E. Lim[5], G. Rocco[6], S. Senan[7], P. Van Schil[8], G. Veronesi[9], R. Stahel[10], S. Peters[11], E. Felip[12] & Panel Members*†

- A pre-treatment pathological diagnosis is strongly recommended for all patients before SABR, unless a multidisciplinary tumour board is of the opinion that the risk-benefit ratio of the procedure is unacceptable [III, B].
- An attempt should generally be made to obtain a pathological diagnosis before SABR. In the event that tissue sampling is considered excessively hazardous, there should be at least an 85% chance of malignancy, based upon accepted criteria [IIIA].

Annals of Oncology 25: 1462–1474, 2014

Stereotactic Ablative Radiotherapy for stage I histologically proven non-small cell lung cancer: An Italian multicenter observational study

Umberto Ricardi[a], Giovanni Frezza[b], Andrea Riccardo Filippi[a,*], Serena Badellino[a], Mario Levis[a], Piera Navarria[c], Fabrizio Salvi[b], Michela Marcenaro[d], Marco Trovò[e], Alessia Guarneri[a], Renzo Corvò[d], Marta Scorsetti[c]



Lung Cancer 84 (2014) 248–253

Outcomes of surgical salvage for local failures following stereotactic ablative radiotherapy (SABR)

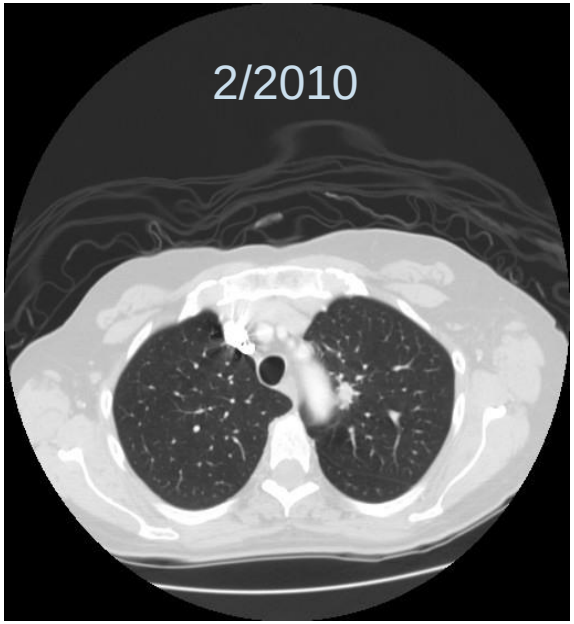
- **17 pts had 21 operations: 9 salvage NSCLC, 8 salvage metastasectomy**
- **Median TTR after SABR was 16 months (6-48 range)**
- **Only 4/17 pts had tissue confirmation preop**
- **Difficult pleural space only 5/21 ops**
- **30 day op mortality 0%**
- **5/9 salvaged NSCLC were upstaged (3/5 N+)**

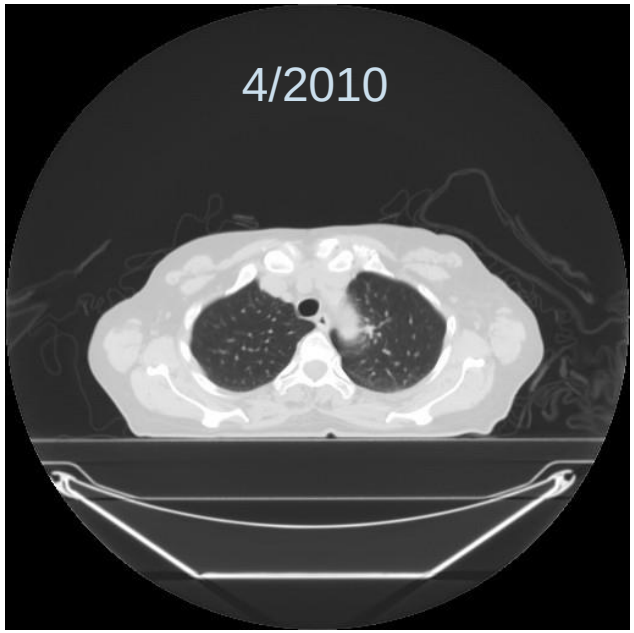
- **Agree that it can be done and in my experience less difficult than after previous EBRT,**
  - central non – hilar lesions > very easy…

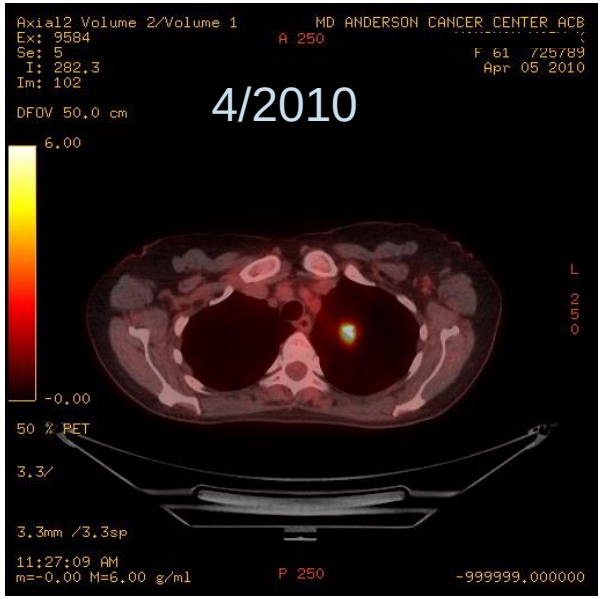
Outcomes of surgical salvage for local failures following stereotactic ablative radiotherapy (SABR)

- **In first paper, only 9 of the 12 patients that failed SABR were able to undergo salvage… 25% were not…**
- **RTOG 0618: 26 potentially operable pts treated by SABR (T1 =23, T2 =3) , all biopsy proven cN0M0 (ASCO 2013)**
  - Local Failure Rate 2 yrs 19.2%
  - Regional Failure Rate R 2 yrs 11.7%
  - Distant Failure Rate 2 yrs 15%
  - Only 1 pt could undergo salvage lobectomy…
  - Are we missing an opportunity to cure these individuals by “delaying” surgery by 2 years or more??

Bx proven LUL NSCLC

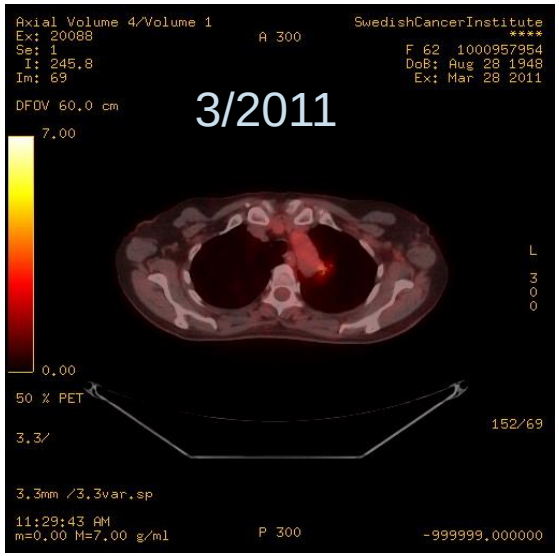


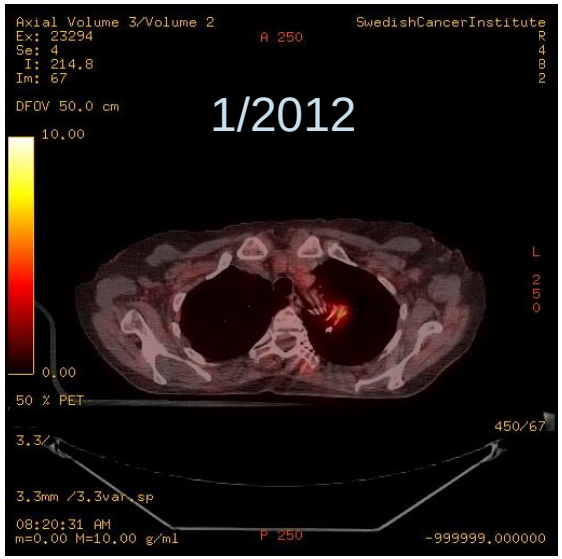


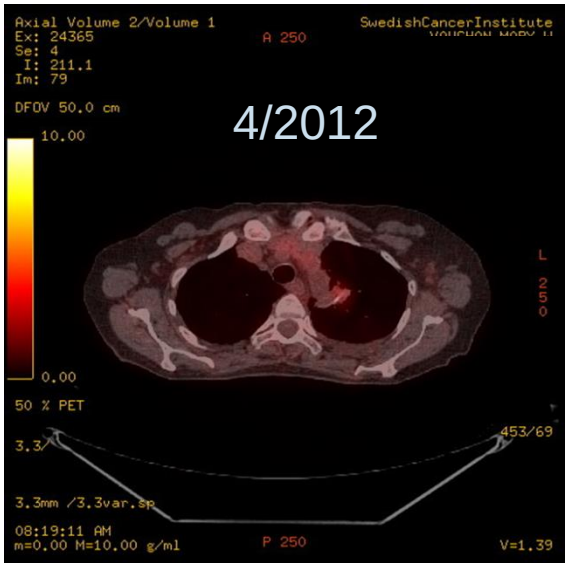


2.2010* > 50 Gy RT (pt preference) > 4.2010

* 2.2010 Pneumothorax complicated the CT guided bx







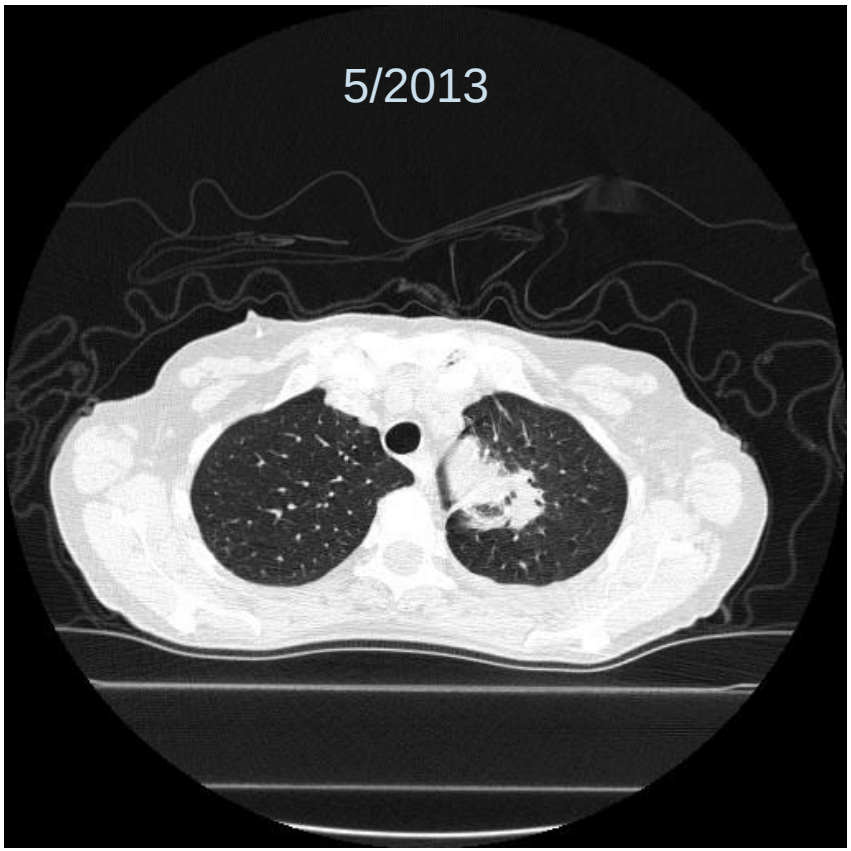
May 2011 SABR (Cyberknife) for radiological progression, no bx

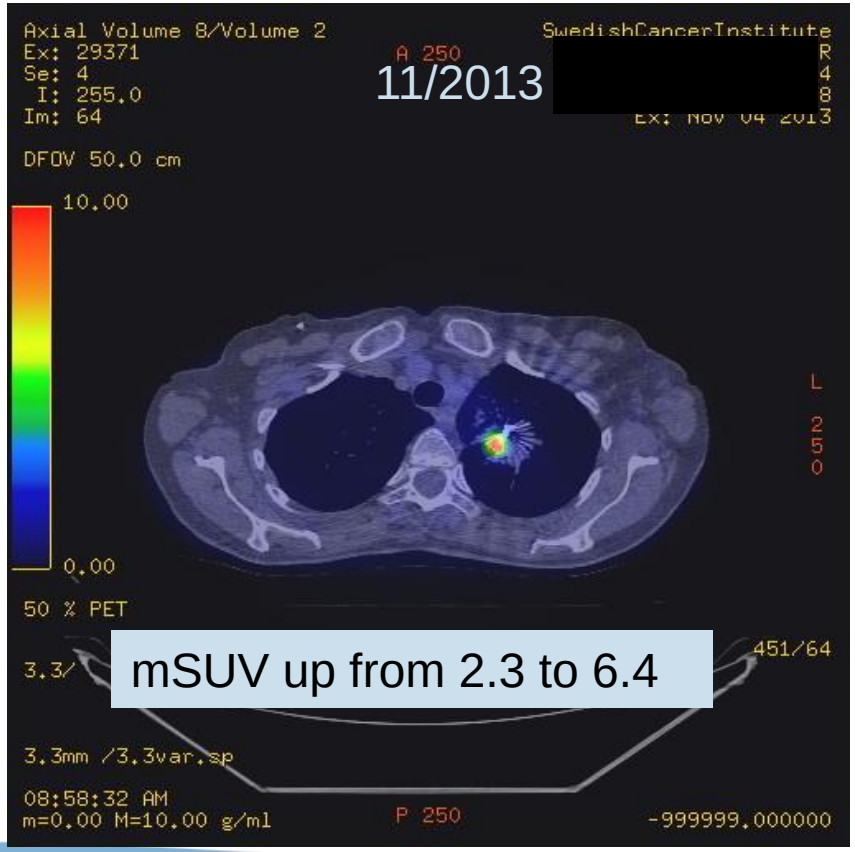
Pneumothorax complicated the placement of fiducials!

June 2012 SABR repeated for radiological progression, no bx

Referred for surgery 11/2013

Refused CT guided bx and nav bronch declined by insurance!





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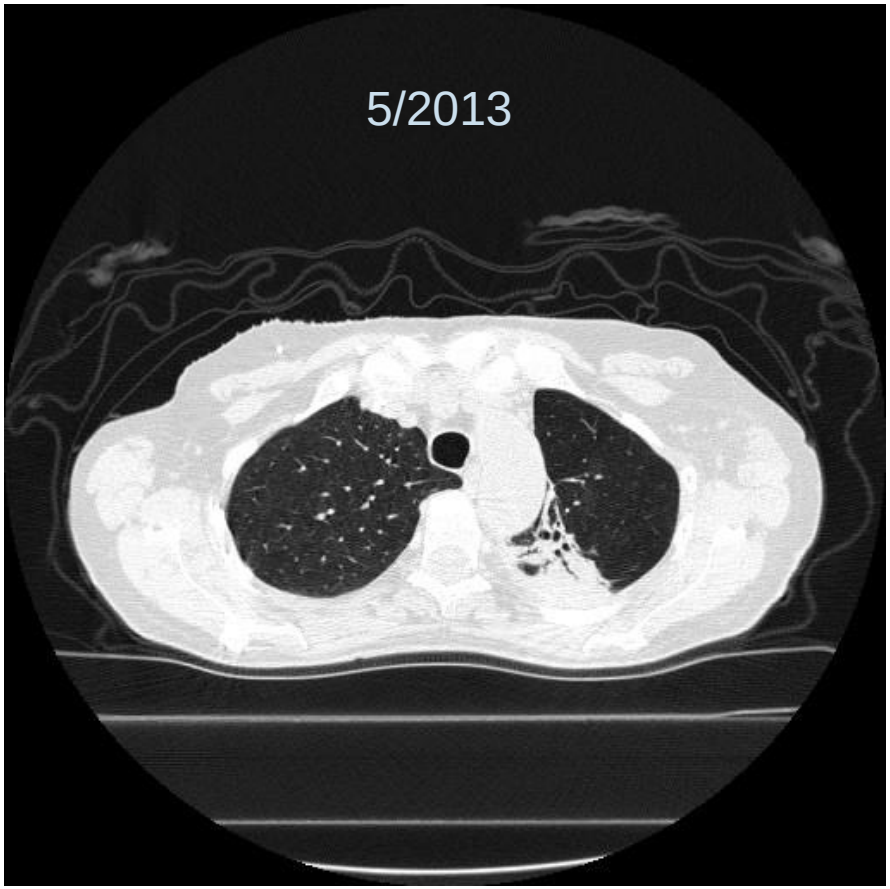
LUL resection 12/16/2013

- **Open resection, hilar dissection relatively easy**
- **Bronchial stump coverage w ICM**
- **LOS 3 days…**
- **Path : NED**

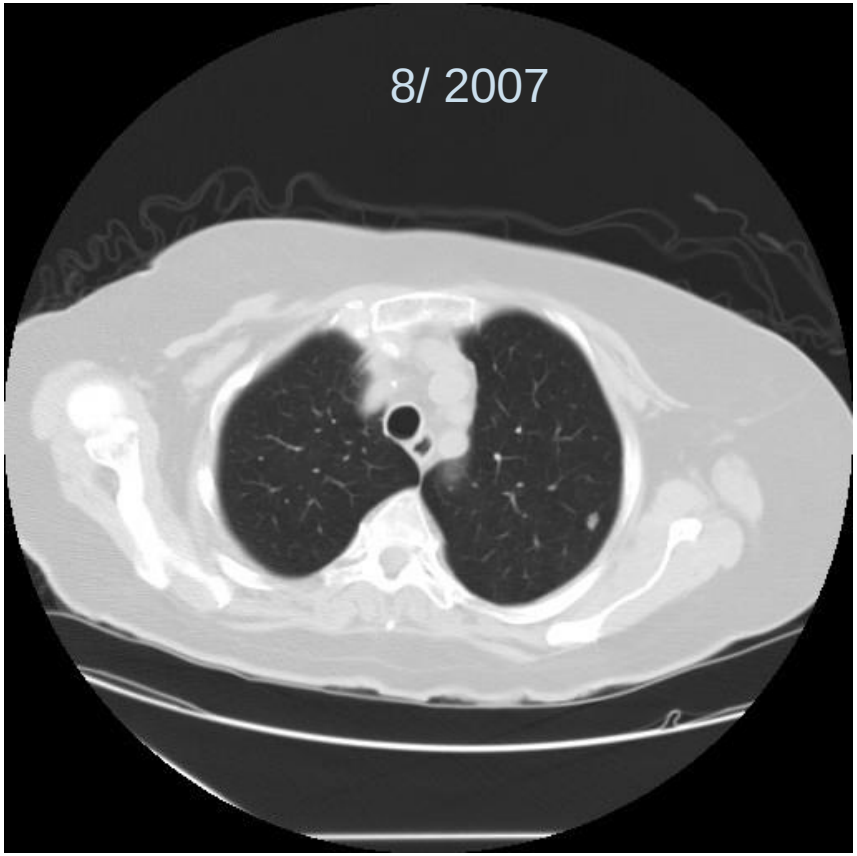
Since … no need for PET scans every 6 months…

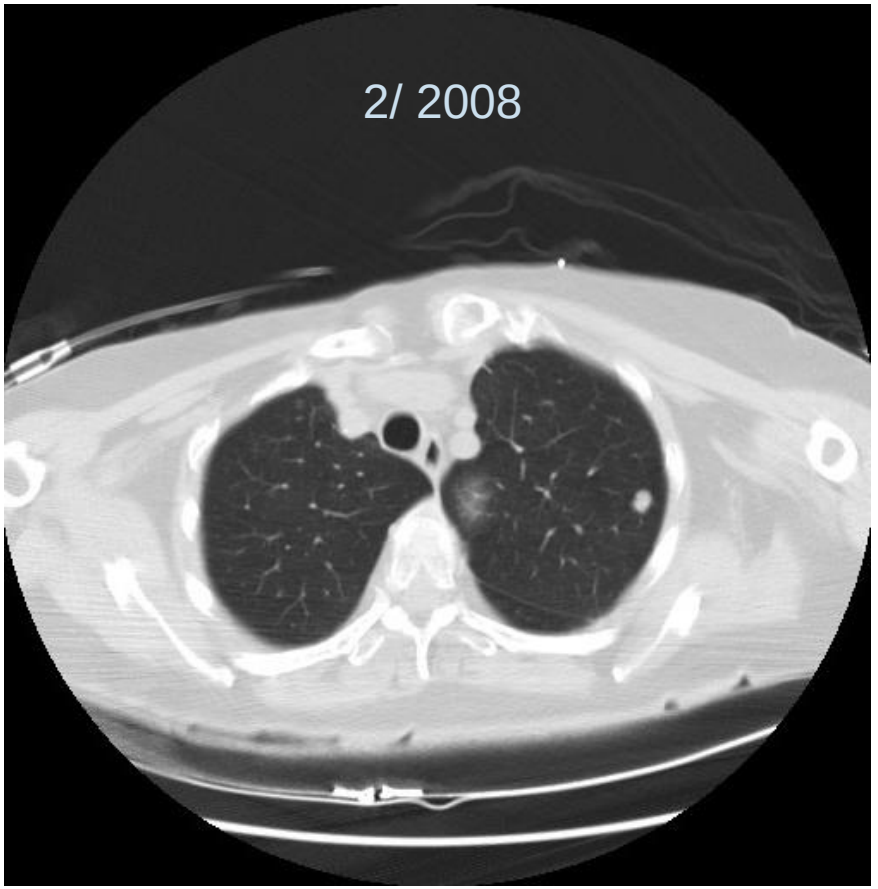
Except for the stable radiation changes in the LLL, her imaging is normal post LULobectomy

LLL damage from EBRT in 2010!

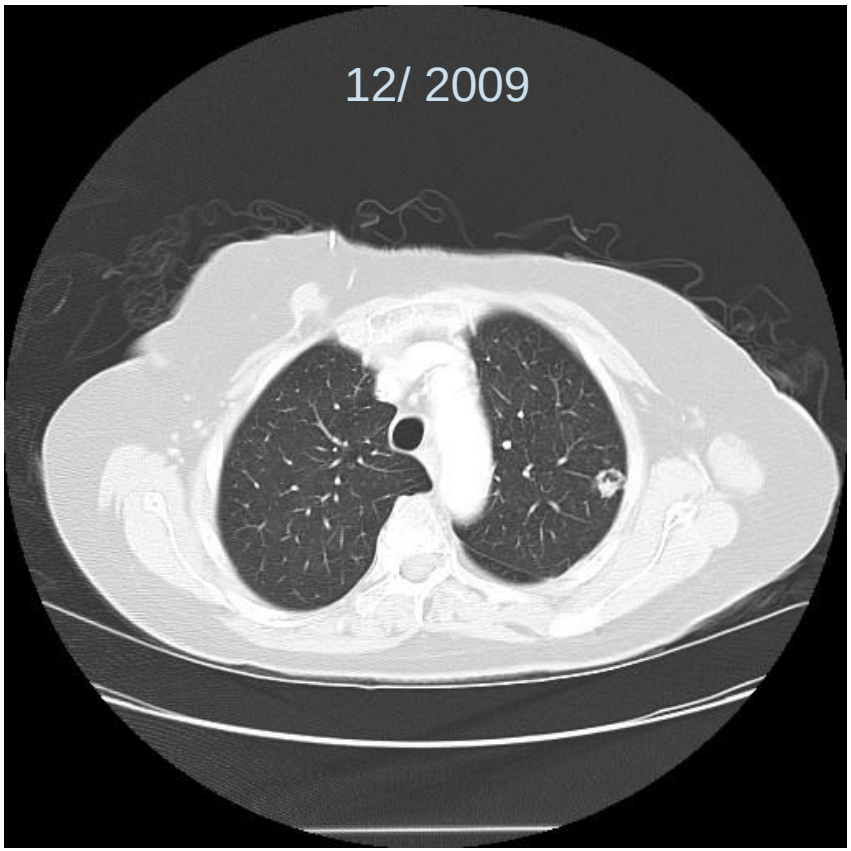


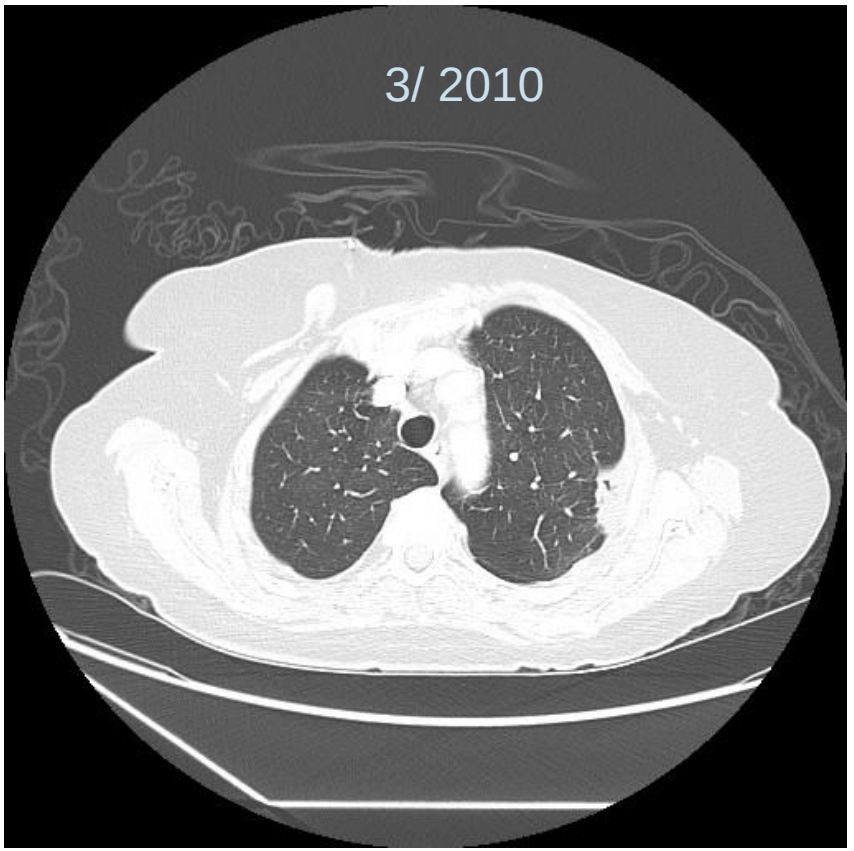
Solitary M1 colon ca: bx proven 80 y old



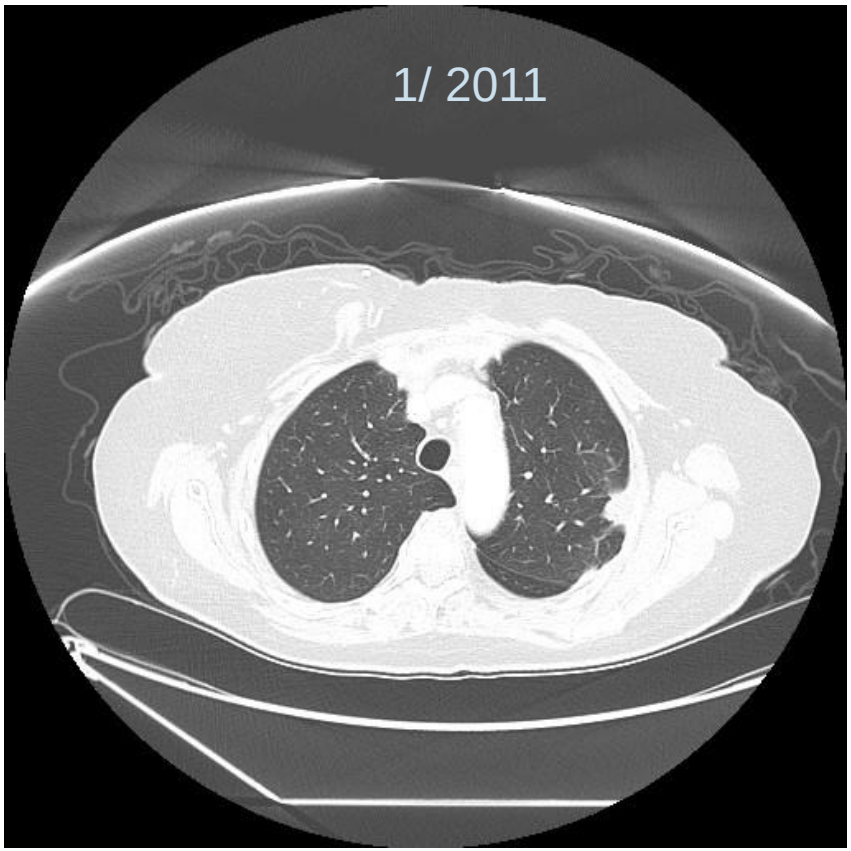


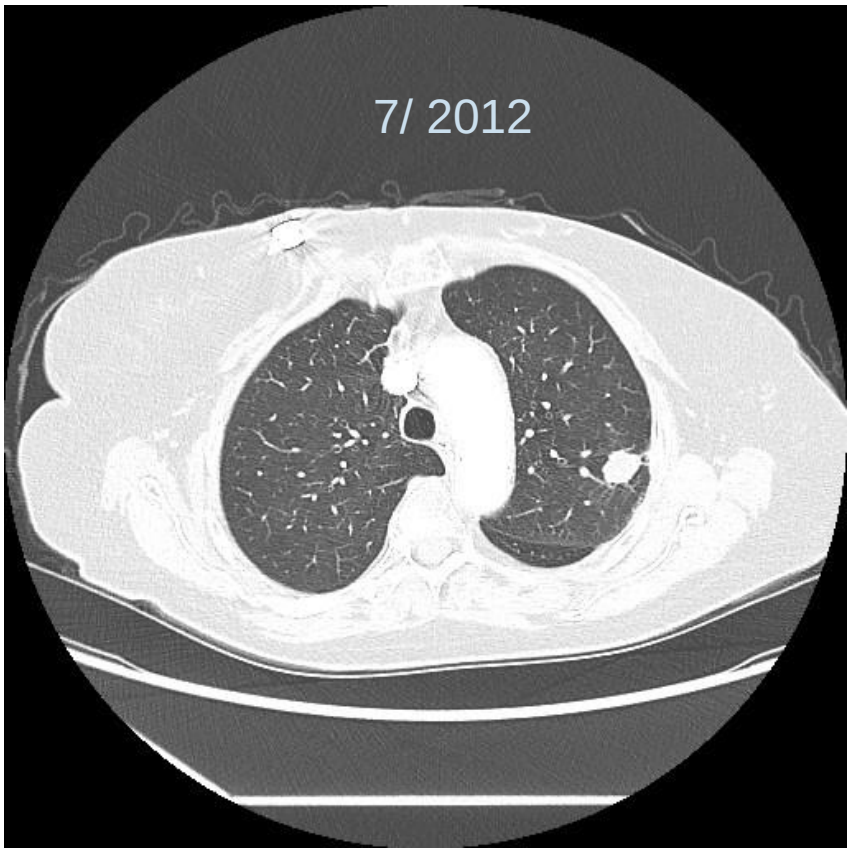
Chemo ad 12/ 2009 > RFA



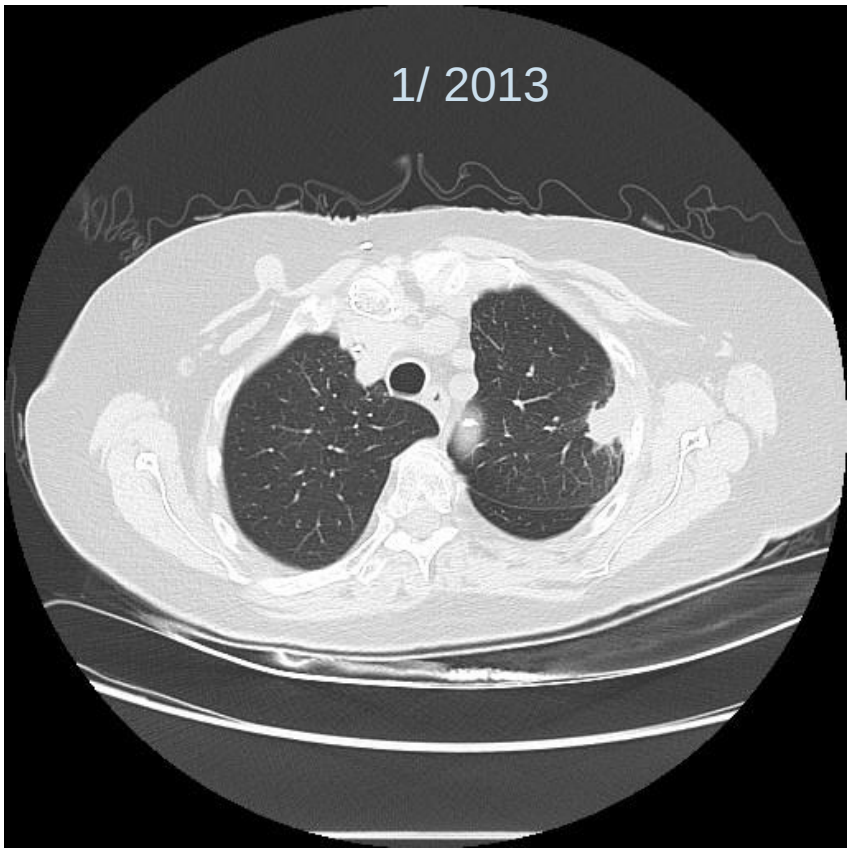


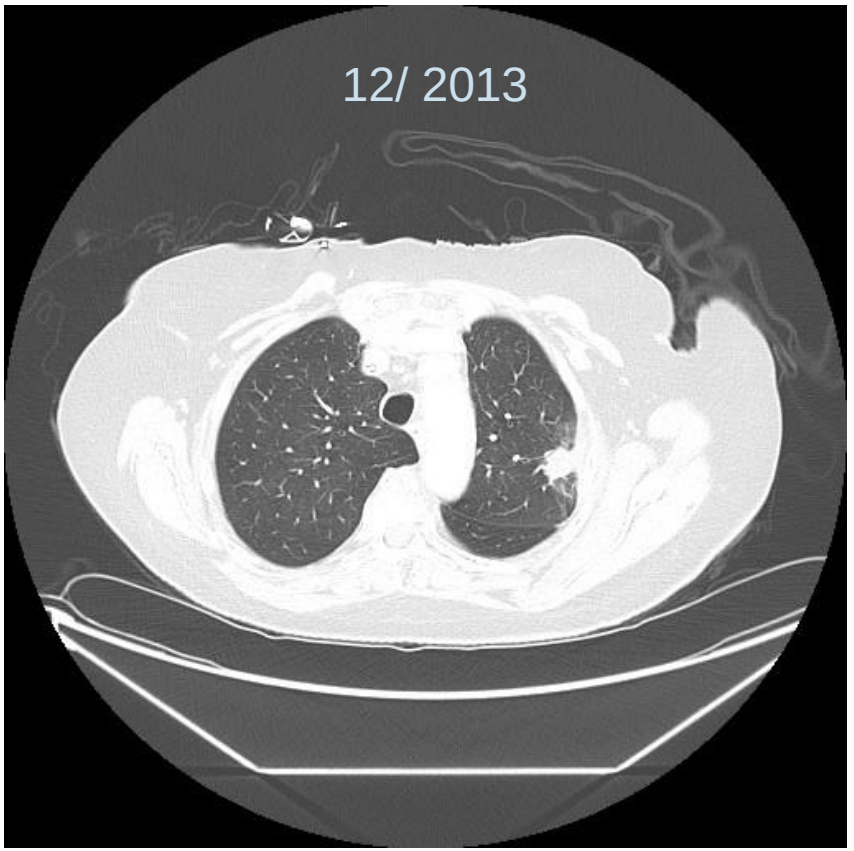
Progressed in 6/2012 > SABR
Still solitary lesion , now 85 y old!



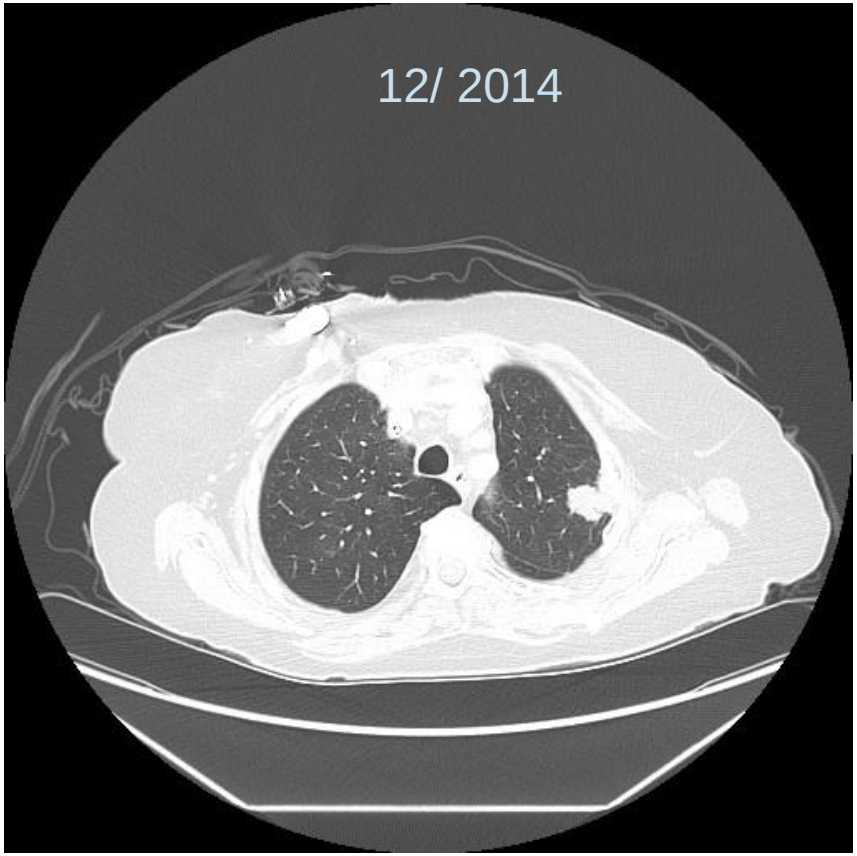


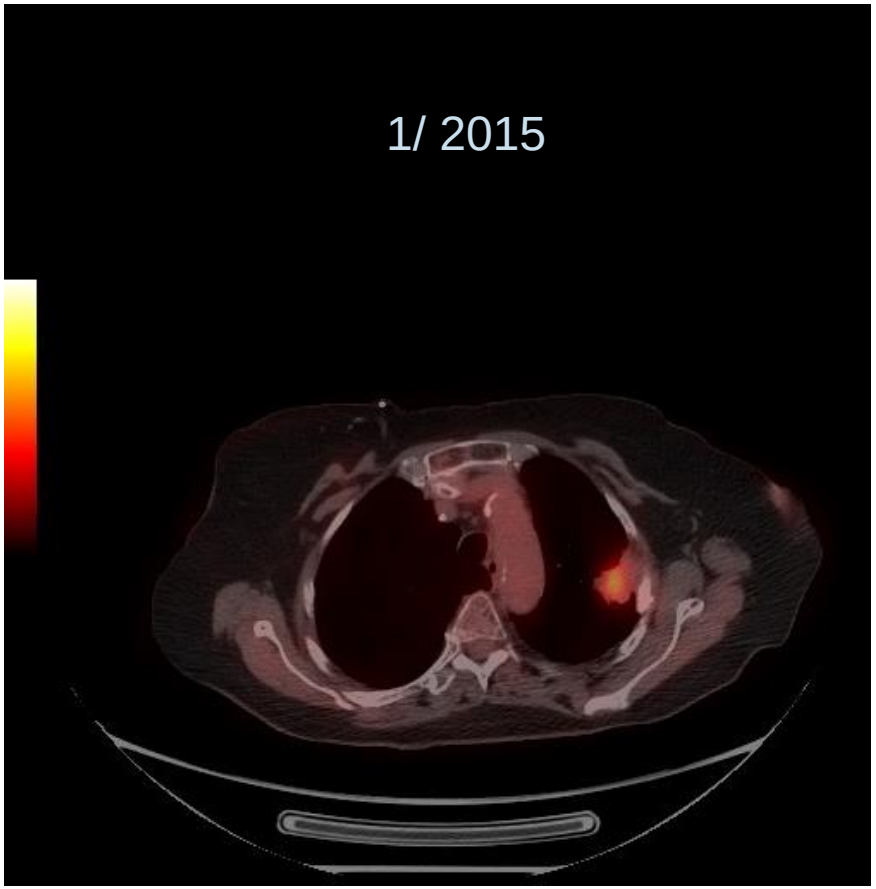
Develops adjacent rib fracture!





Consults 1/2015 as the lesion is growing, more PET avid, still solitary, she is now 88…





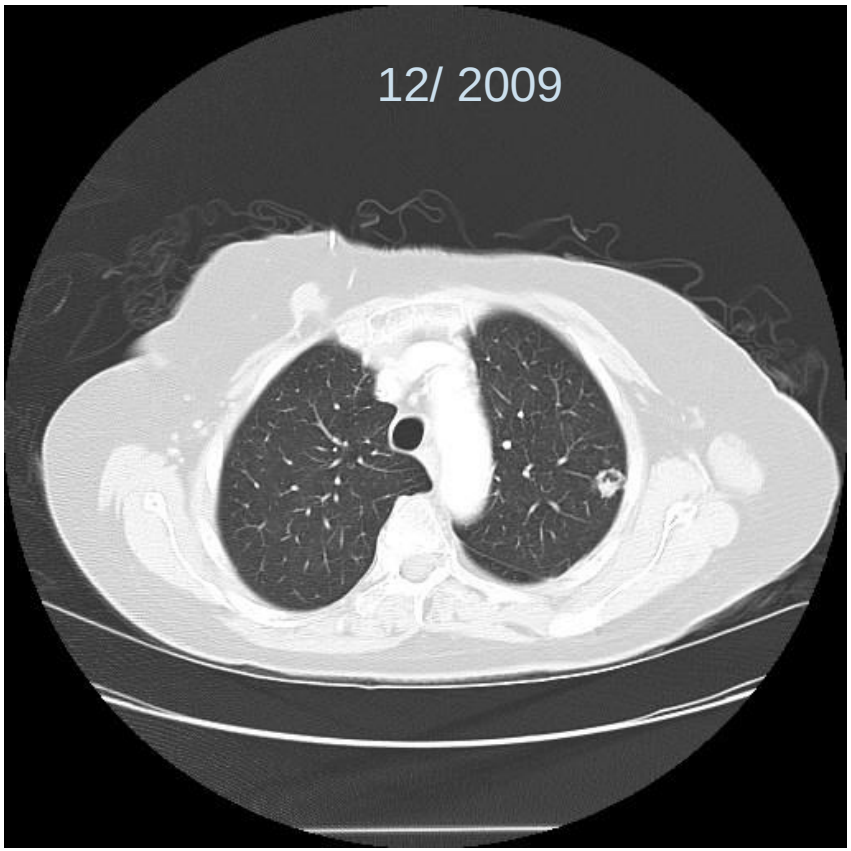
Resection 3/2/2015

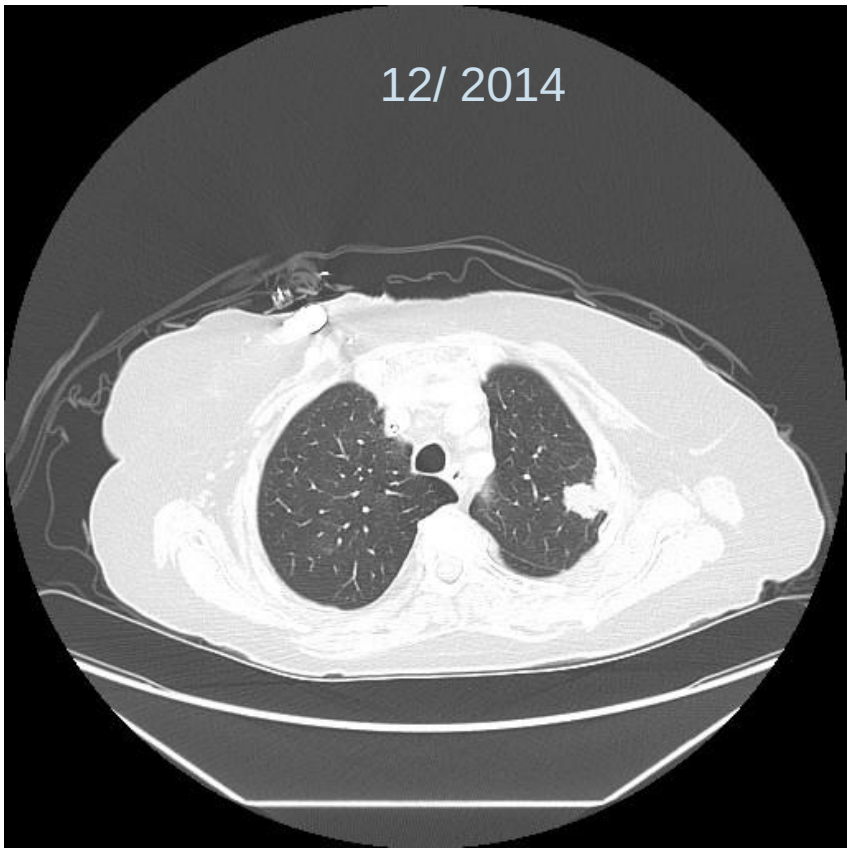
- **VATS extrapleural wedge metastasectomy**
- **LOS 2 days…**
- **Path : M1 colon, 4.1 cm, R0**

Finally NED …

8 years and many procedures and images later ???

We were lucky… but surgery would have been easier in 2009… and probably safer at 82





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SABR or Surgery

- **My thoughts:**

For operable patients, surgery remains the standard of care

For “inoperable” patients, mutidisciplinary evaluation /discussion should happen… involving the surgeon

Inoperability is not the same for everyone!

SABR or Surgery

- **My thoughts:**

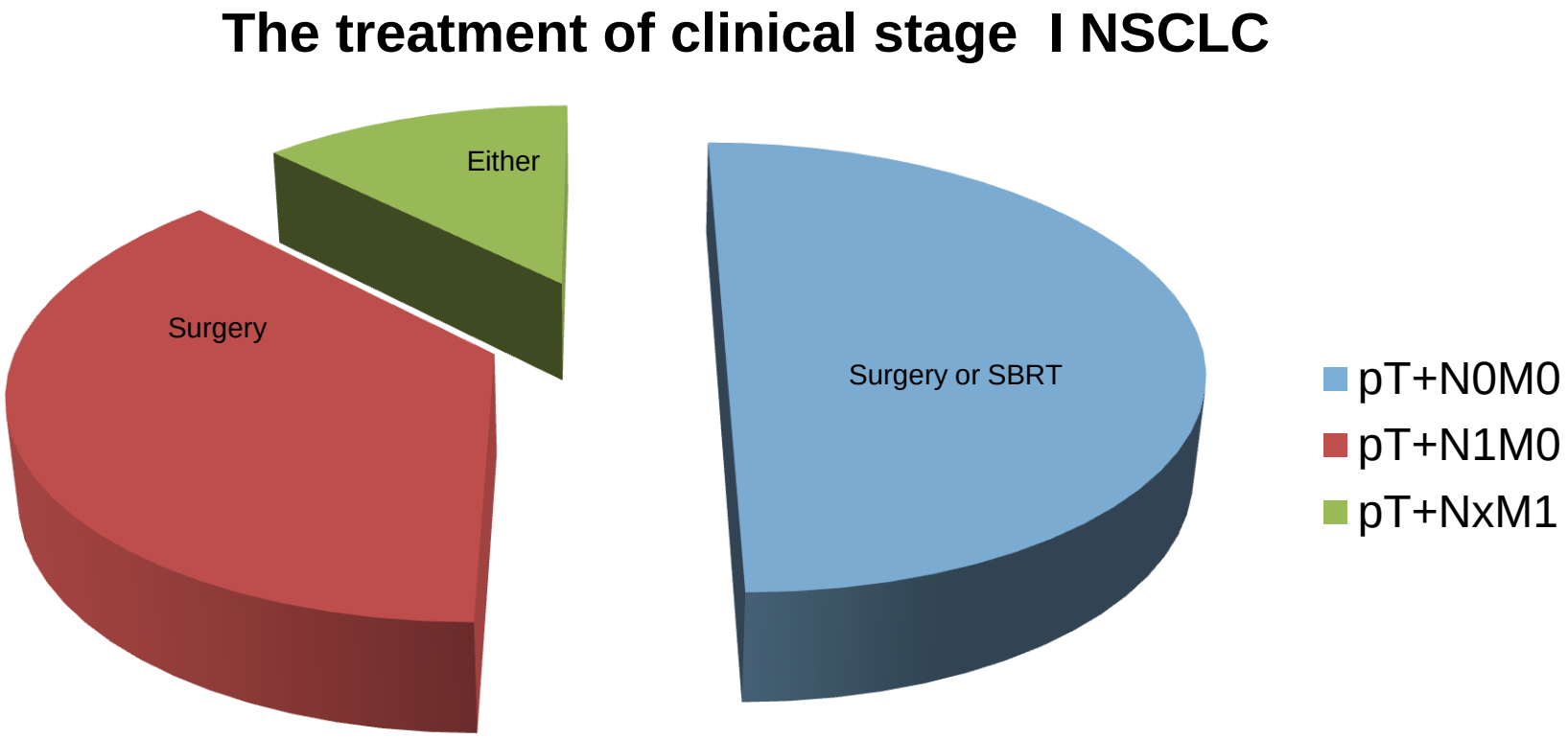
Clinical stage I cancer does not always translate into pathological stage I cancer

For solid pericentimeter lesion, 10% are found to have nodal involvement after good surgery…

The larger the cT, the higher the risk of pN involvement

A proportion of these N+ patients are doomed, another proportion benefit from the nodal resection +/- adjuvant chemotherapy

Surgery vs. SABR



Wedge resection vs. anatomical resection