

# The role of surgery in the management of neuroendocrine liver metastases(NELM)

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# **Management of NELM is challenging:**

- Lack of prospective data
- No firm consensus

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# Unique features of NELM

- Protracted course(cancer in slow motion)
- Clinical syndrome
- Tumor markers
  - Diagnosis
  - Symptoms
  - Monitor
- Growth inhibition/symptomatic relief by specific blocking agents

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# The role of Surgery in the treatment of NELM signifies a paradigm shift



CURE(R0)

- Survival

PALLIATION

(Cytoreduction)

- Symptoms
- Survival

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# Keep in mind:

- Slow growing nature of NELM makes them less responsive to conventional palliative treatment options
- Clinical syndrome directly related to tumor mass
- NET tend to metastasize to liver only (target organ)

# Indications for surgery in NELM

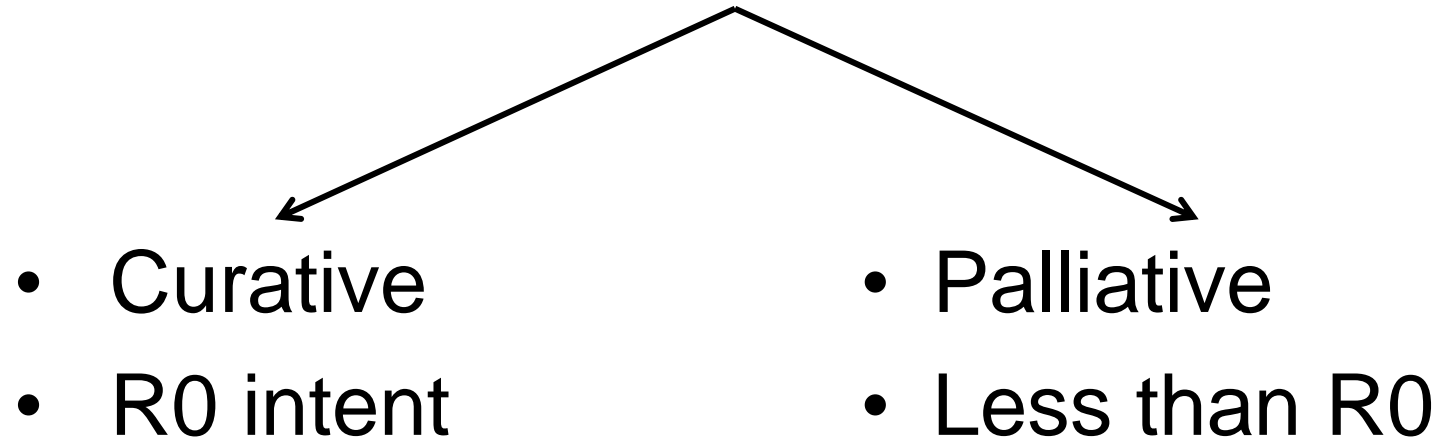
- Primary tumor can be controlled
- Limited mets outside the liver
- Reasonable performance status

\*MAYO

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# Surgery for NELM



# Surgery with curative intent(R0)

- Unresected NELM 5yr survival 20-40%
- Resected NELM 5yr survival 46-86%
- Local recurrence at 5yr 40-70%
- 96 % recurrence in liver

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# Surgery with palliative intent

- Goals include:
  - Palliation of symptoms(Q.O.I.)
  - Prolong survival
- **Caveat:**  
Surgical outcomes must justify operative intervention
- Definition of palliative surgery- remove at least 90% of gross disease!
- 96% symptomatic relief post surgery
- 56% recurrence rate of symptoms at 5 yr
- 83% 3yr survival rate (positive spin-off)

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# THE ROLE OF LTX

- Theoretical advantages:
  - Remove all tumor burden
  - Remove most common site of recurrence
- Factors that may preclude OLT as an option:
  - Early disease recurrence
  - Significant M M
  - Shortage of donor organs
  - Financial implications
  - Absence of extensive experience
- Post transplant:
  - 5 yr survival 70%
  - 5 yr recurrence free survival 50 %
  - Mazzaferro criteria

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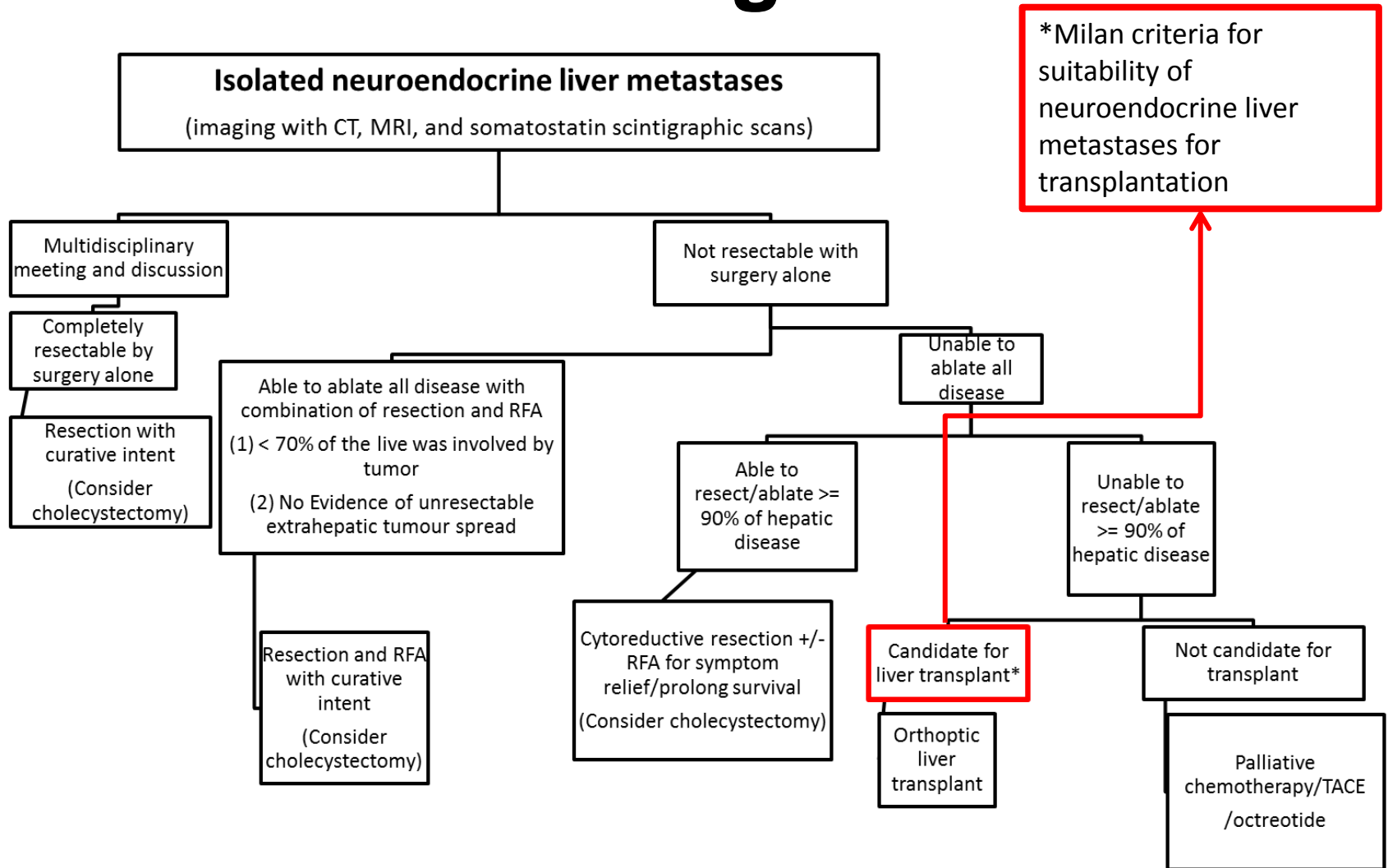
# Conclusions

- Aggressive surgical approach can lead to:
- Long-term survival
- Significant long-term palliation
- Good Q.O.L.
- Cytoreductive surgery should be pursued whenever possible even if complete resection may not be possible!

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# Flow diagram



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