# PANEL DISCUSSION ON R0 RESECTION

## MANAGEMENT OF MARGIN POSITIVE STATUS

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# Fact should know FIRST

# FACT 1

# FIGHTING AGAINST CANCER

- What is the winning strategy

# Radicality of resection

## ‘To the best of one’s ability’

# FACT 2

# WHY LOCAL RECURRENCE ?

TUMOR BIOLOGY ?

INADEQUATE TREATMENT ?

# FACT 3

# IS OPERATING SURGEON REALLY A PROGNOSTIC FACTOR?

**THERE IS A DIFFERENCE….**

**ONCOLOGICAL OUTCOME**

# Surgical skill and specialisation as a prognostic factor

# SURGEON IS A PROGNOSTIC FACTOR...

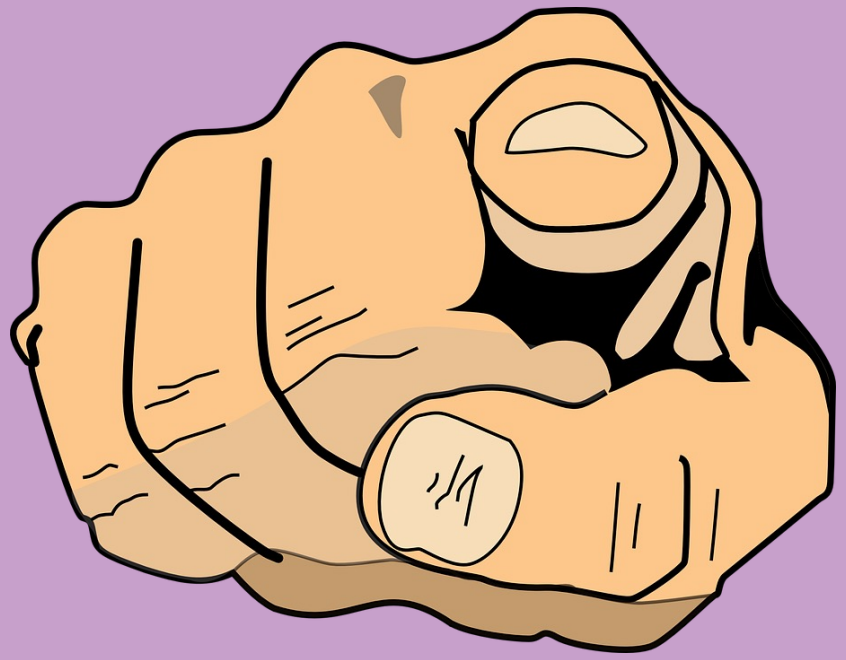
**Review of 13 studies by Alan P. Meagher – specialist surgeon after satisfied experience achieved significantly better results than other surgeons in all outcome measures including choice of surgery adjuvant treatment (preop radiation), local recurrence rate and overall survival**

# FACT 3

- I am an onco surgeon
- What is my responsibility in CANCER SURGERY ?

# BEST OUTCOME

# YOUR RESPONSIBILITY AS A CANCER SURGEON



## R0 RESECTION

# FACT 4

# GIT CANCER

Complete pancreaticoduodenectomy  (margin negative) only has survival advantage

Only 30 - 50% of patients who undergo surgery with curative intent have their tumor successfully removed

Majority who undergo surgical exploration had no survival advantage but had morbidity,Median survival 6 months


# PANELIST

# CONCEPT IN ONCOLOGY

# ONCOLOGICAL NORMS

**Adequate Surgery + Adjuvant therapy is the Standard treatment**

**Adjuvant treatment is not an answer to incomplete surgery**

QUESTION:1

# WHAT IS R0 RESECTION

QUESTION:2

# WHAT IS R1, R2 RESECTION

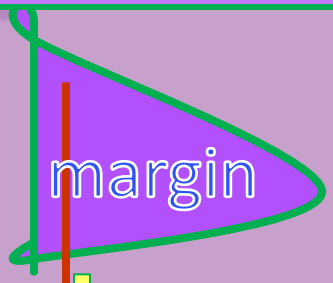
# PRINCIPLES

- Margins
- Node count
- Surgical planes
- Ligating artery at its origin

## DONT'S

- Tumor spill
- Crushing of lymph node

# What follows is…….




Lateral

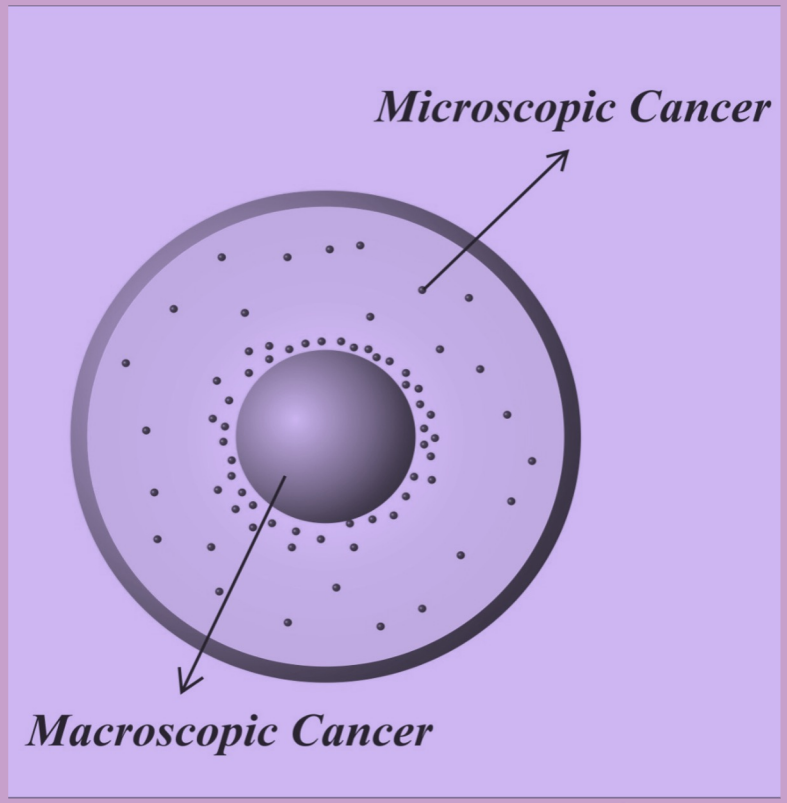
Proximal

DISTAL

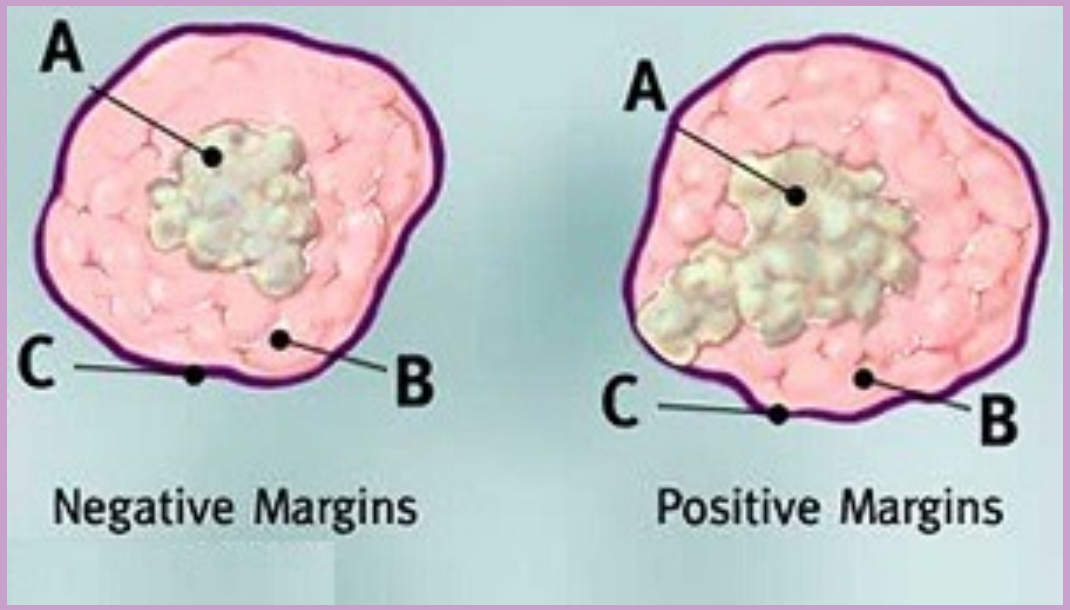
lymph node dissection

# CLEARANCE

# LOCAL BIOLOGY - MARGINS



# Negative Margins



QUESTION:3

# WHY EXTEND OF CLEARANCE VARIES IN VARIOUS CANCER?

QUESTION:4

# ROLE OF INTRA OPERATIVE FROZEN SECTION

QUESTION:5

# ANATOMICAL PLANE IN R0 RESECTION

# WHAT IS PLANE

- It is a avascular area
- Dissection of this plane resulted in Good oncological clearance
- There is no bleeding in this plane.

# TYPE OF MARGINS

1. CRM – LATERAL MARGIN

2. LINEAR MARGIN

QUESTION:6

# LINEAR VS LATERAL MARGIN

# ADEQUATE LYMPHADENECTOMY HOW MANY NODES?

Number of resected node

Number of positive node

# QUESTION:6

**If Number of resected node is less than standard number -How to proceed ?**

# QUESTION:6

IN POST-OPERATIVE HPE REPORT

**HOW CAN ACCESS COMPLETENESS OF SURGERY**

# STOMACH

QUESTION:11

# HOW MUCH CLEARANCE TO BE GIVEN IN GASTRIC CANCER

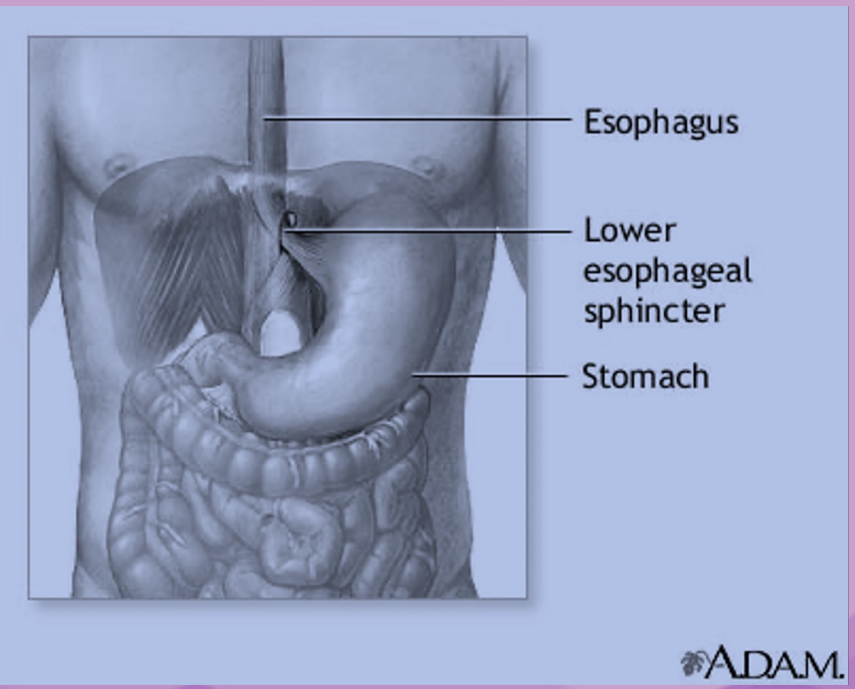
# ADEQUATE SURGERY

- **CLEARENCE** 5 cm
- **HOW MANY NODES?** 15 nodes

# ANATOMICAL BARRIER

In gastrectomy 5 cm clearence should be given

1 cm clearence is enough if anatomical barriers  are met

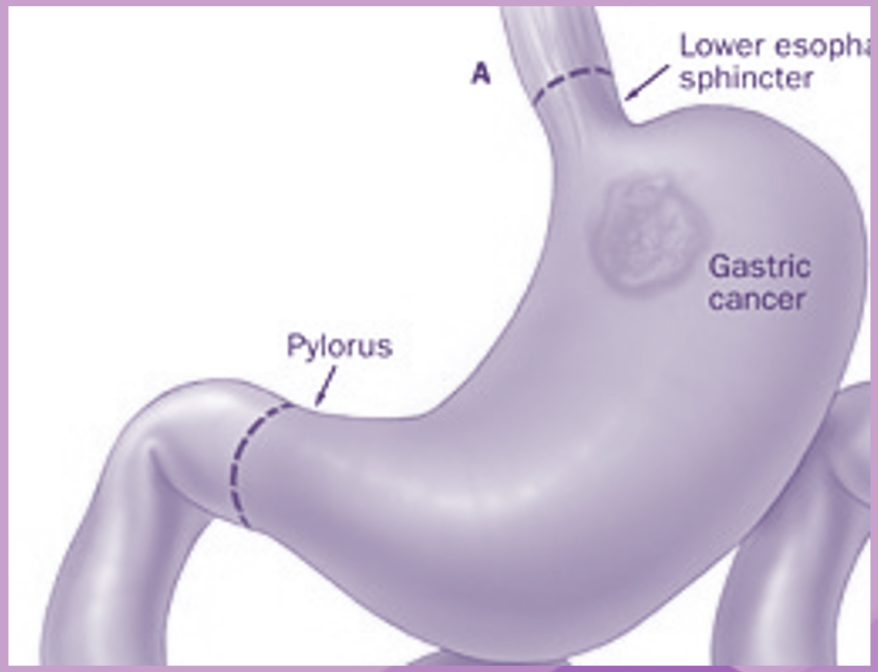



1.Esophago-gastric jn

2.Gastroduodenal jn

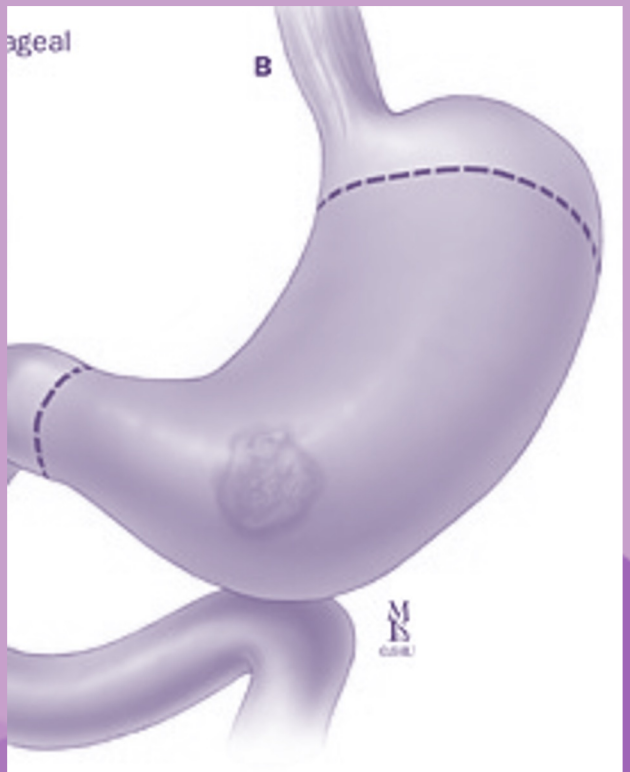
# PROXIMAL GASTRIC CANCER

**Total Gastrectomy**



# DISTAL GASTRIC CANCER

Distal gastrectomy



QUESTION:12

# ADJACENT ORGAN INVOLVEMENT HOW TO PROCEED?

# ADJACENT ORGAN INVOLVEMENT HOW TO PROCEED?

- DUODENUM :
- OSOPHAGUS :
- COLON :
- OMENTUM :
- PANCREAS :

# ADJACENT ORGAN INVOLVEMENT HOW TO PROCEED?

- DUODENUM : 2 cm clearance
- OSOPHAGUS : 10 cm clearance
- COLON : segmental resection
- OMENTUM :
  - direct invasion,T3 – resectable
  - Nodules – metastasis
- PANCREAS :
  - Distal : distal pancreatectomy
  - Proximal : unresectable

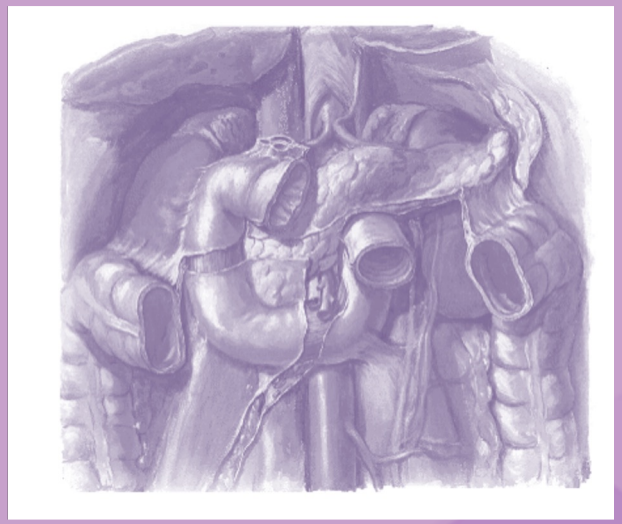
QUESTION:13

# WHAT IS LATERAL CLEARANCE IN GASTRIC CANCER - LYMPH NODE DISSECTION

# LOCAL RECURRENCE - ORDER

## ORDER OF RECURRENCE

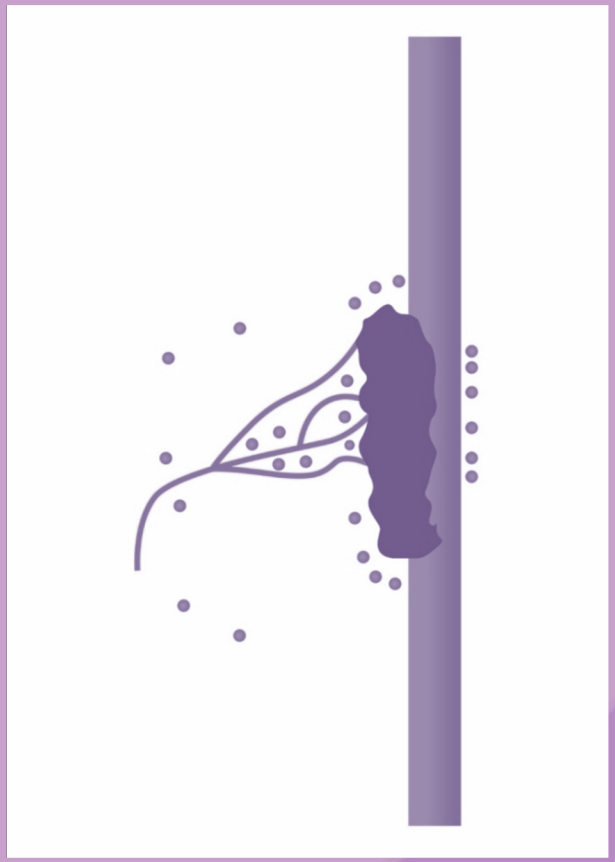
**Tumor bed**
**Lymph node**
**Anastomosis**



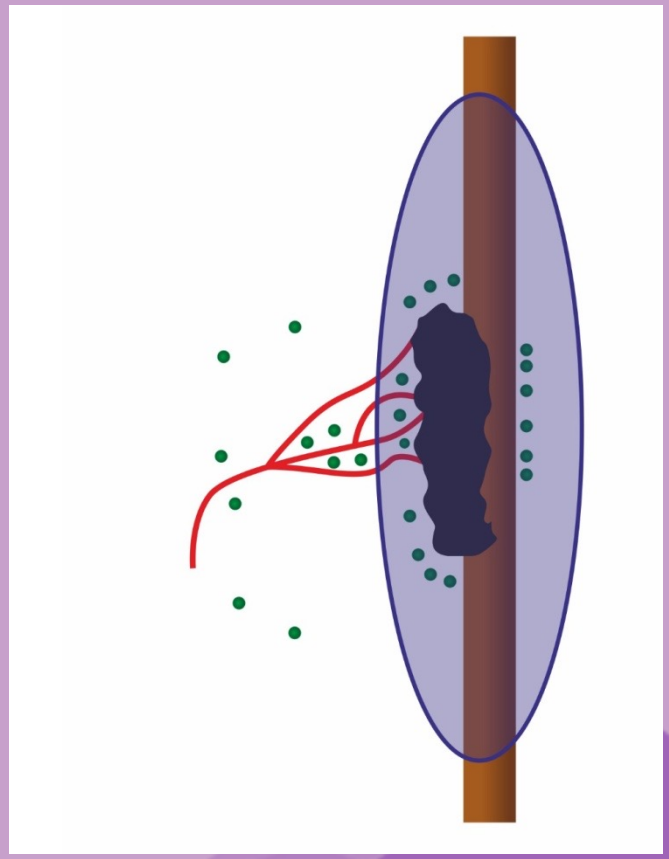
**N1- PERILUMINAL**

**N2-ALONG THE NAMED VESSELS**

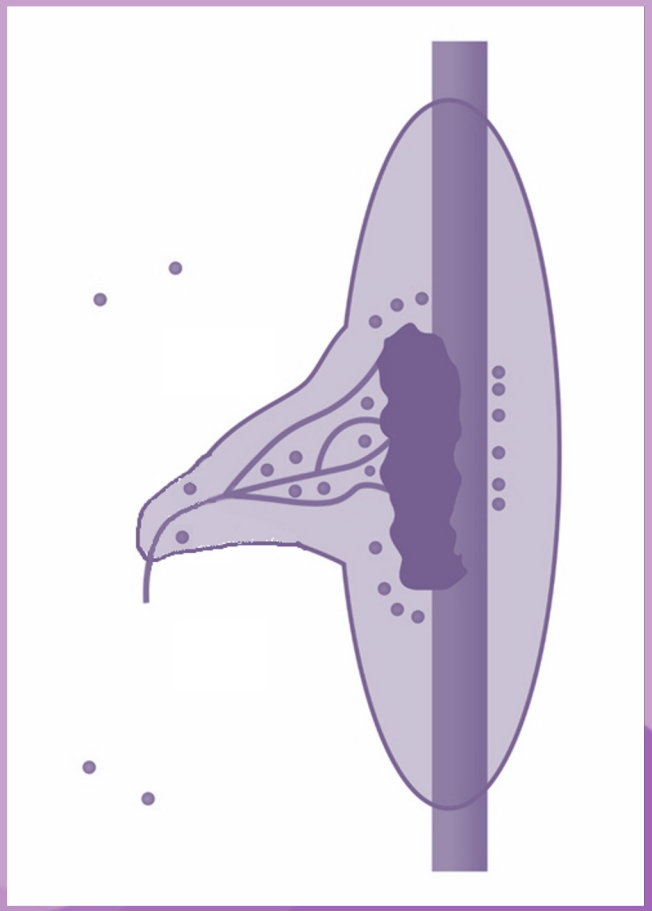
**N3- INTRAPERITONEAL NODES**



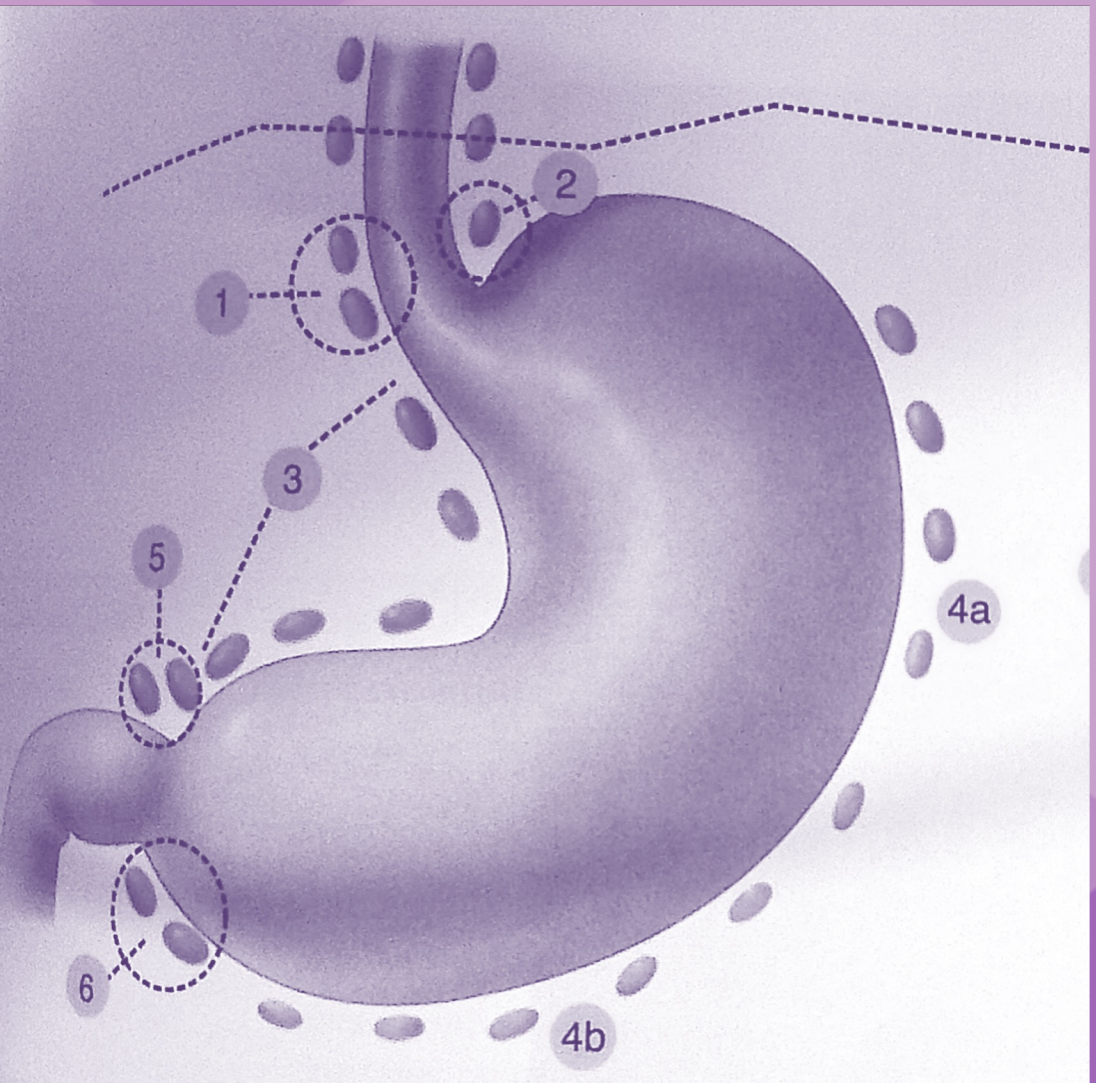
# IS IT an ADEQUATE SURGERY ?



# WHAT IS ADEQUATE SURGERY ?



# STOMACH



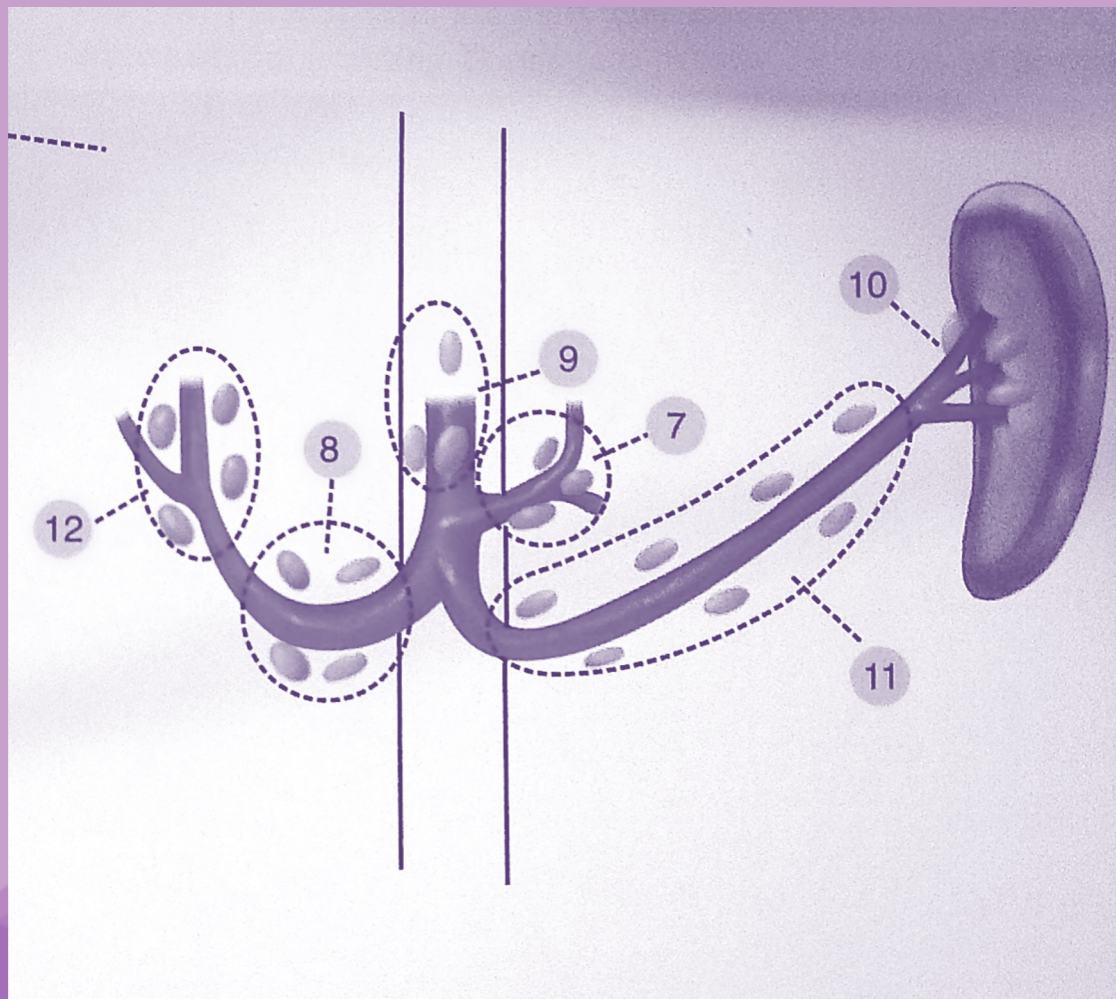

## N1 NODES Along the Curvatures

1. Rt. cardiac node
2. Lt. cardiac node
3. Lesser curvature node
4. Greater curvature node
5. Supra pyloric node
6. Infra pyloric node

# STOMACH

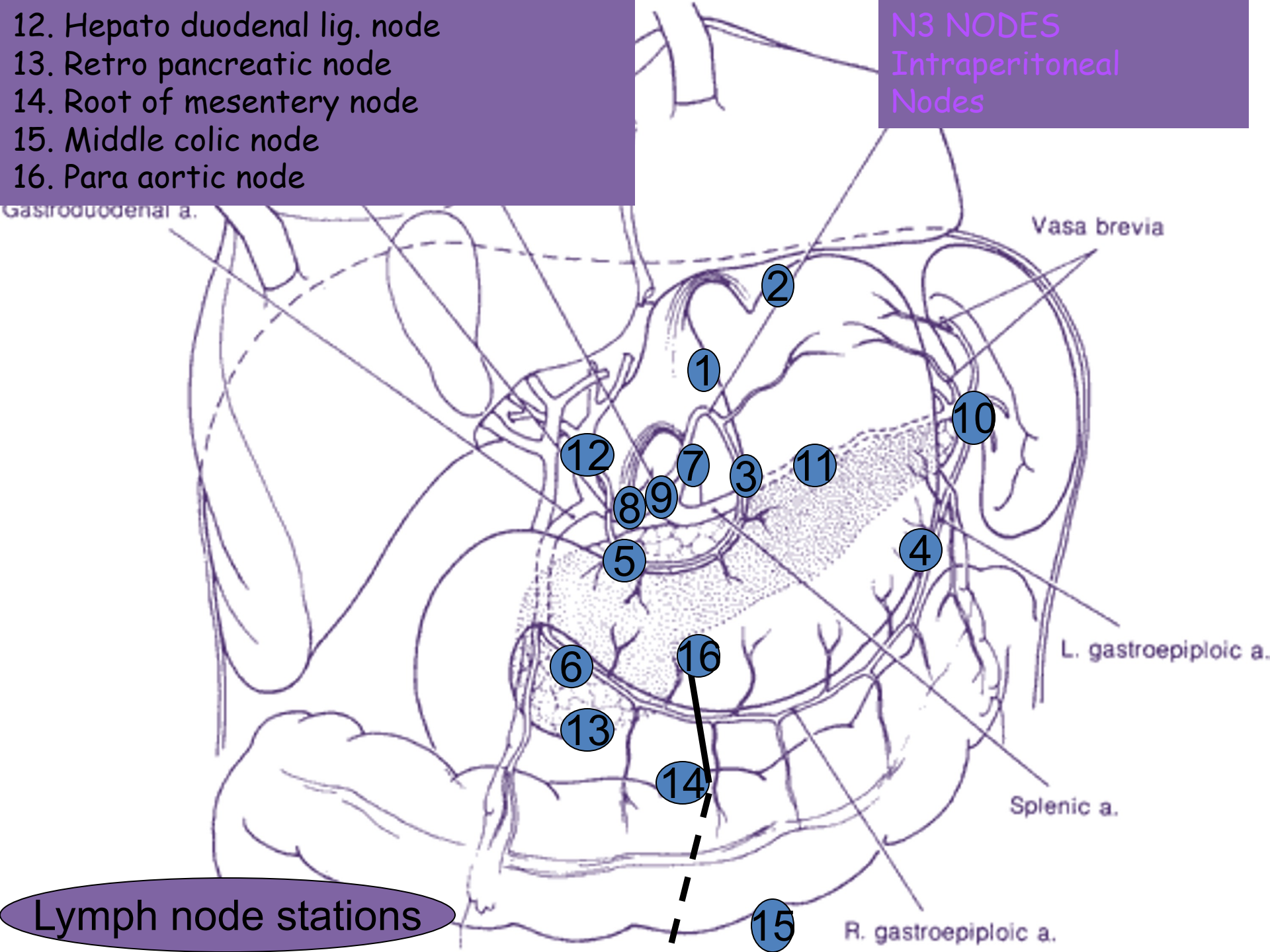
N2 NODES
Along the
Named vessels

7. Lt. Gastric node
8. Common hepatic node
9. Celiac node
10. Splenic hilar node
11. Splenic A. node

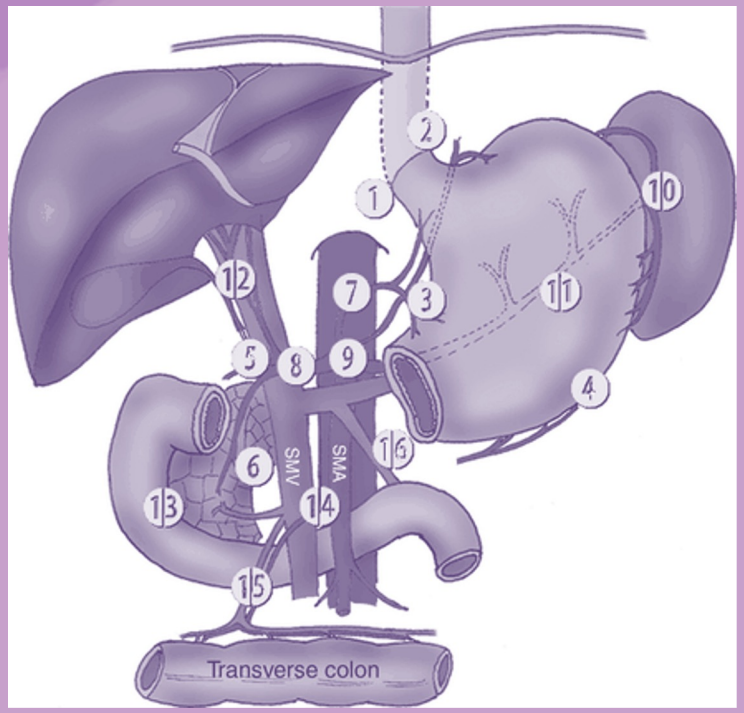


12. Hepato duodenal lig. node
13. Retro pancreatic node
14. Root of mesentery node
15. Middle colic node
16. Para aortic node

N3 NODES
Intraperitoneal
Nodes




Lymph node stations




**Dear surgeon,**
**Please do not ignore me**

# RECTUM

QUESTION:7

# HOW MUCH CLEARANCE (LINEAR)TO BE GIVEN IN COLARECTAL CANCER

# LINEAR MARGINS

1. PROXIMAL – 5 CM

2. DISTAL - ?

QUESTION:8

# HOW MUCH CLEARANCE TO BE GIVEN DISTALY IN RECTAL CANCER

# DISTAL MARGIN – EMERGING CONCEPT

- Previously held belief – 5 cm required.
- Studies have shown that the Distal extent of cancer **rarely exceeds 2 cm**.(only 2.5 %)
- Chances of local recurrence are not decreased by increasing Distal margins to > 2 cm.

# DISTAL MARGIN – NEW CONCEPT

- It should be negative margin

# LATERAL MARGINS

1. MESORECTAL EXCISION

2. LYMPHADENECTOMY

QUESTION:9

# WHAT IS LATERAL CLEARANCE IN RECTAL CANCER - LYMPH NODE DISSECTION

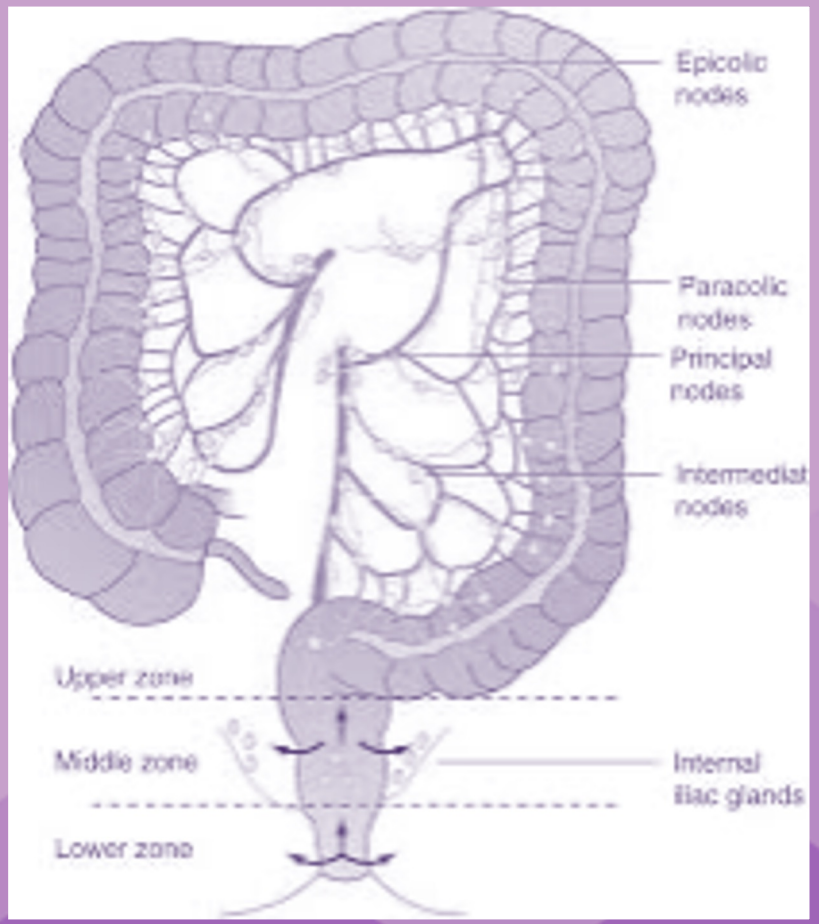
# COLON LYMPHATIC DRAINAGE

First tier -Epicolic nodes
adjacent to colon

Second tier – Para colic
along the marginal vessels

Third tier – intermediate nodes
along the named branch

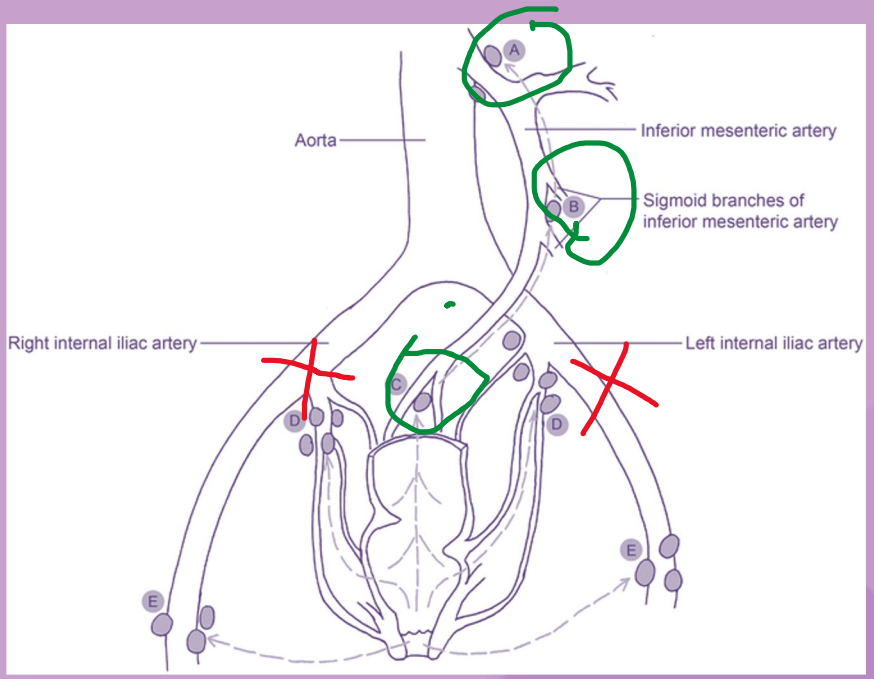
Fourth tier – Principle node
along the S.M.A, I.M.A



- The panel does not recommend extension of nodal dissection beyond the field of resection

(eg, into the distribution of iliac lymph nodes) unless

these nodes are clinicallysuspicious.



# LYMPH NODE DISSECTION

- **Mesorectal nodes**

- **Proximal Nodes - Follow the arterial supply :**

  left colic

  inferior mesenteric

# ADEQUATE LYMPHADENECTOMY HOW MANY NODES?

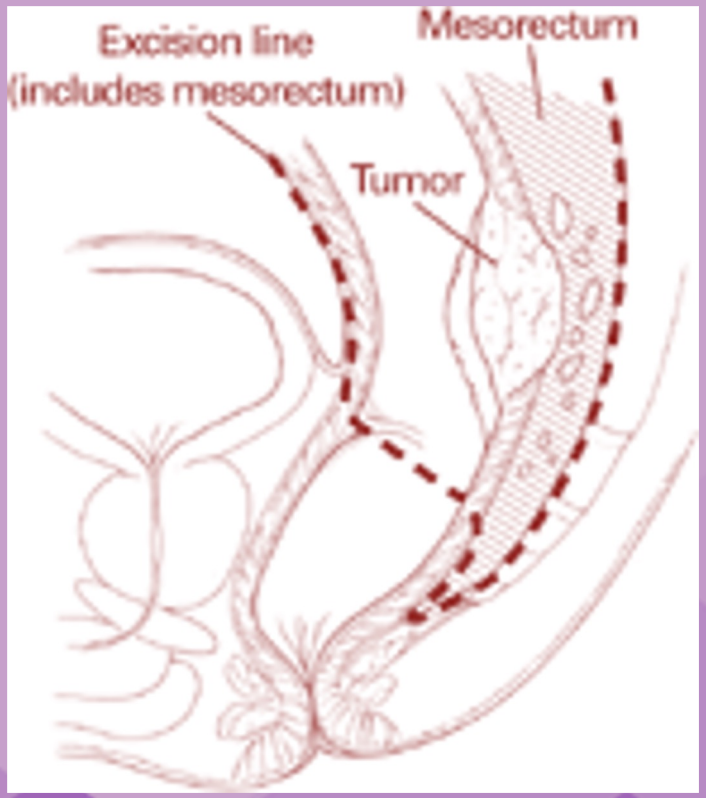
- **Colon - 12 nodes**

QUESTION:10

# CONCEPT OF MRE AS A LATERAL CLEARANCE IN RECTAL CANCER

# WHAT'S TME?

- TME is precise sharp dissection around the fascia propria so that mesorectum can be removed in toto along with the rectum



# TOTAL MESORECTAL EXCISION

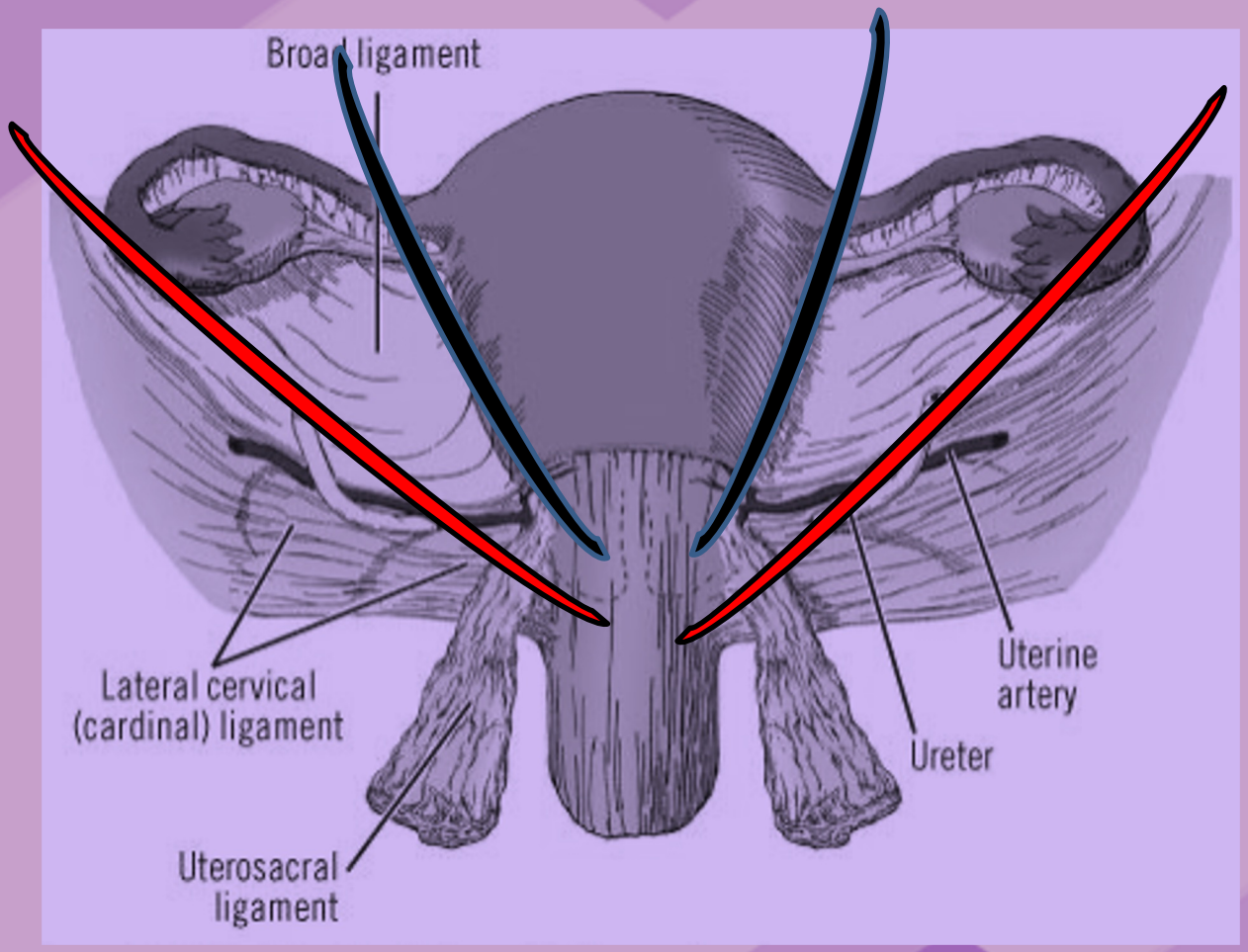
- Commonest cause of local recurrence in rectal cancer is incomplete excision of mesorectum
- So total mesorectal excision [TME] with circumferential clearance of rectal cancer is the procedure of choice
- TME is mandatory in lower and middle third rectal cancer
- In upper third cancer, 5cm clearance of mesorectum from lower margin of the cancer is enough

# QUESTION:10

After anterior resection
If Margin is positive -**How to proceed ?**

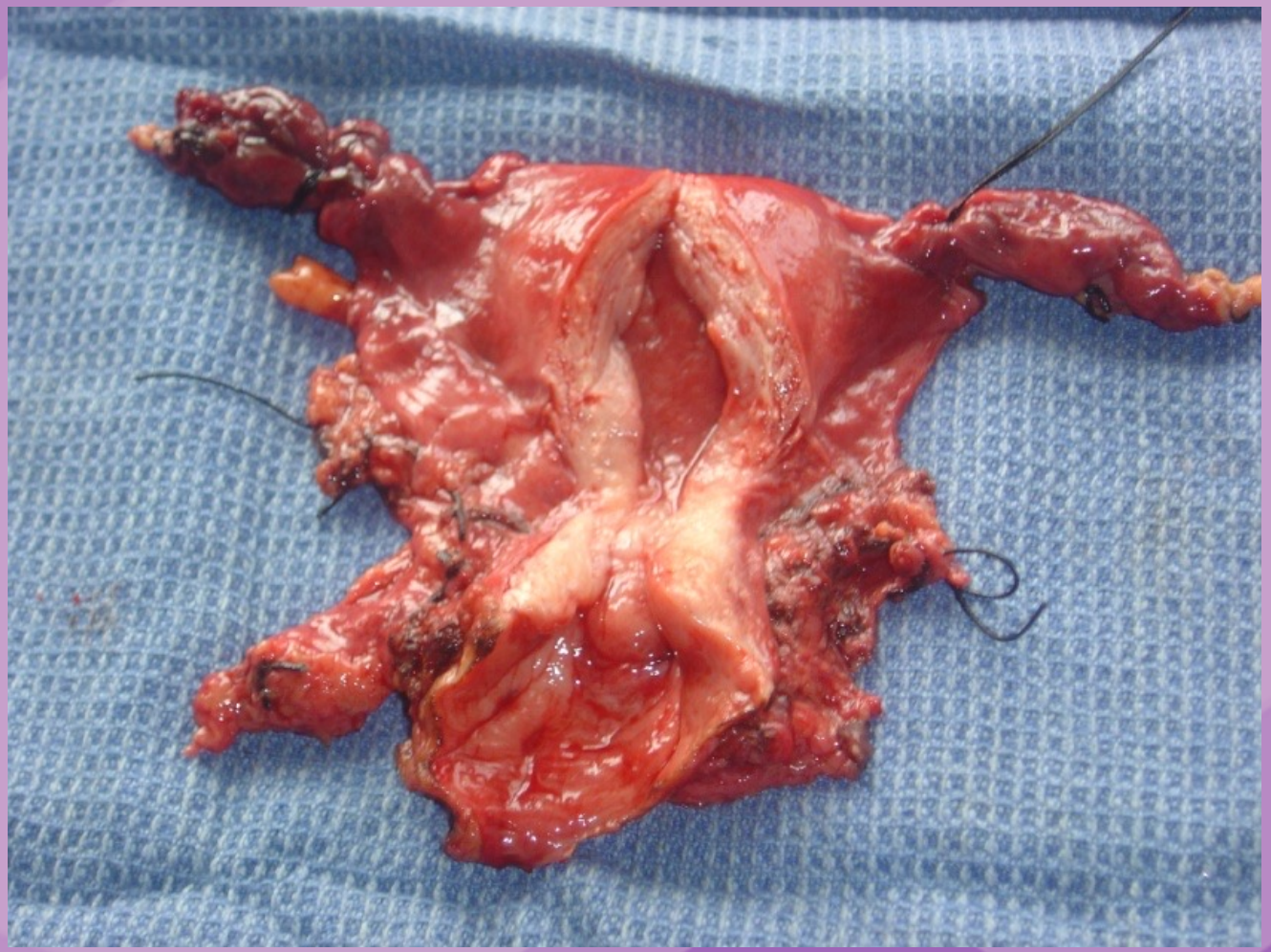
# GYNEC CANCER

# BENIGN vs MALIGNANT

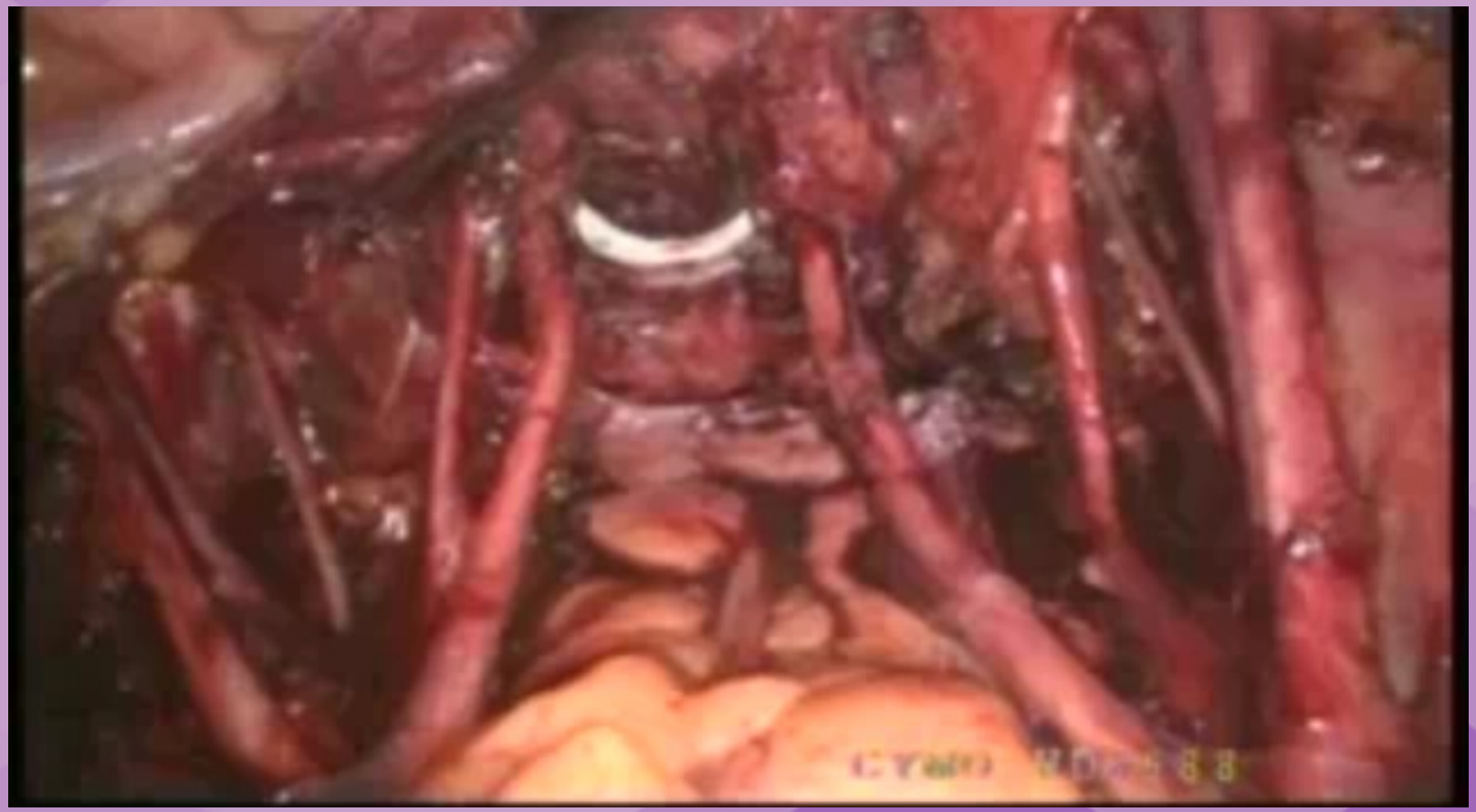



2
3

# CLEARENCE LATERAL



# COMPLETENESS OF SURGERY PLND



# QUESTION:13

**Hysterectomy for diagnosed as benign disease.**

**HPE - CA Cervix -How to Proceed.**

# QUESTION:13

## Rational of R2 resection in ovarian cancer

# BREAST CANCER

# QUESTION:13

After BCS - If Margin is positive

**How to proceed ?**

# QUESTION:13

After MRM - If Margin is positive

**How to proceed ?**

# THYROID CANCER

# QUESTION:13

If tumor adherent to trachea – how can proceed

# Soft tissue sarcoma

# QUESTION:13

How much clearance

**Linear**

**Laterl**

**Near the vessal \ bone**

# QUESTION:13

After STS - If Margin is positive

**How to proceed ?**

# GUIDELINES

# GIT CANCER

- Esophagus - 10 cm
- Stomach - 5 cm
- Hepatobiliary - 1 cm
- Pancreas - 1 cm
- Colon - 5 cm

# HEAD AND NECK CANCER

- Oral cavity - 1 - 2 cm
- P N S - 1 cm
- Larynx - 0.5 cm
- Pharynx - 1 cm

# GYNEC, BREAST CANCER

Primary Surgery :

- Clearence 1 cm

# ADEQUATE LYMPHADENECTOMY

# HOW MANY NODES?

- Esophagus - 25 nodes
- Stomach - 15 nodes
- Hepatobiliary - 3 nodes
- Pancreas - 10 nodes
- Colon - 12-15 nodes

# HEAD AND NECK SURGERY

- Head & Neck :
  - RND - 10 nodes
  - SND - 6 nodes
  - Thyroid - 6 nodes

# GYNEC SURGERY

Pelvic Lymph node Dissection

- How many nodes? 6 nodes

# RESECTABILITY RATE

- Esophagus - 20%
- Stomach
  - Proximal - 20%
  - Distal - 35%
- Hepatobiliary - 15%
- Pancreas - 20%
- Colon - 95%

# CASE SELECTION

உந்நான் அளவும் பினியளவும் காலமும்
கந்நான் கருதிச் செயல்

( திருக்குறள் - 949
அதிகாரம் - மருந்து )

# POOR CASE SELECTION
# SAFETY MARGIN IS NARROW

# GIVE CONFIDENCE NOT GUARANTEE…


ASI - Tamilnadu Chap
llege of Surgeons
H ZONE CONFERENCE
Date : 15th &
Venue : GURU H

# THANK YOU