



Neoadjuvant Therapy in Gastric Cancer.

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The Problem?

- Gastric cancer continues to be one of the *captains of the men of death*. (Baily and Love, 2000)
- Despite advances in diagnostic and therapeutic techniques gastric cancer presents late with poor prognosis: 5Ys around 20%.

The Problem?

- **Surgery** is the *only* curative therapy.
- In Japan, the standard of care is the ***D2 gastrectomy*** : 5Ys: 68%.
- In the West: (D1) due to the disappointing results of major randomized trials.

Western Experience (Major RCT)

Study	No. D2	Morbidity		Mortality		5 / 10 -YS	
		D2	D1	D2	D1	D2	D1
Dutch, 1999 2004	331 (711)	43%	25%	10%	4%	47% 35%	45% 30%
MRC,1999	200 (400)	46%	28%	13%	6%	33%	35%

(Bonenkamp et al, 1999/ 2004) and (Cushieri et al, 1999)

g29

in europe 2 major RCT were performed , the british medical research council and the duch gastric cancer group.

gold, 3/28/2008

Potential Reasons for the superior results in Japan?

- **Earlier stages** : EGC > 50% (screening)
- **More aggressive approach**: D2.
- **Better patient**:
 - **BMI** (Dhar et al, 2000)
 - **Younger age**. (10y)
- **Surgeon** : Experience, learning curve.

Solution ?

- Screening: Cost efficacy ?
- Extensive surgery ? Negative RCT
- Combined therapy: Multimodality.
 - **Adjuvant therapy.** (SWOG)
 - **Neoadjuvant Therapy:** (major research field). (MAGIC)
 - NA therapy + D1+ adj Ch Rt: European multicentre trial.
- Targeted Therapies.

Neoadjuvant Therapy?

- Treatment given before the primary definitive treatment.
- Chemotherapy, Radiotherapy, Hormone Therapy.

Established Role in:

- Breast cancer.
- Rectal cancer.
- Soft tissue sarcoma.
- Gastric cancer.

SWOG Intergroup 0116 Trial (2001)

	Surgery + Adj ChRT	Surgery Alone (54%: D0)
Median survival	36 months	12 months
DFS	30 months	19 months

MAGIC Trial (2005)

	NA (3 x ECF) + Surgery+(3xECF)	Surgery Alone
5 year survival	36%	23%
Median survival	24 months	20 months
Resectabilit y	80%	70%

Rationale of Neoadjuvant therapy?

- Avoids delay in treatment and progression.
- Avoids surgical morbidity for patients with progressive disease (self selection).
- Better physical and nutritional status :
(patients are more likely to tolerate aggressive therapy).
- Enhanced resection of the primary tumor.
- Reduced risk of recurrence: Local control.
- Improved outcome.

Challenges for the surgeon?

- Patient selection?
- Assessment of the response to treatment?
- Maintaining nutritional status during treatment. (feeding jejuenostomy)
- Adequate radical surgery (D1 or D2)
- Postoperative morbidity ?

Patient selection for NA therapy

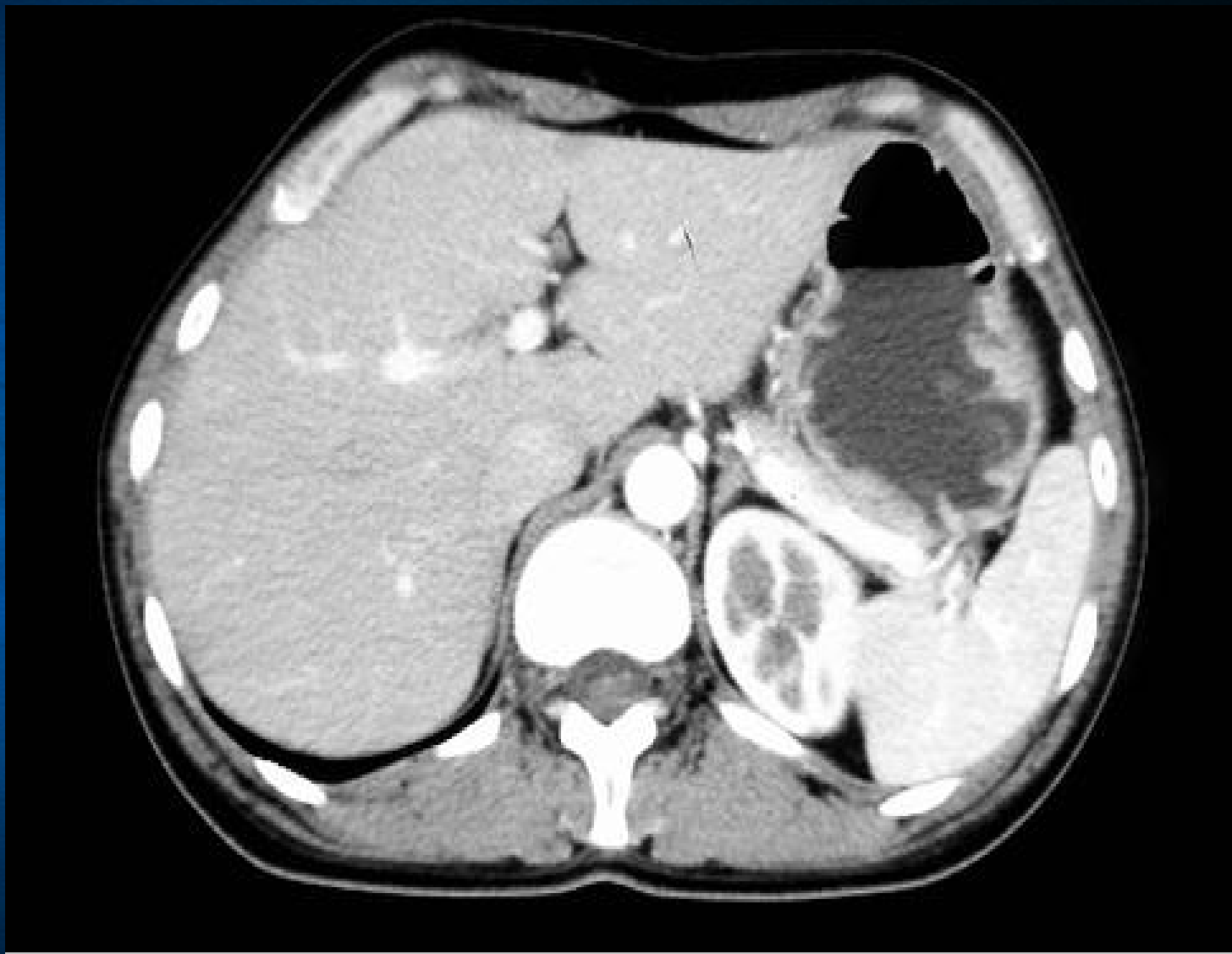
Gastric Cancer

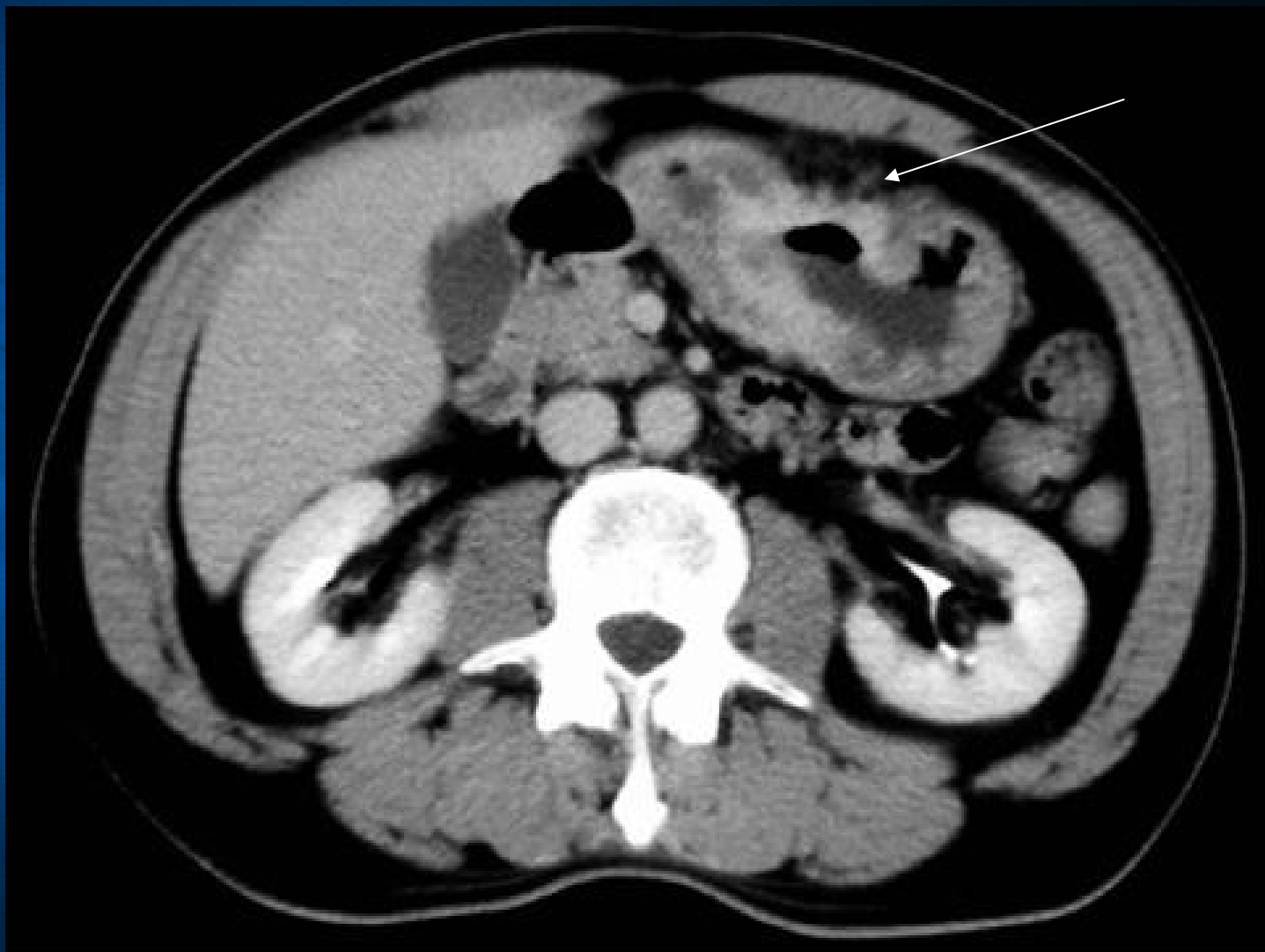
- **Tools:**

- CT scan: T4
- EUS:T2-T3
- **Laparotomy / Laparoscopy : Best assessment .**

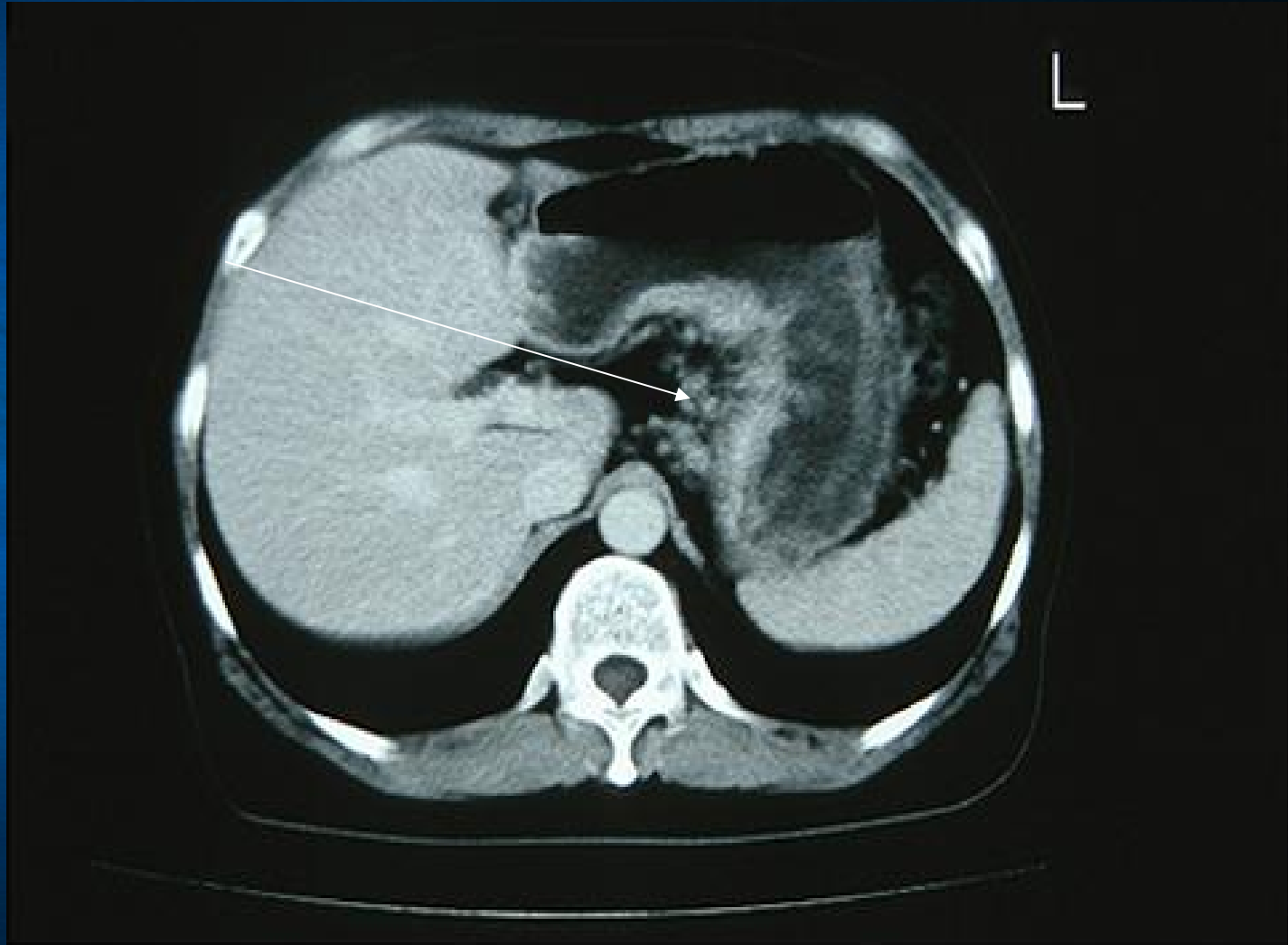
- **Criteria:**

- T3-T4/ N+ (NCCN Guidelines)
- Irresectable disease: Inv of diaphragm, celiac trunk liver, pancreas.
- Non metastatic.

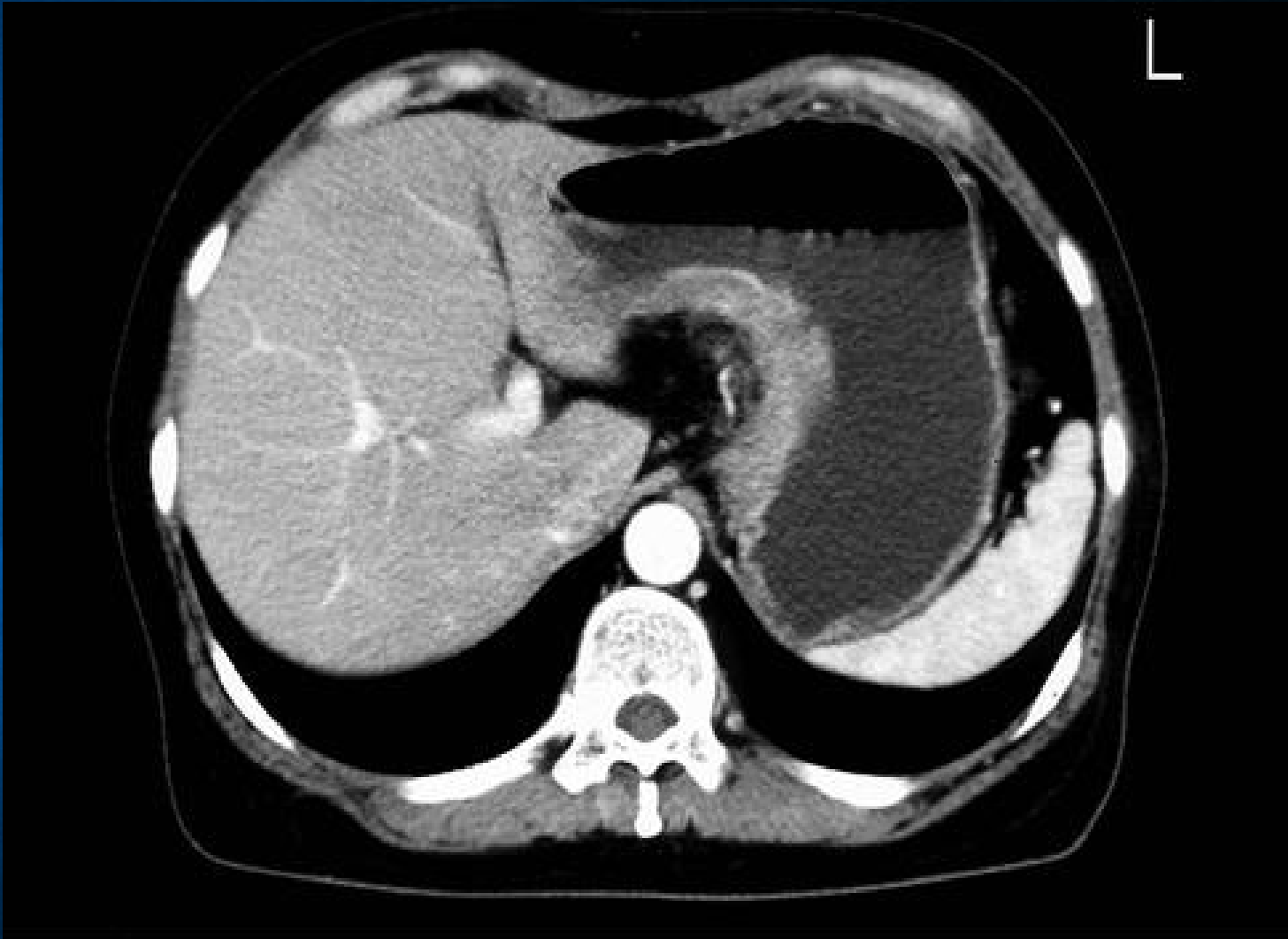




Ca body with LN



Ca body: Lesser curvature



Advanced Ca Cardia



EUS



Neoadjuvant therapy for pancreatic cancer.

- Delayed presentation except periamp. ca
- Resectability rate: 15%
- Poor prognosis in advanced disease.
- High incidence of positive retroperitoneal resection margin. (30%)

Patient selection for NA therapy

Pancreatic Cancer

- **Tools:**

- **US:** initial diagnostic test (sensitivity 80%).
- **Thin section CT:** *Inv of choice to assess resectability.* (sensitivity 95%)
- **EUS:** assessment and **FNAC**
- **Intraoperative:** Laparoscopy/ laparotomy ??.

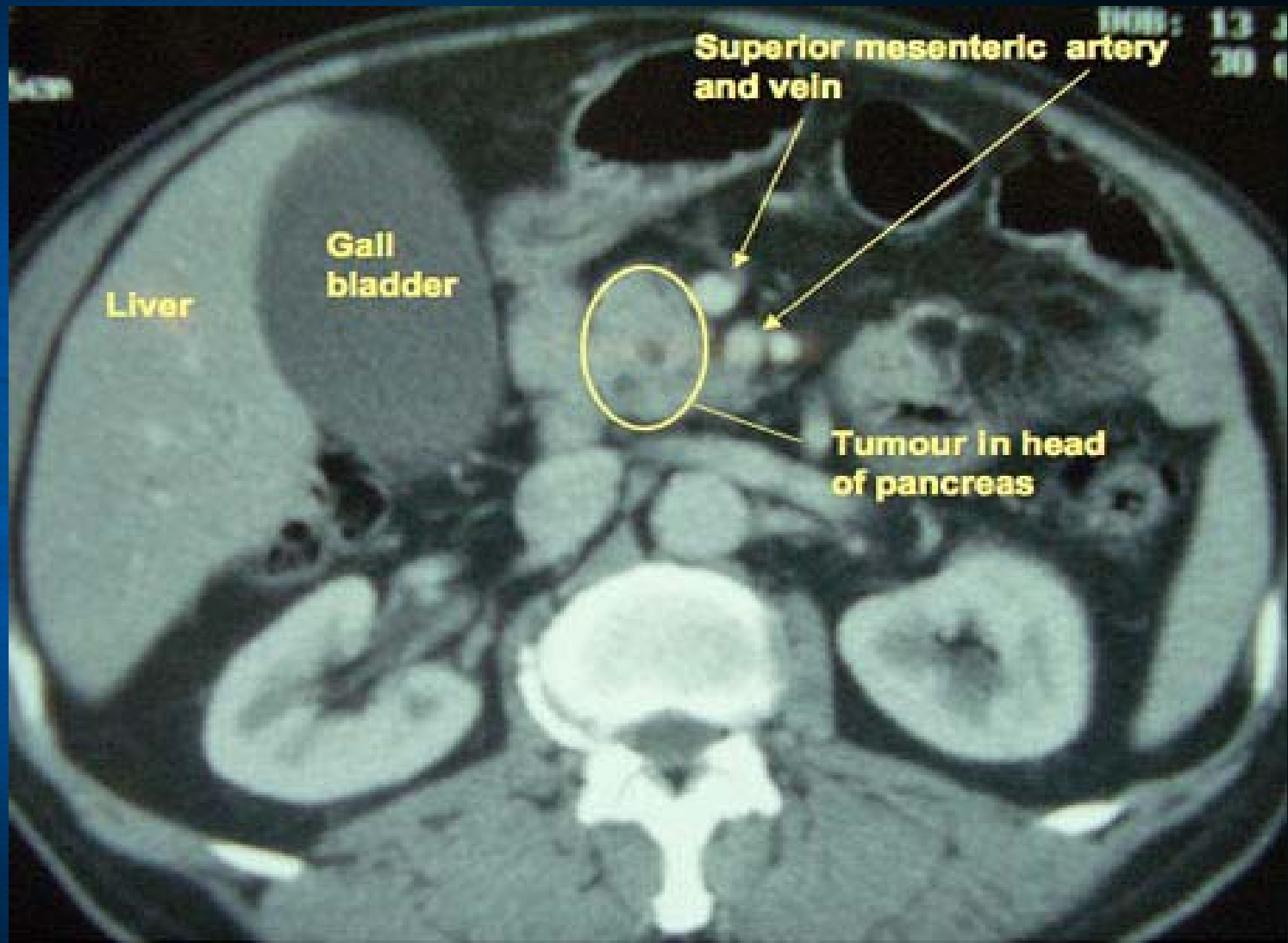
- **Criteria:**

- Extension to SMA and celiac axis.
- Patent SMV portal vein confluence.
- No extra pancreatic disease

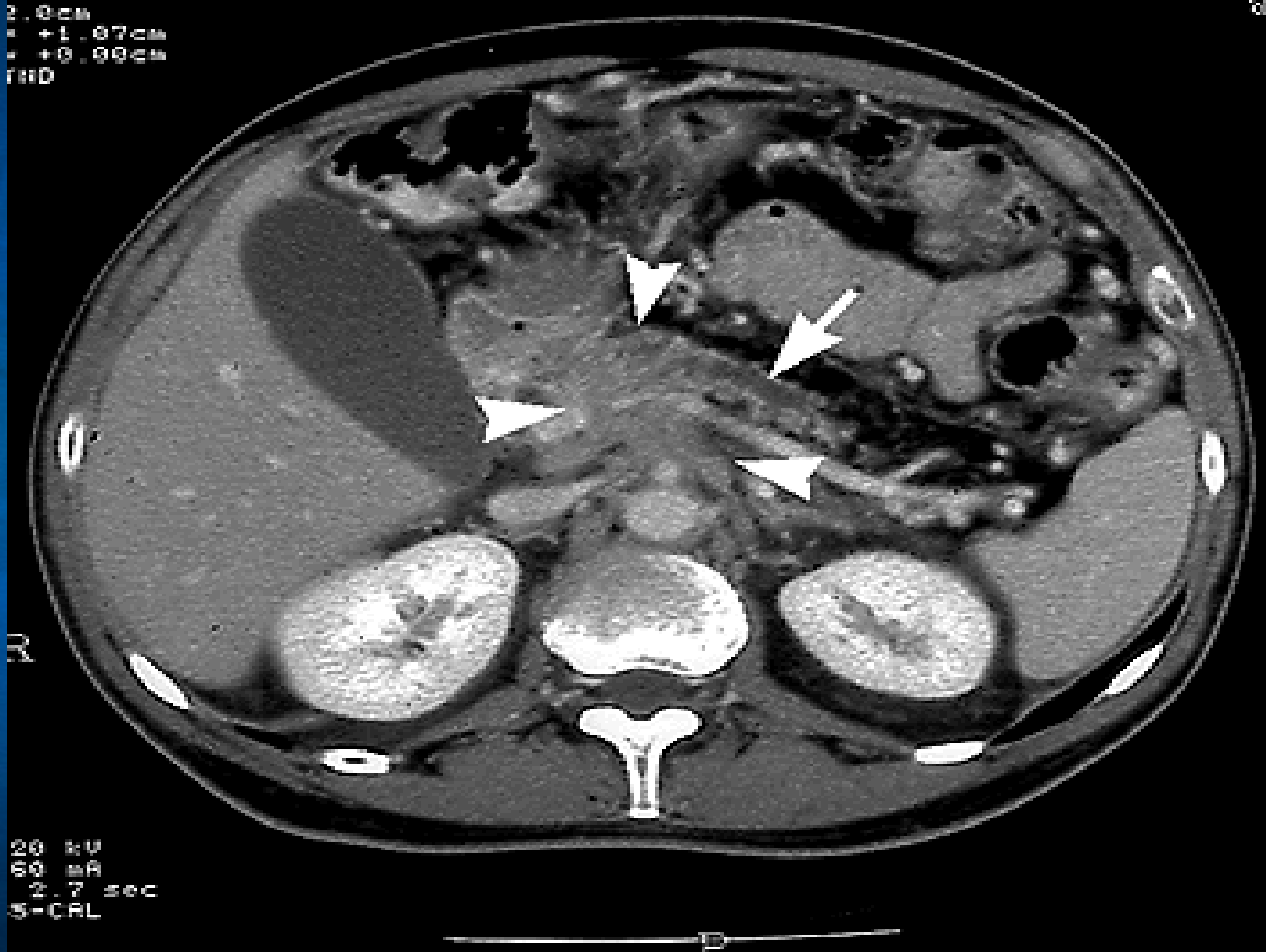
- ***Resectability: absence of extra pancreatic disease.***

Clinical-Radiological staging of Pancreatic cancer (MDACC)

stage	Clinical/ objective Radiological criteria <i>(80% resectability) and 17% positive retroperitoneal margin</i>
I	Resectable No encasement of SMA, Celiac axis, Patent SMPV confluence No extra pancreatic disease.
II	Locally Advanced Arterial encasement or venous occlusion. No extra pancreatic disease.
III	Metastatic

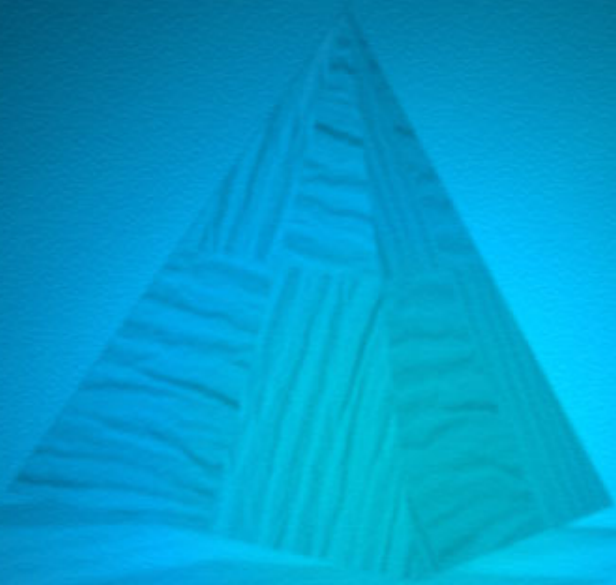


3.0cm
+1.07cm
+0.99cm
T1D



200 kV
600 mA
2.7 sec
5-CAL





Thank you