

Where do we stand with lateral compartment lymphadenectomies?

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No disclosures

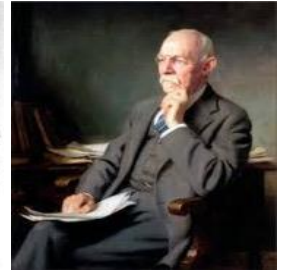
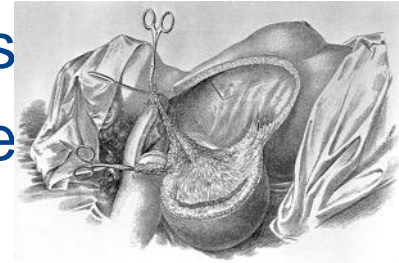
Miranda Kusters



- History surgical oncology – lymph nodes
- Lateral lymph node dissection in rectal cancer
- Radiotherapy
- MR imaging
- TNT

Regional lymph nodes

- Resect tumour with wide margins
- En-bloc with regional lymph node



Traditional model for explaining cancer progression:

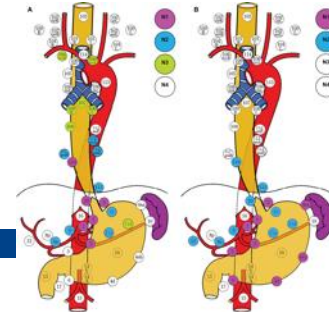
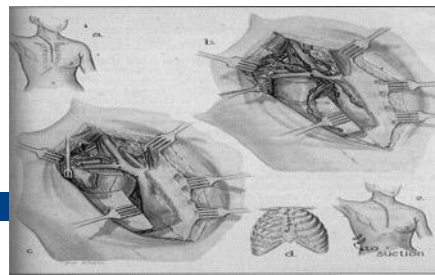
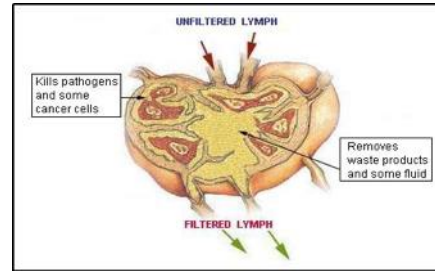
PRIMARY TUMOR



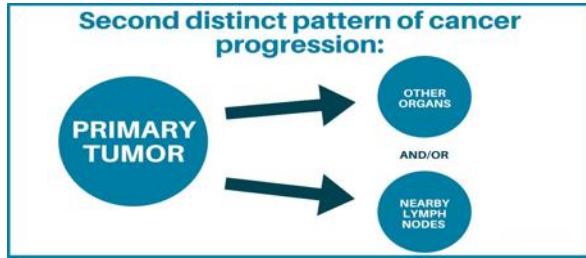
NEARBY LYMPH NODES



OTHER ORGANS



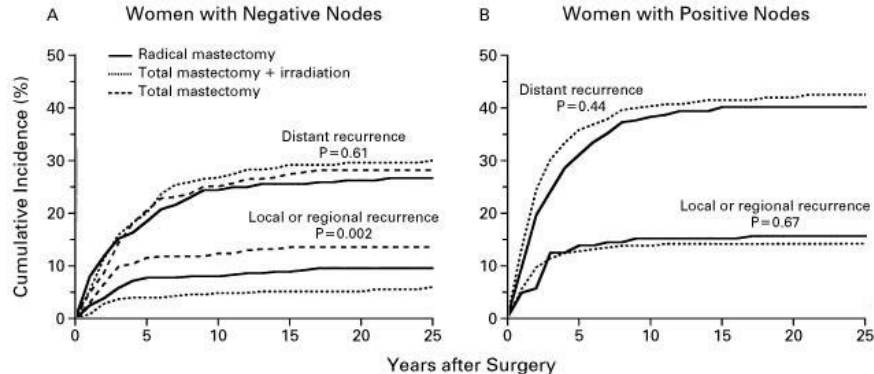
Regional lymph nodes



“indicators, not governors of survival”

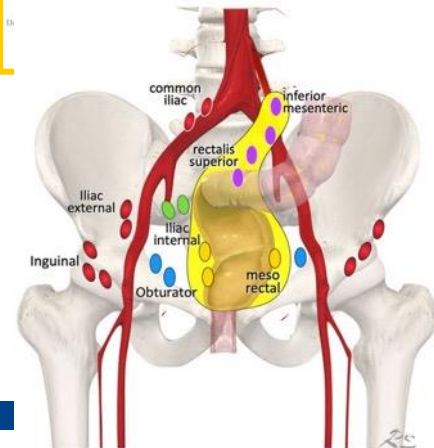


NSABP 04: radical mastectomy vs mastectomy+RT (vs mastectomy)



Lateral nodes - Japanese experience

- Low rectal cancer: 10-20%
- **Low N+ rectal cancer: 15-25%**
- **Low N2 rectal cancer: 33%**
- **Root middle rectal artery, internal iliac > obturator**
- **Seldom in mesorectal N0**
- 5 yr survival: 30-40%

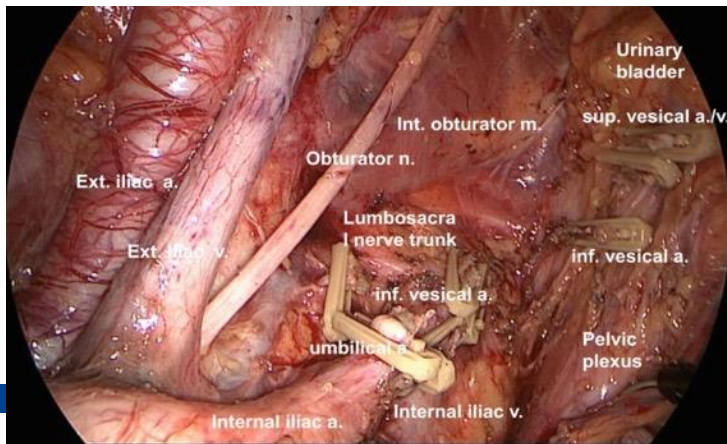
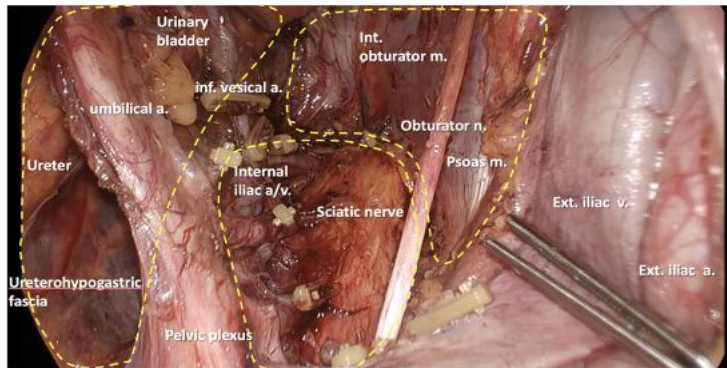


Moriya, Mori, Hojo, Hida, Ueno...

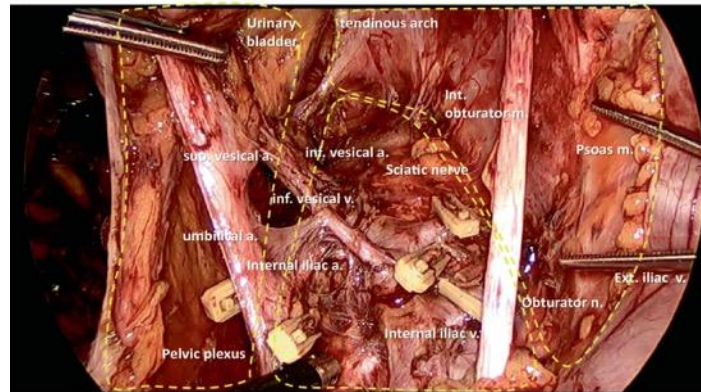
Steup et al. Eur J Cancer 2002; 38: 911-918.

Takahashi et al. Sem Surg Oncol 2000; 19: 386-395

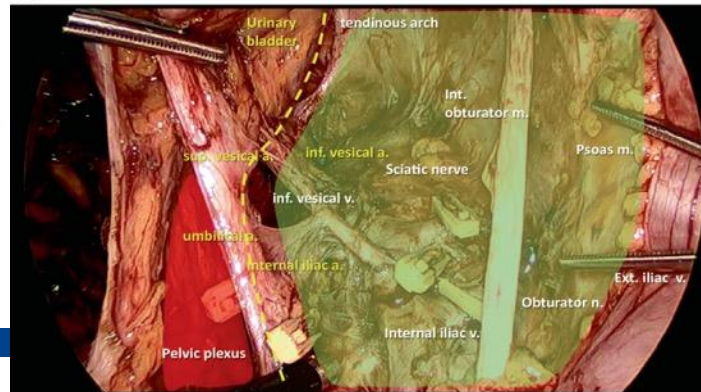
Minimal invasive nerve preserving LLND



(i)



(ii)

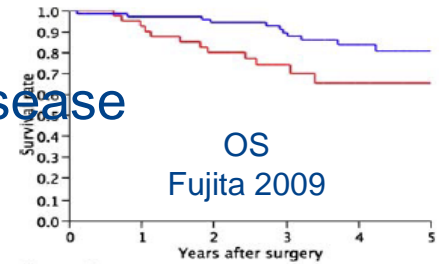


- **Eastern view**

- Involved lateral nodes are common in certain groups
- Can be controlled with surgery, prevention lateral recurrences
- When done right, it adds little morbidity
- Prognosis reasonable \approx resectable metastatic disease

- **Western view**

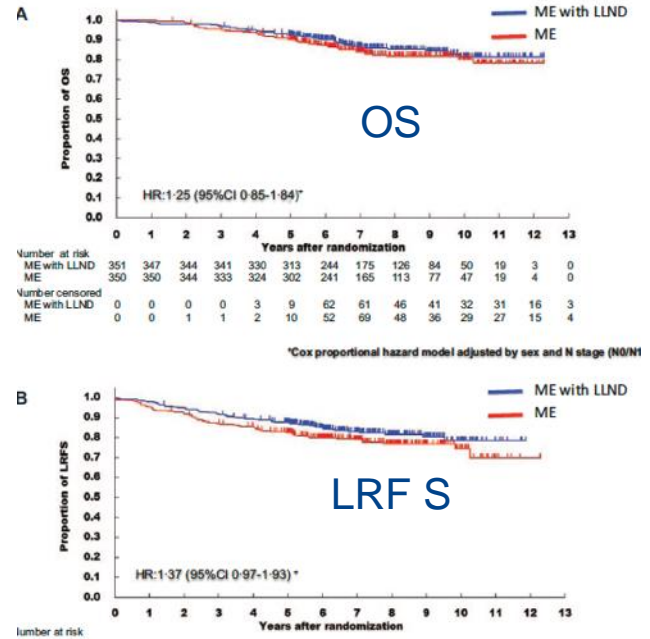
- Involved lateral nodes are uncommon
- Can be controlled with radiotherapy
- Surgery adds considerable morbidity
- Sign of metastatic disease – very bad prognosis



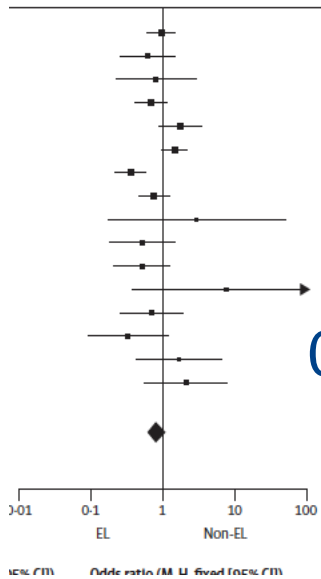
TME vs TME + LLND

JCOG0212 randomized trial

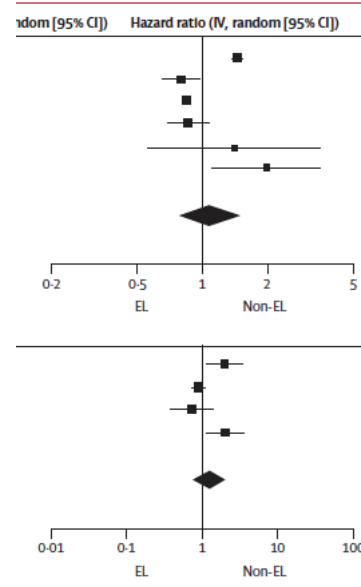
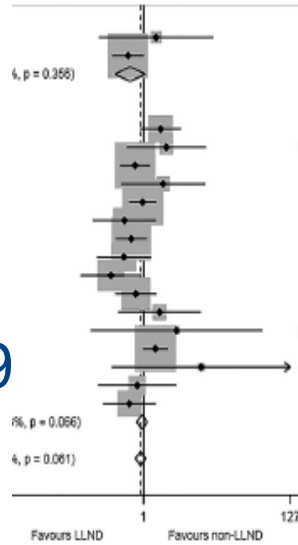
- Stage II/III distal rectal cancer
 - 701 patients
 - No LLN $\geq 10\text{mm}$
- Local recurrence 44 26
- Lateral recurrence 23
- No survival difference



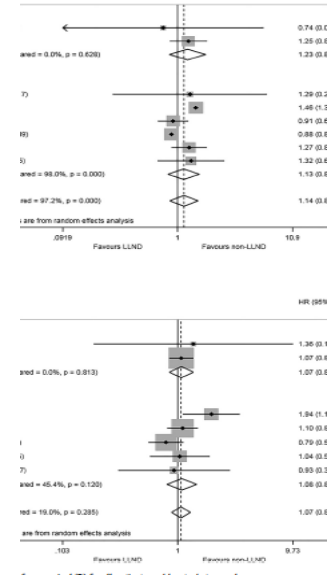
Evidence: meta-analyses comparative studies



LR
0.8-0.9



OS

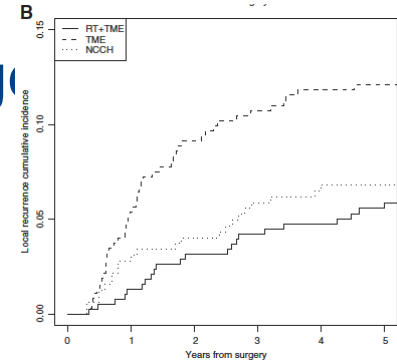


DFS

Difference: duration, blood loss, urinary and sexual

Comparative data from before MRI-era

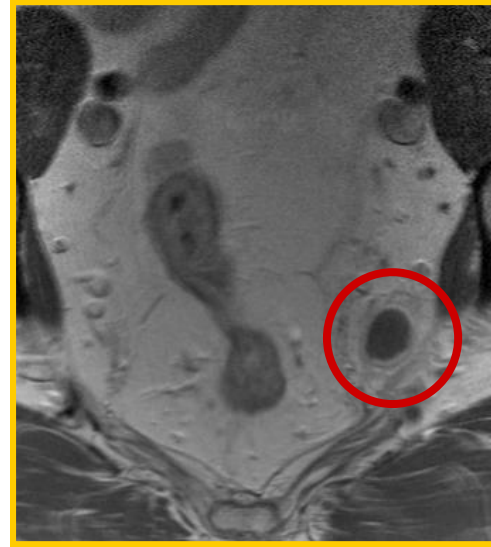
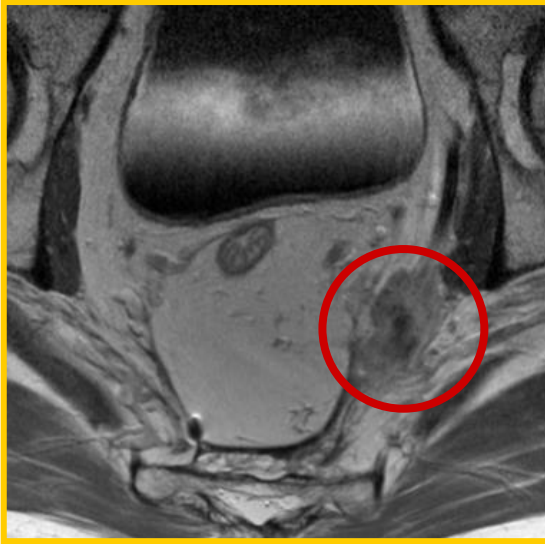
- Dutch TME trial: 376 TME and 379 RT and TME
- Cohort NCCH Tokyo: 324 TME +/- LLND (59%, uni/bi lateral)
- Stage II/III, lower border ≤ 7 cm anal verge
- Loc recurrence: 12.1% 5.8% 6.9%
 - M+ synch: 30% 88% 62%
 - M+ all: 77% 88% 95%
- Lat recurrence: 2.7% 0.8% 2.2%



Conclusion

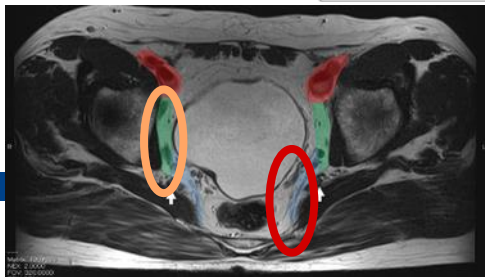
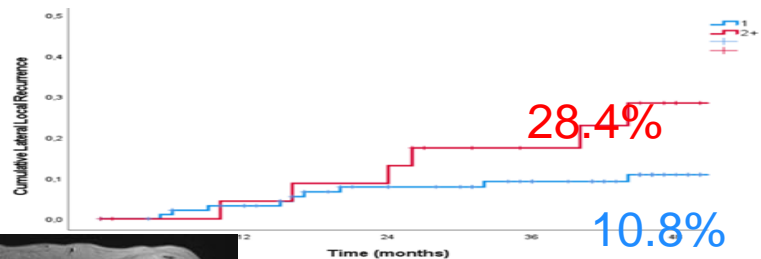
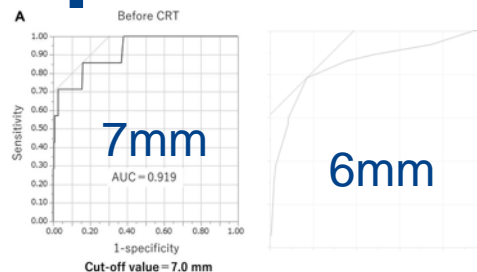
- No role for 'routine' LLN dissection in large groups
 - Not even in low N+ rectal cancer
 - Usually indication for neoadjuvant therapy

MRI – lateral nodes



MRI and lymph nodes

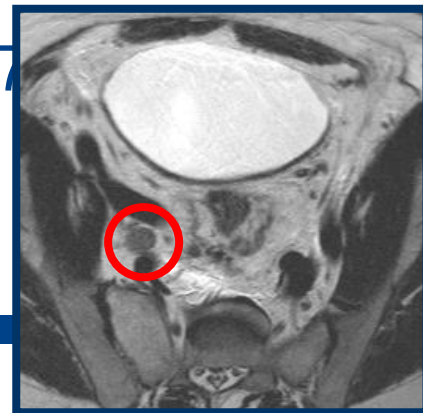
- Size short axis
 - 5-7mm + MF: 8.2% LLR
 - 5-7mm – MF: 2.1% LLR
- Malignant features
 - 5-7mm + MF: 8.2% LLR
 - 5-7mm – MF: 2.1% LLR
- Number
 - 1 vs more
- Location
 - obt < int iliac



Are radiologists seeing lateral nodes?

2016 Dutch cohort study

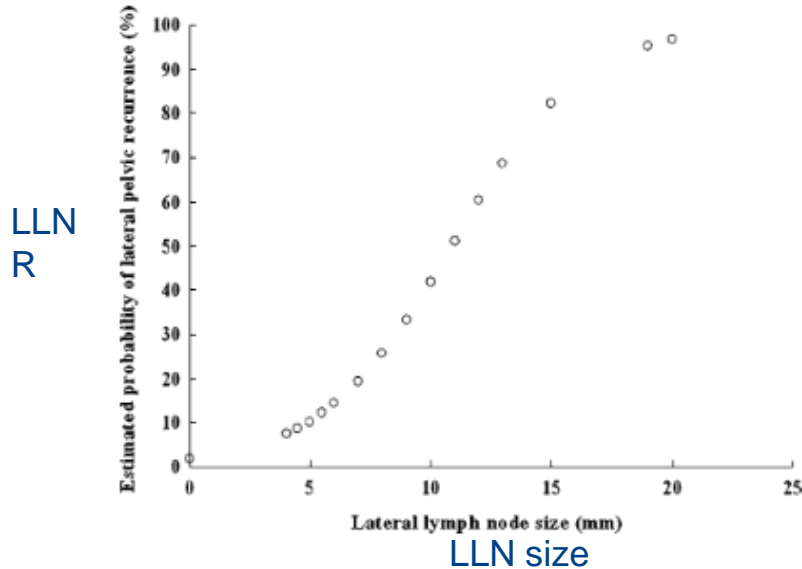
- 1096 pts \geq cT3, \leq 8cm ARJ, 80% neoadj therapy
- Original MRI report: nothing mentioned 51%
 - Presence mentioned 21%; 25% report on suspiciousness
- Expert review: overall 35% visible LLN, 13% \geq 7mm
 - 41% of enlarged LLN were not mentioned
- Overall 10% LR and 2.3% LLR



Size of lateral node – lateral recurrence

– 7.0% local recurrence

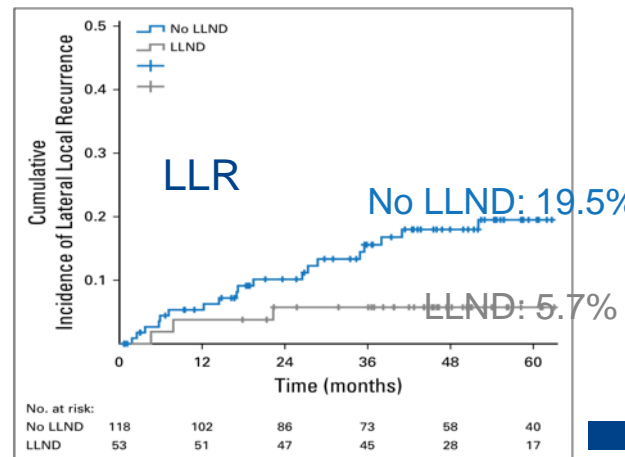
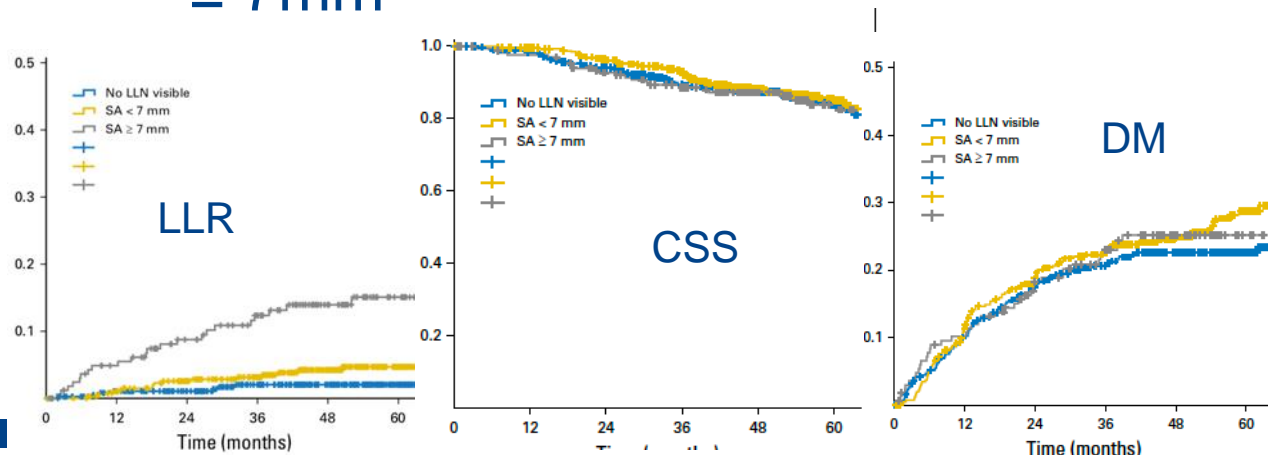
– 6.5% lateral recurrence



- 7mm size baseline: \approx 20% recurr
- 58% simultaneous distant mets

Size LLN – LLND: impact on lateral recurrence

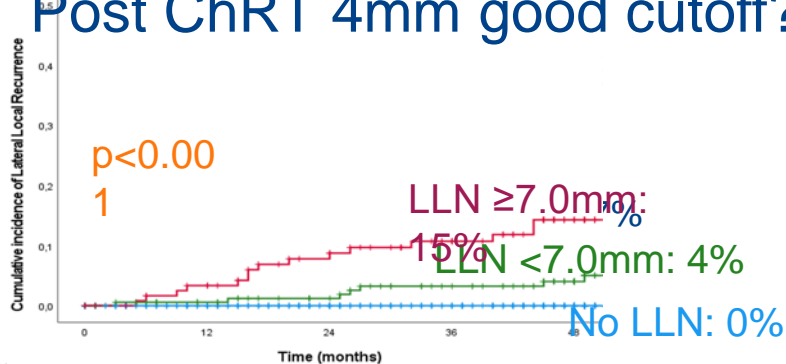
- 1216 pts Lateral Node study consortium
- 80% neoadj RT
- $\geq 7\text{mm}$



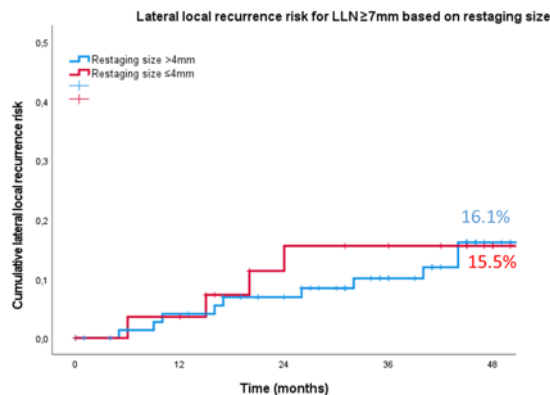
Lateral nodes – recurrence

2016 Dutch cohort study

- 1096 pts \geq cT3, \leq 8cm ARJ, 80% neoadj therapy
- Partial LLND/node picking: 4-jr LLR 19%
- Post ChRT 4mm good cutoff??



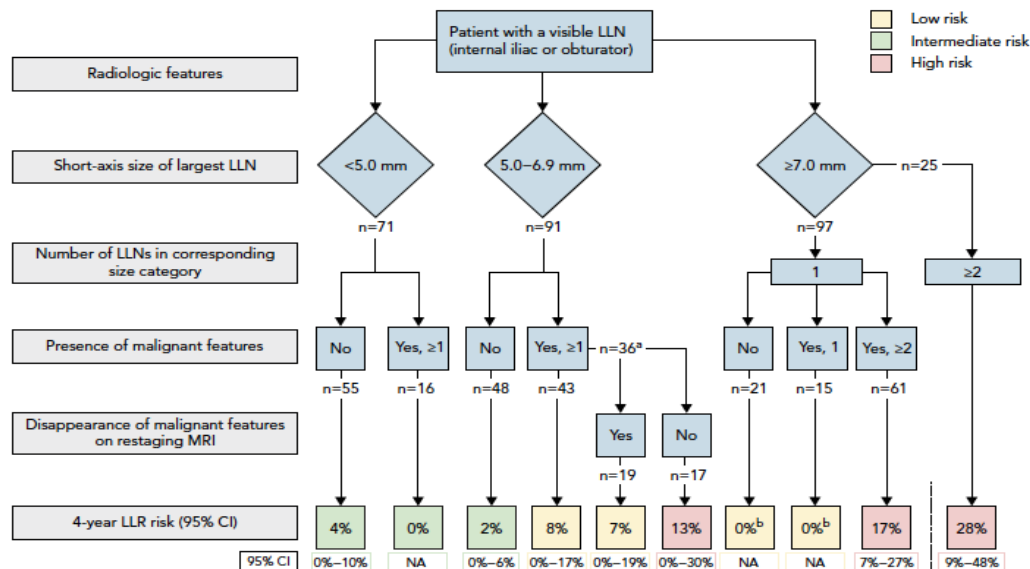
No. at risk	0	12	24	36	48
LLN absent	590	531	483	437	354
LLN < 7.0 mm present	176	160	149	132	110
LLN ≥ 7.0 mm present	125	113	99	84	54



How big is the problem?

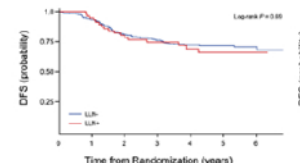
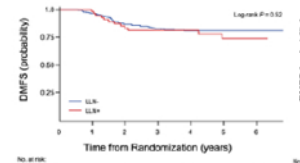
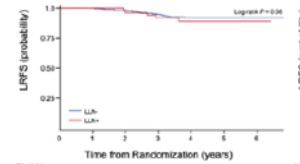
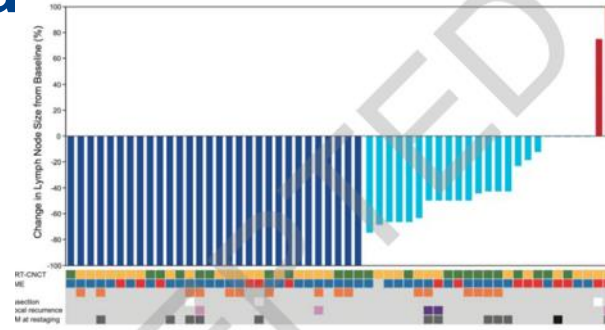
Dutch cohort study

- 1096 pts \geq cT3, \leq 8cm /
- 80% neoadj RT
- 284 pts visible LLN
 - 103 high risk
 - 19 LLR \rightarrow NNT 7
 - 184 low/intermed risk
 - 4 LRR \rightarrow NNT 46
 - 16/23 eventually M+



Lateral nodes still a problem after TNT?

- 57/324 (18%) visible LLN retrospective analysis ODDA-data
- 30/57 (53%) disappeared
- LLN recurrence rare
 - LLN+ 3.5% LLN- 0.4%
 - all distant metastases
- Non LLN recurrences: 50-60% metastases
- 1 pt benefit from LLND?



Conclusion

- Involved lateral nodes
 - are a problem in a small group of patients
 - can for large part be controlled with LLND
 - can be reasonably controlled with RT, with TNT even better
 - risk groups narrowly defined by MRI
- Lateral nodal recurrence
 - is worth preventing, may become futile in most patients after TNT
- Lateral lymph node dissection
 - should be minimally invasive, nerve sparing, performed by expert

Thank you

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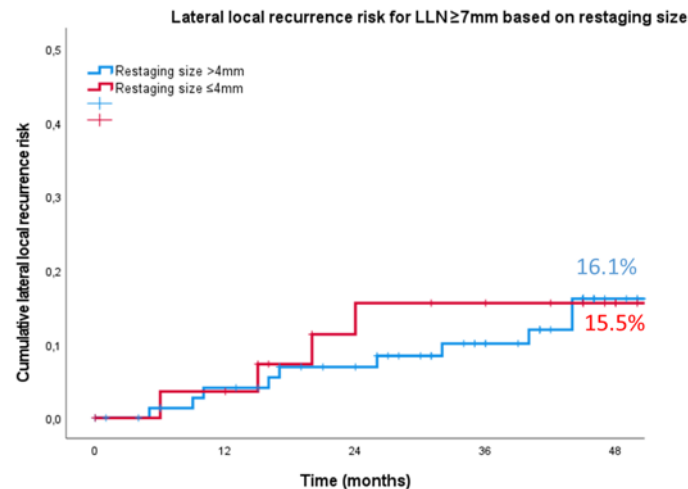
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LaNoRec studie

- Klinisch compleet response
- Watch & wait
- Registratie



Inclusie
Vragenlijst

Evt. restaging
MRI

Vragenlijst Vragenlijst

Oncologische uitkomst
Vragenlijst

