CERVICAL CANCER

SURGICAL MANAGEMENT

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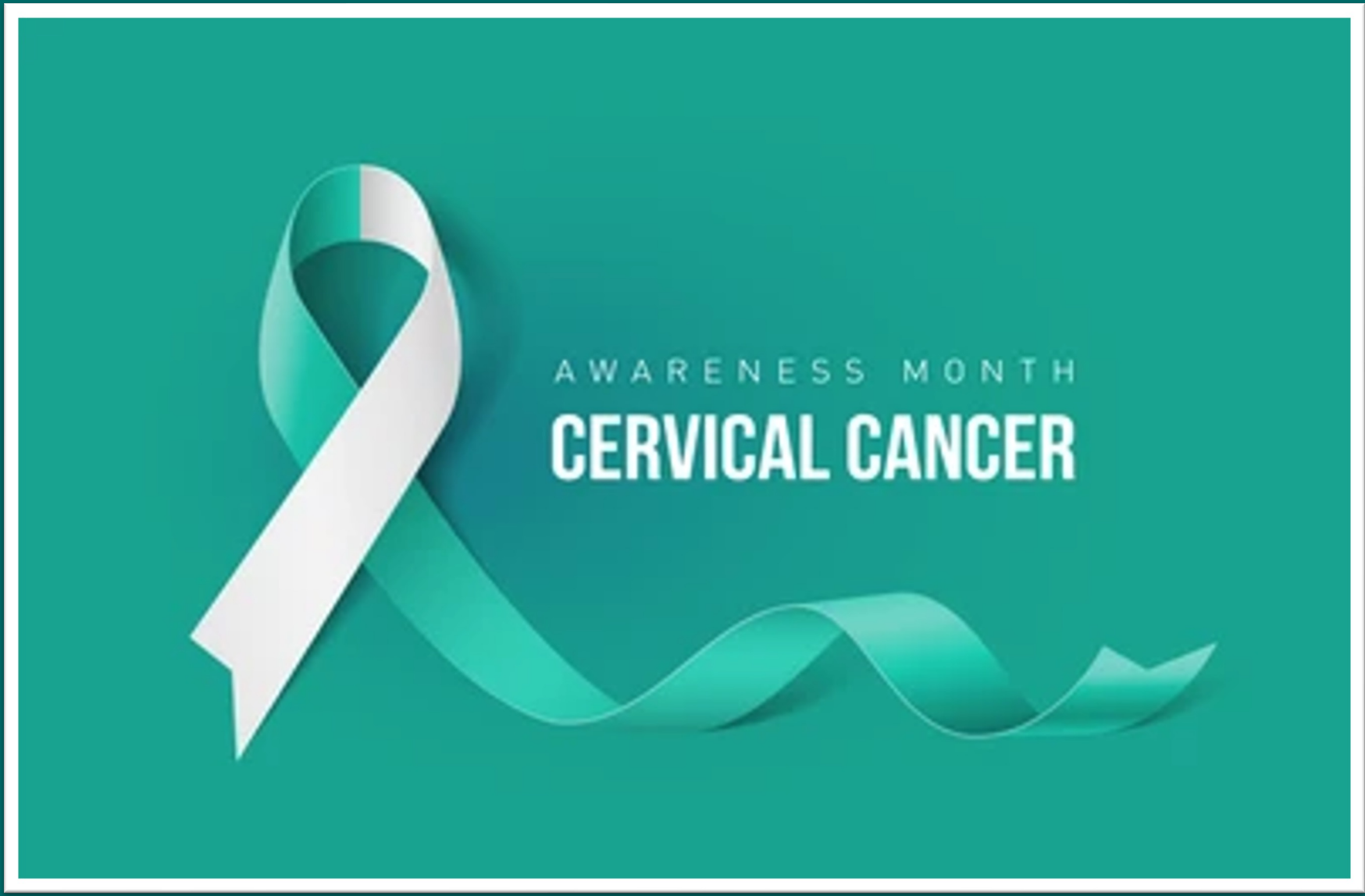
CERVICAL CANCER - RIBBON



Fact should know FIRST

- I am a Gynaec oncologist
- When treating the cervical cancer what should I know?

SUCCESSFUL TREATMENT DEPENDS ON

- **Sound knowledge of the disease**
- **Wise selection of the modality of treatment**
- **Accurate and skillful surgical technique**

Stanford Cade

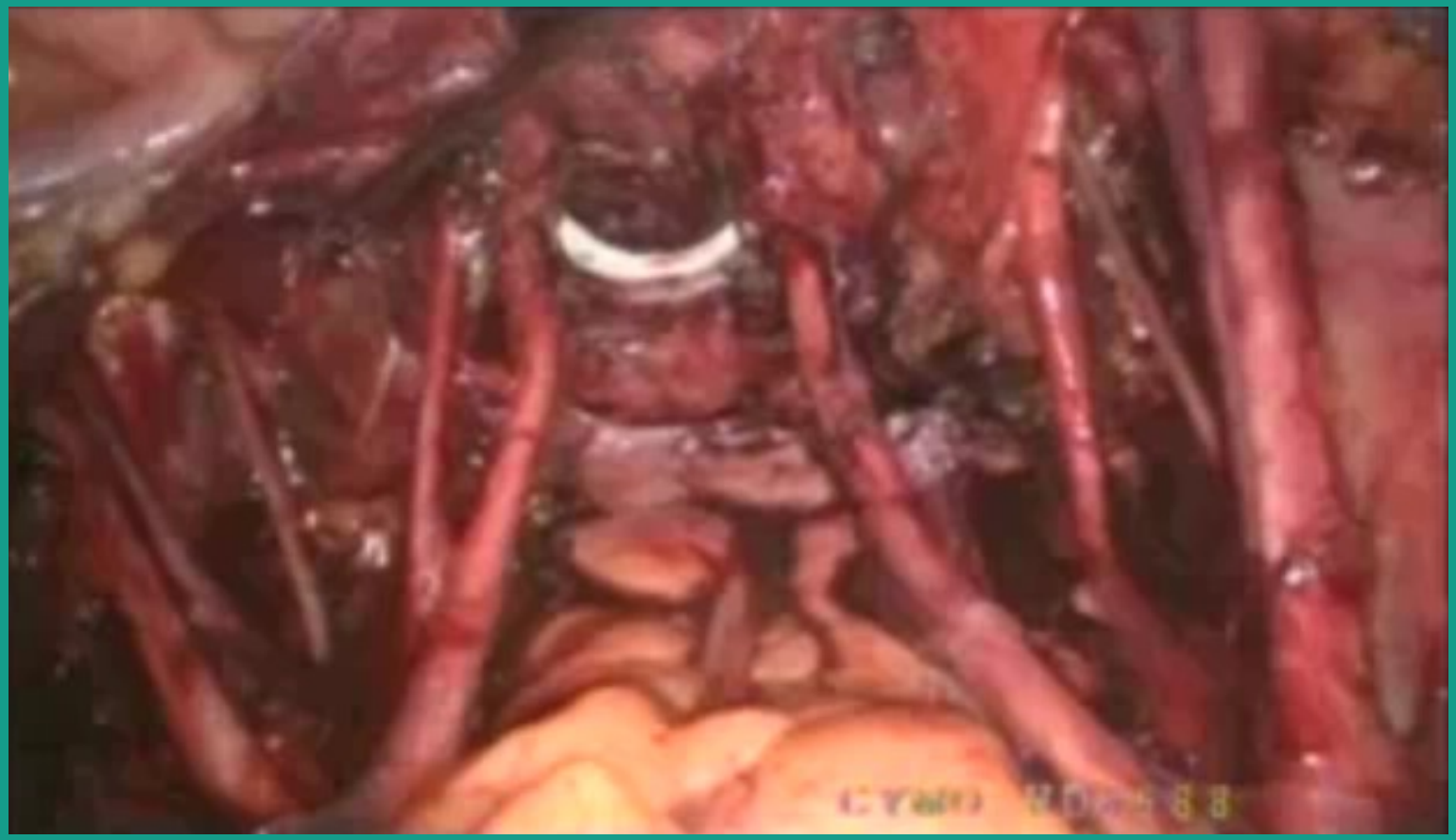
ONCOLOGICAL NORMS

Adequate Surgery + Adjuvant therapy is the Standard treatment

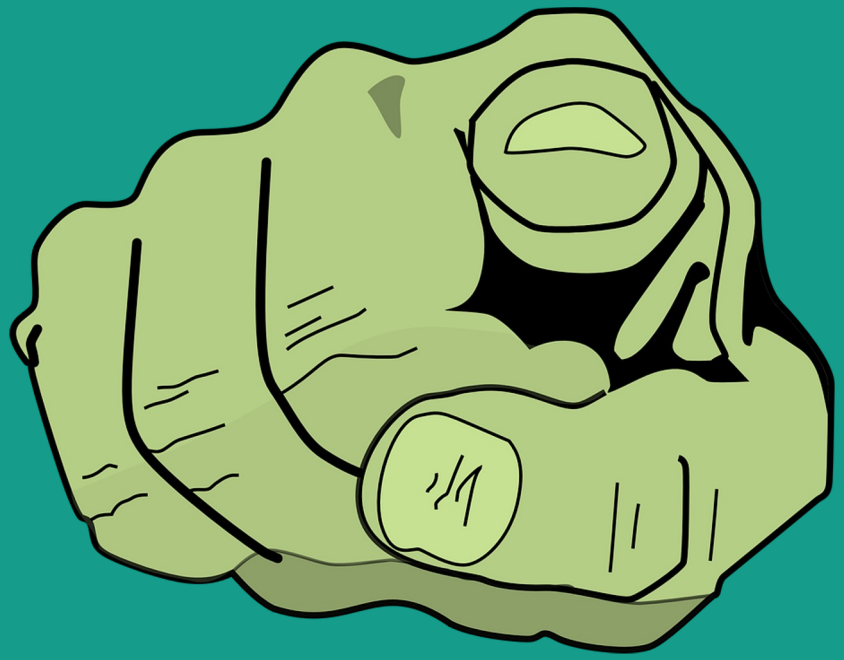
Adjuvant treatment is not an answer to incomplete surgery

COMPLETENESS OF SURGERY

All tubular structure to be documented



YOU



OPERATING SURGEON – YOUR RESPONSIBILITY

simultaneous achievement of the

- cure of the cancer
- minimal impact on quality of life

TO ACHEIVE - CURE OF THE CANCER

DO'S

- Surgical planes
- Tumor handling
- Tumor margins
- Node count
- Ligating artery at its origin

DONT'S

- Tumor spill
- Crushing of lymph node

TO ACHEIVE - MINIMAL IMPACT ON QUALITY OF LIFE

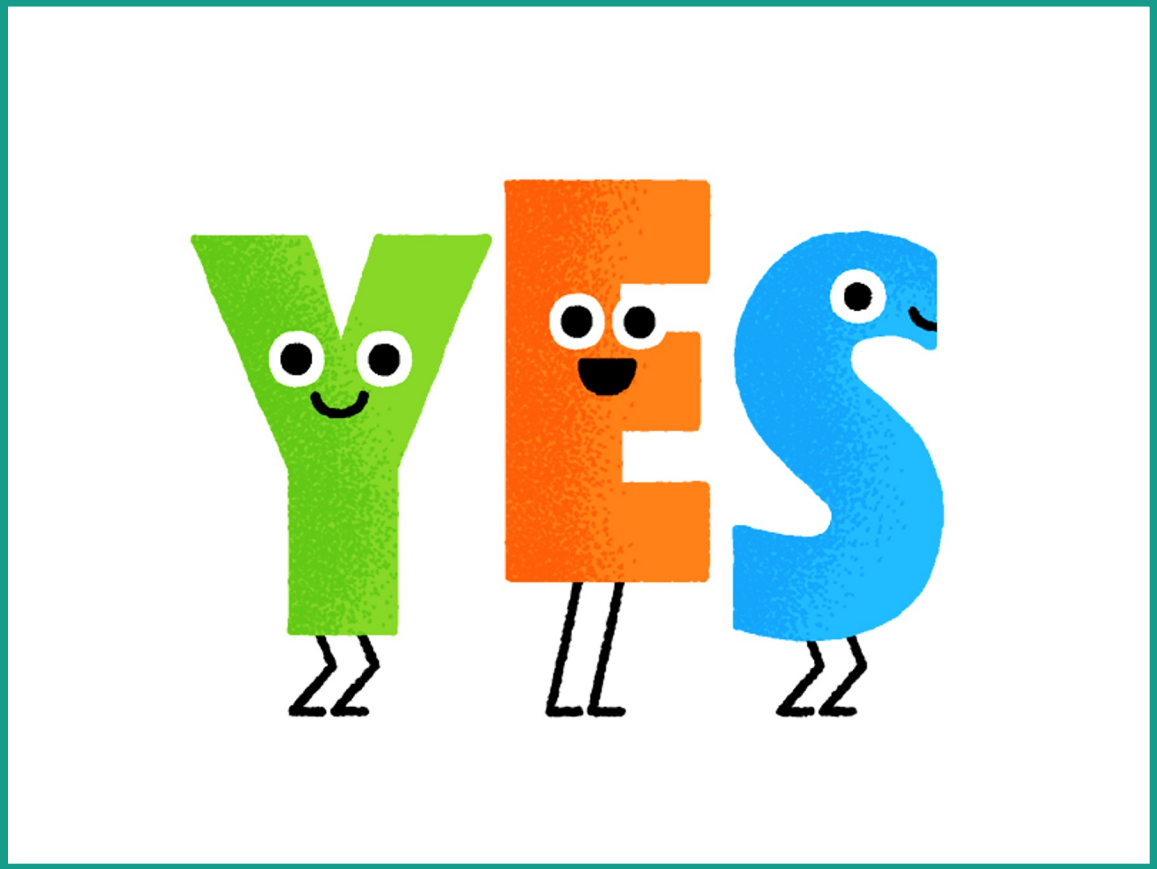
- **Wise selection of the modality of treatment**

CA CERVIX – EARLY STAGE

SURGERY vs RT

CA CERVIX – EARLY STAGE

IS SURGERY SUPERIOR THAN RT ?



CA CERVIX – EARLY STAGE

IS SURGERY SUPERIOR THAN RT ?

- Preservation of ovary
- Vaginal lubrication and pliability is preserved
- Per-operative assessment of disease
- H.P.E and adjuvant RT
- Late complication is less
- Psychological benefit

ONCOLOGY CONCEPT

WHEN SURGERY TO BE DONE?

ORDER OF INVESTIGATION

- CONFIRMATION OF DIAGNOSIS
  - Biopsy

- LOCAL ASSESSMENT
- CT / MRI scan abdomen

- METASTATIC WORKUP
  - CT scan chest

TREATMENT CLASSIFICATION

EARLY CANCER

- Size < 4 cm
- No parametrial involvement

LOCALLY ADVANCED CANCER

- Size > 4 cm
- Parametrial involvement & Hydronephrosis

METASTATIC CANCER

TREATMENT OPTION

EARLY CANCER (INTENT – CURE)

WERTHIMS HYSTERECTOMY +/- R.T

LOCALLY ADVANCED CANCER (INTENT – ? CURE)

RADICAL RT – EXT BEAM RT + BRACHYTHERAPY

METASTATIC CANCER (INTENT –PALLIATION)

PALLIATIVE CHEMO

AFTER SURGERY - WHAT TO BE DONE?

AFTER SURGERY

ADJUVANT RT

Sedlis criteria (postoperative RT alone indications):

- LVSI
- Deep stromal invasion (>1/3)
- Tumour >4cm
- Adenocarcinoma

AFTER SURGERY

ADJUVANT CHEMOIRRADIATION

Peters criteria (postoperative chemo-RT indicators):

- positive margin
- parametrial involvement
- positive lymph nodes

WHEN SURGERY SHOULD NOT BE DONE?

HISTORY TAKING -INOPERABILTY

- Unilateral leg edema – Reginal node with extra capsular invasion
- Sciatic pain - Reginal node with extra capsular invasion
- Back ache. - sacral plexus involvement.
- Ascitis. - Peritoneal involvement.

CLINICAL SIGNS - INOPERABILTY

- Parametrium involvement
- Ascites
- Liver metastases
- Left supraclavicular node
- Pleural effusion

CT SCAN - INOPERABILTY

Extent of Primary - adjacent organ invasion (bladder, rectum)

Nodal status - Para Aortic Nodes more than 1cm

Pelvic Nodes more than 3cm

Metastases - Liver, lung

Peritoneum

SURGERY PRINCIPLE

EXTEND OF SURGERY

TYPE OF HYSTERECTOMY

PIVER CLASSIFICATION

TYPE 1	Extra fascial hysterectomy
TYPE 2	Modified radical hysterectomy
TYPE 3	Radical hysterectomy
TYPE 4	Superior vesical artery scarification
TYPE 5	Pelvic exenteration

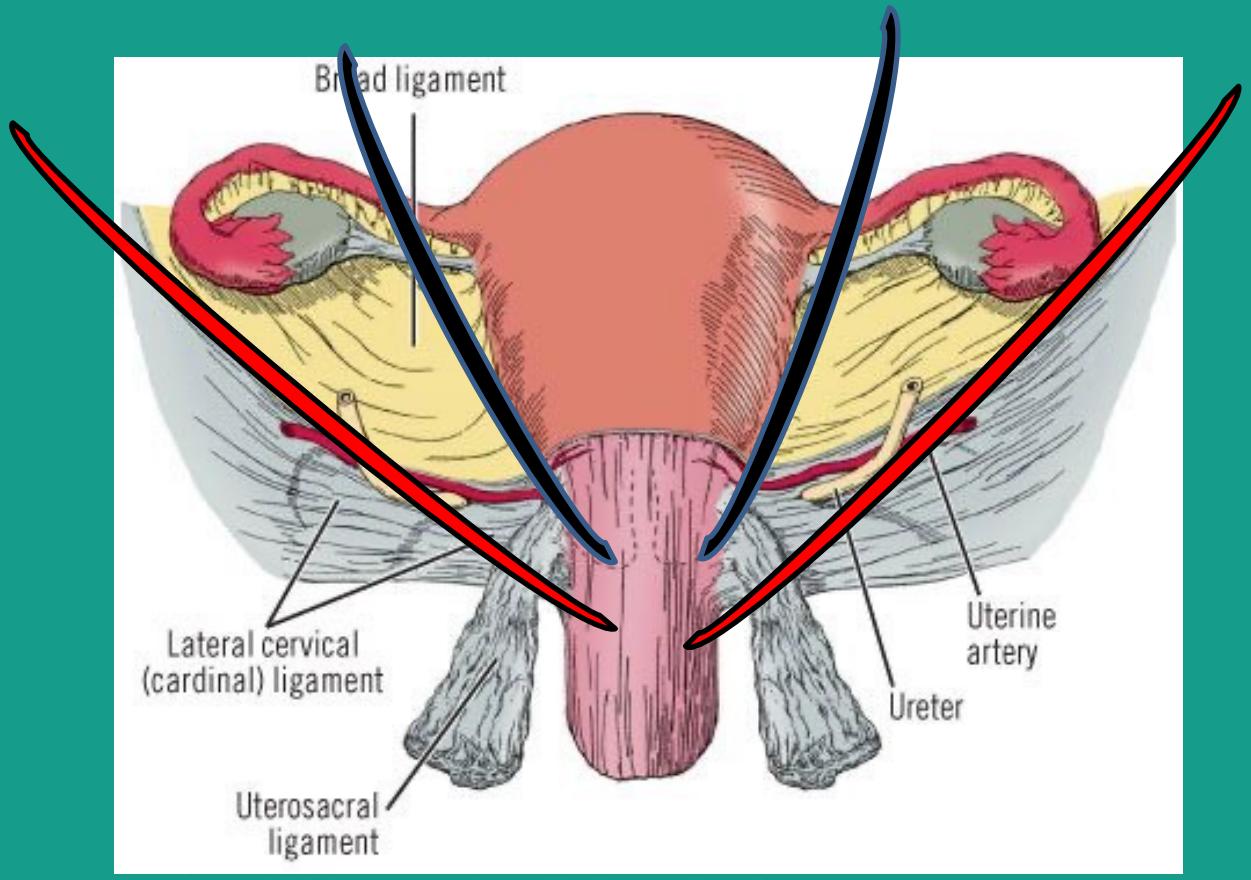
AIM OF SURGERY

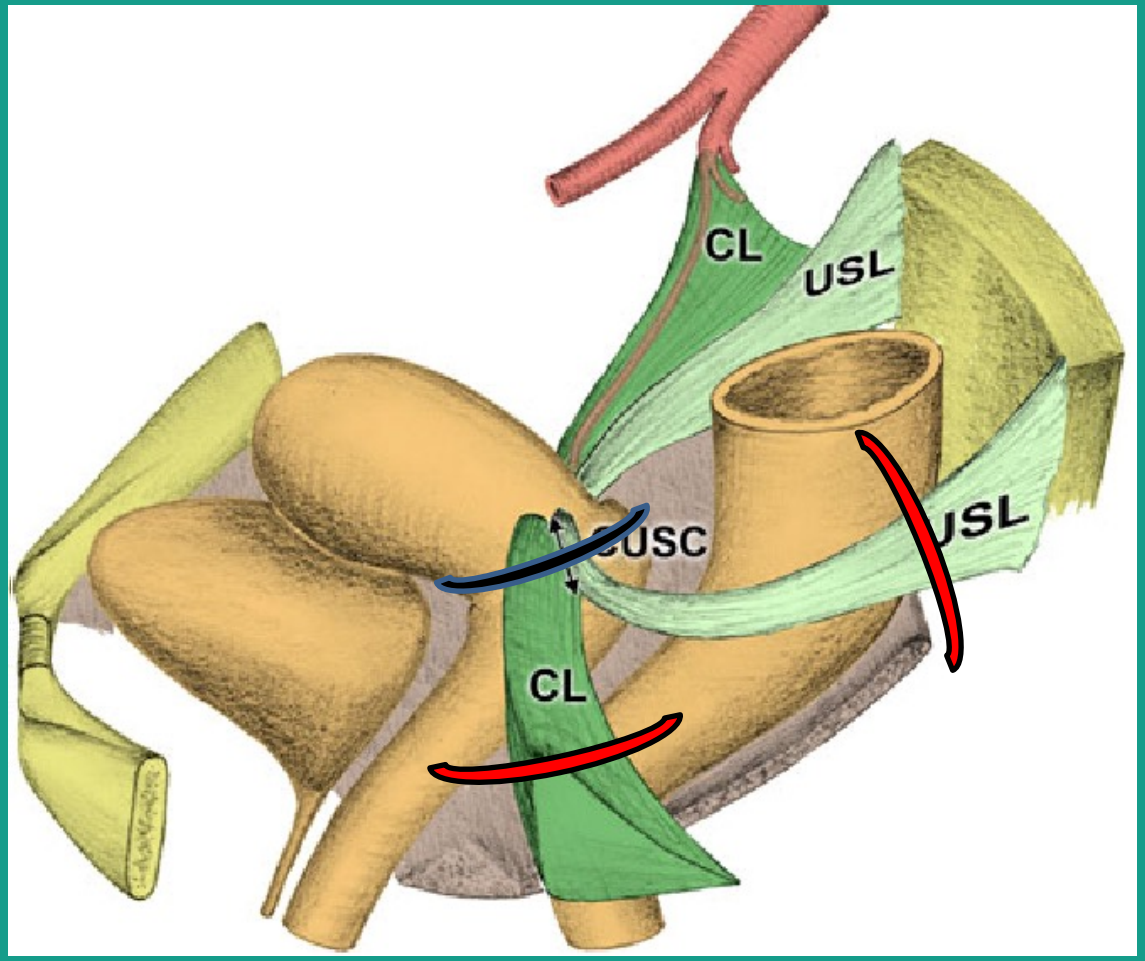
R0 RESECTION

ACHIEVING R0 RESECTION

- Excision of tumor with wide clearance & lymphadenectomy
- With - restoration of function

BENIGN vs MALIGNANT




CL
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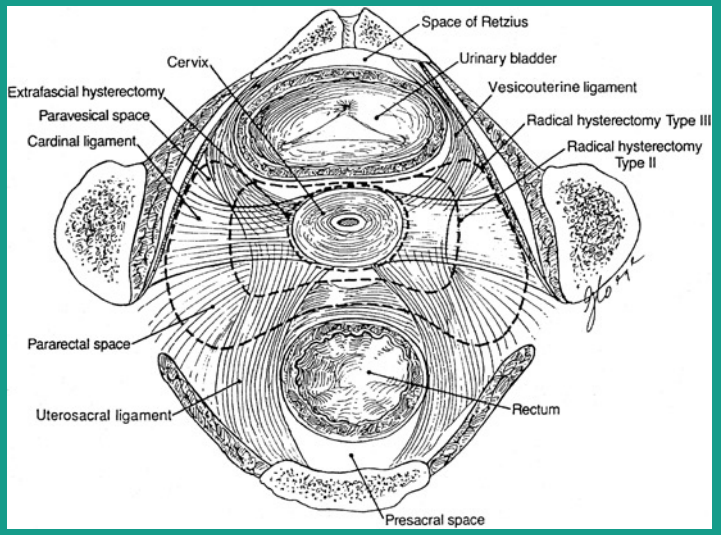
WERTHIMS HYSTERECTOMY

EN BLOC removal of uterus, cx, proximal vagina' Para cervical paravaginal tissue up to sidewall

Removal of uterosacral ligaments

Ligation of uterine vessels at their origin



ADEQUATE SURGERY

Primary Surgery :

- Clearence 1 cm

Pelvic Lymph node Dissection

- How many nodes? 6 nodes

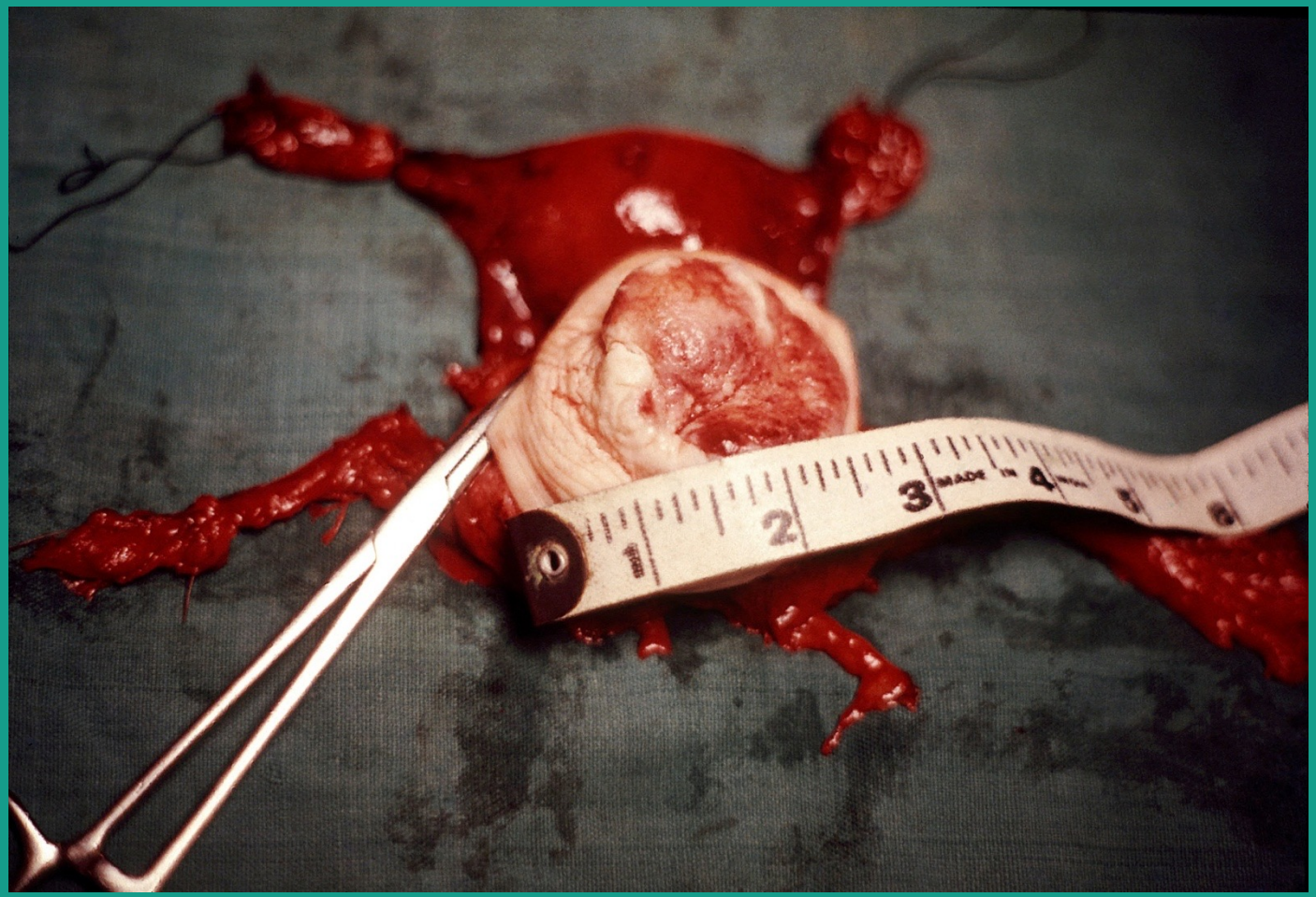
MARGIN

RADIAL MARGIN
VS
linear margin

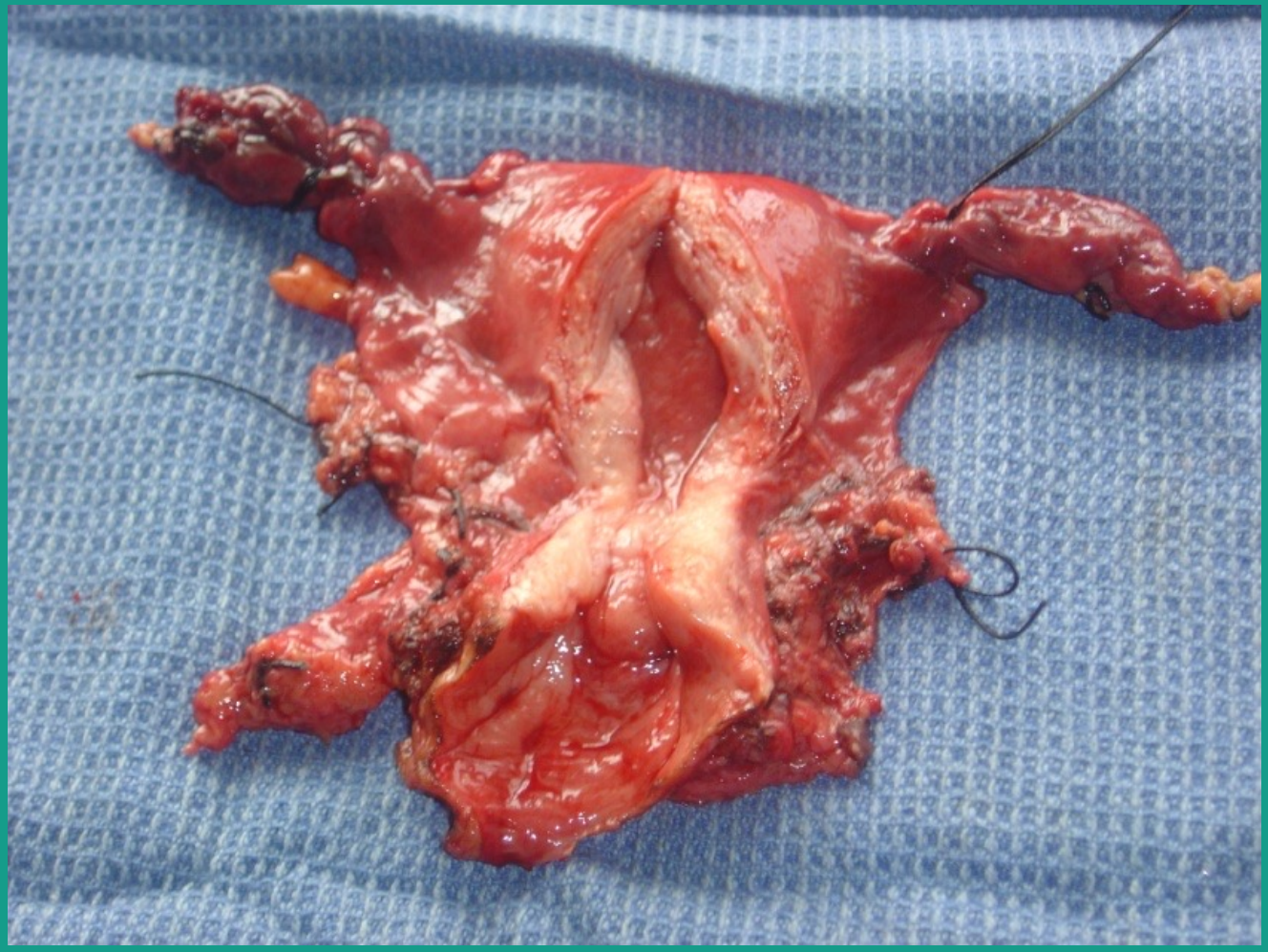
RADICAL SURGERY FOR CANCER

- Gynaec Cancer fails more at Radial margins.

CLEARENCE DISTAL



CLEARENCE. LATERAL

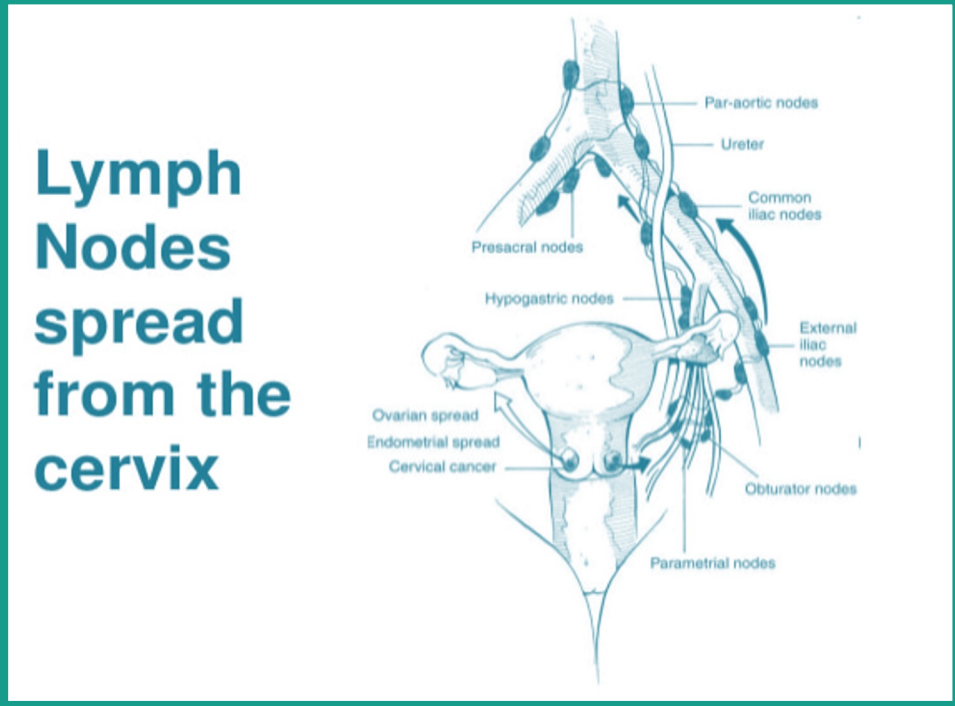


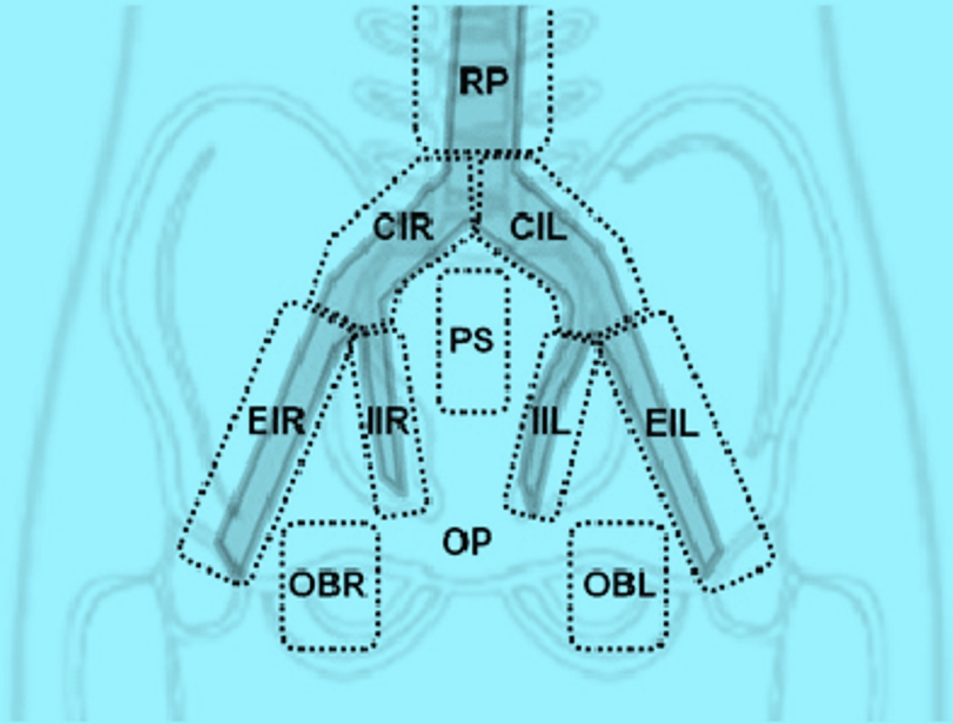
PELVIC LYMPH NODES

LYMPH NODE DISSECTION

Nodal spread - Follow the arterial supply :

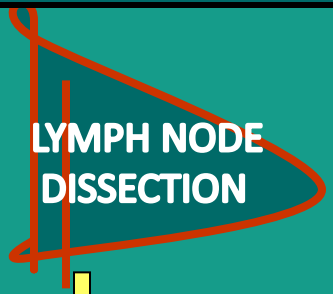
- obturator
- Internal iliac
- External iliac





II	Internal iliac	Left/Right
EI	External iliac	Left/Right
CI	Common iliac	Left/Right
OB	Obturator	Left/Right
PS	Presacral	
OP	Other pelvic	
RP	Retroperitoneal	

What follows is.....



CLEARANCE

DISTAL

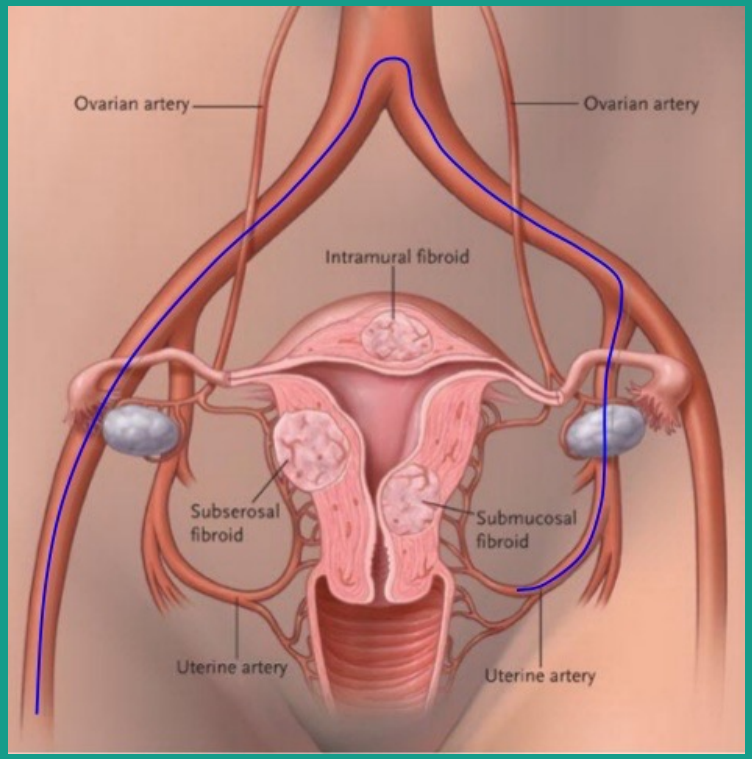
LATERAL

LIGATING VESSELS @ ORGIN

SURGERY PROCEDURE

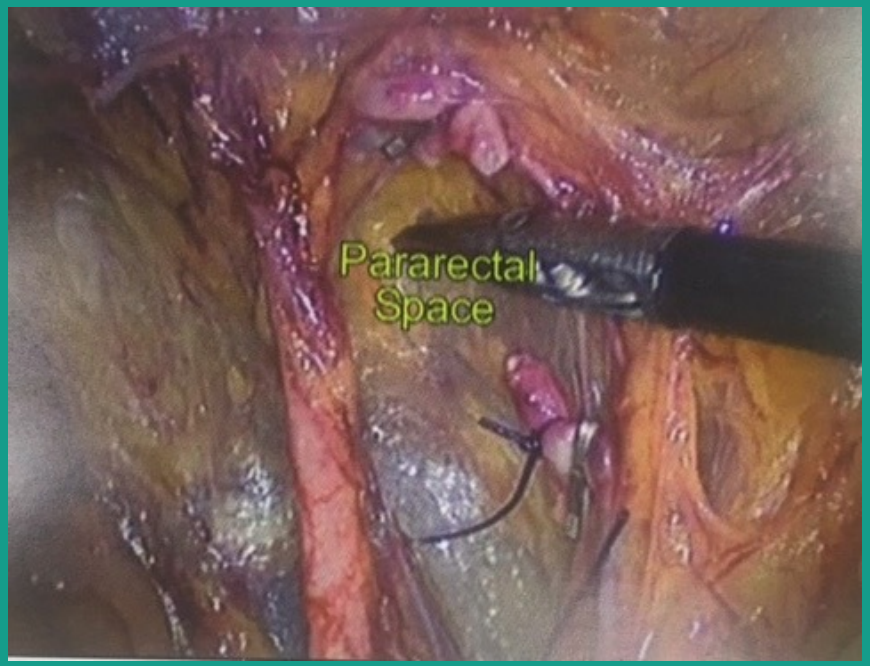
BASIC PELVIC ANATOMY

VASCULAR ANATOMY



- **The uterine artery** is the first branch of anterior division of internal iliac artery .
- It originates about 6”(six inches) distal to the bifurcation of common iliac artery.

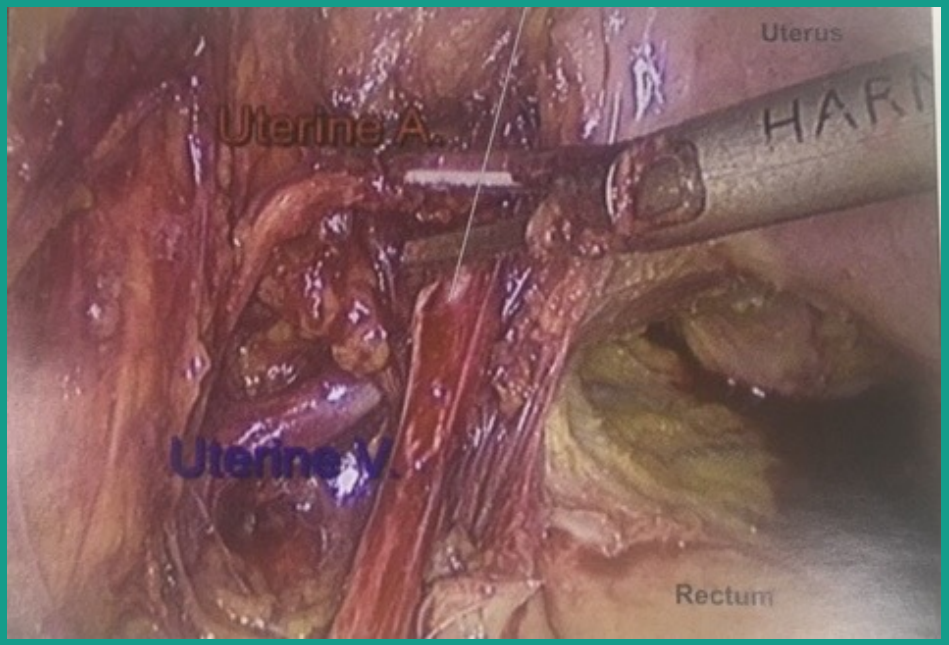
THE PARARECTAL SPACE



- The pararectal space lies lateral to the ureter and medical to the internal iliac vessels. It continues downwards upto the levator ani muscle.
- The only structures crossing this space are the uterine artery and vein.

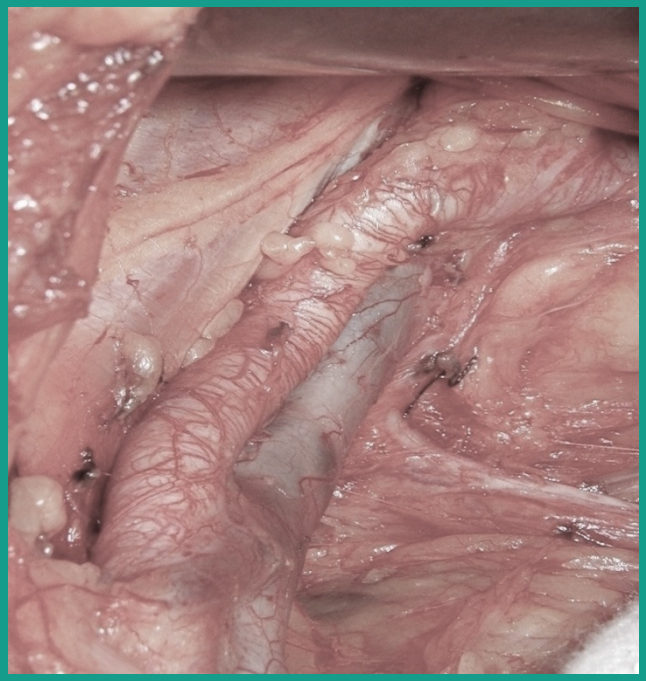
URETER Vs VESSELS

- The uterine artery traverses the pararectal space and crosses above the ureter from lateral to media side to enter the uterus.

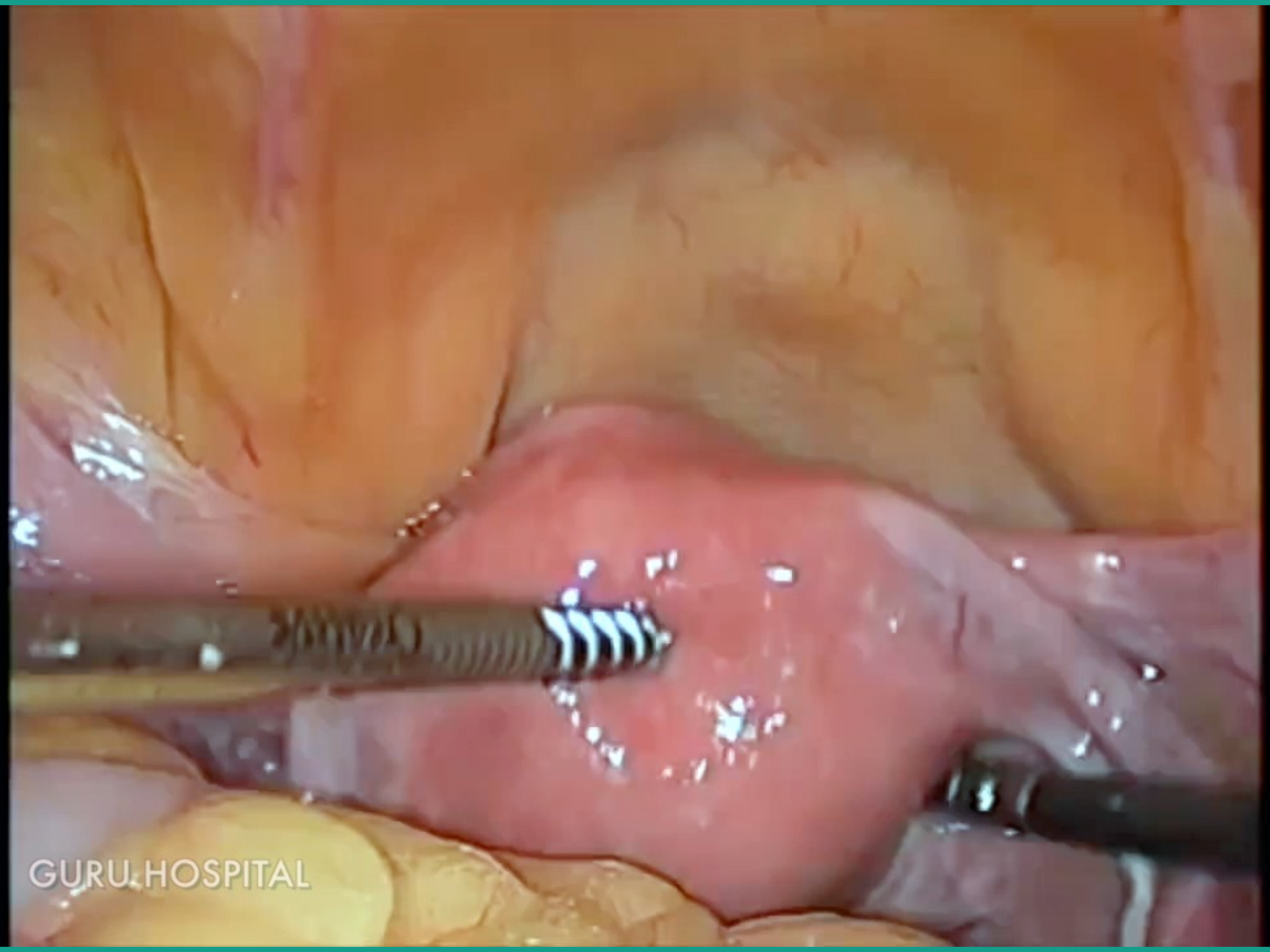


- The uterine vein, contrary to popular belief, comes from below the ureter to join the internal iliac vein. Thus, the ureter lies in the fork between the uterine artery above and the uterine vein below.

PELVIC NODAL DISSECTION



- Superiorly -upto bifurcation of com. iliac vessels
- Inferiorly -upto deep circumflex iliac vein
- Laterally -upto genitofemoral n.
- Medially -upto obturatar n.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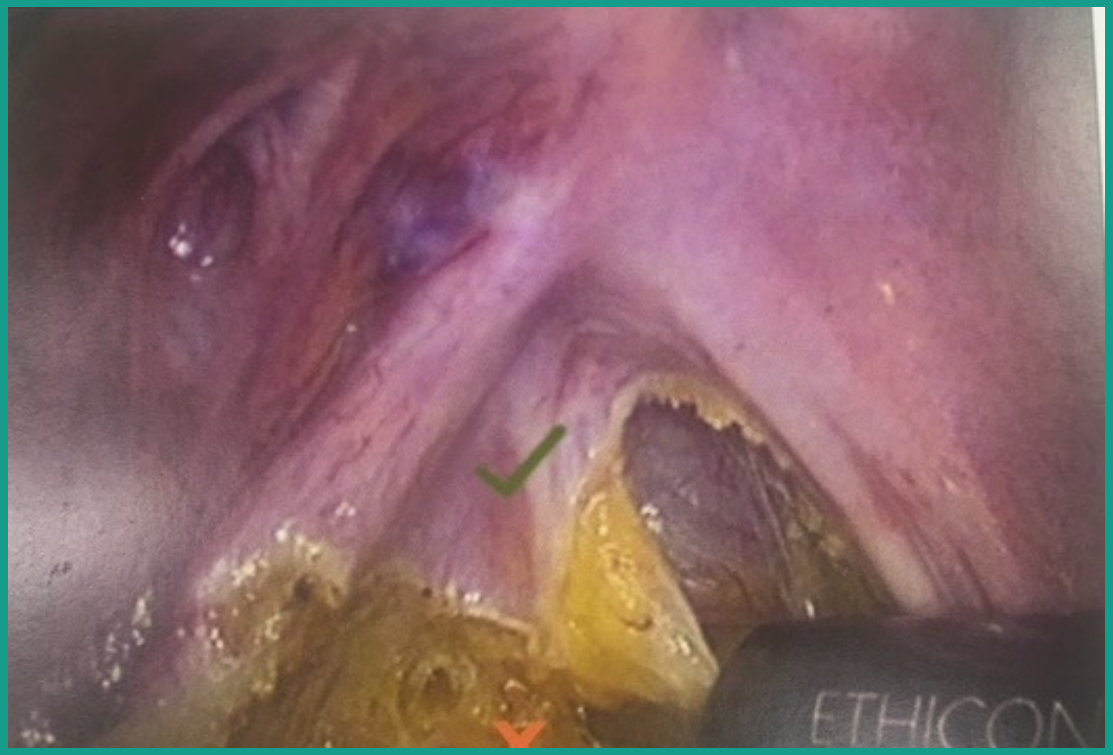
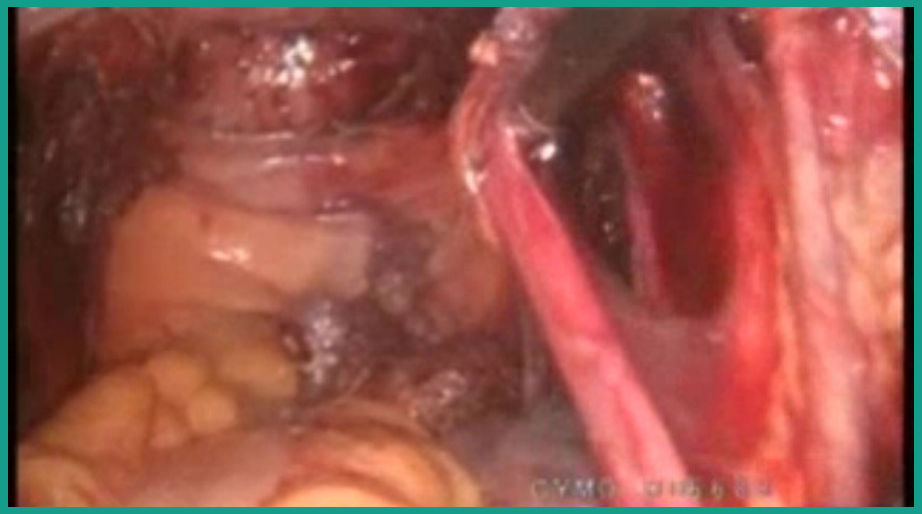
TRICK OF SURGERY

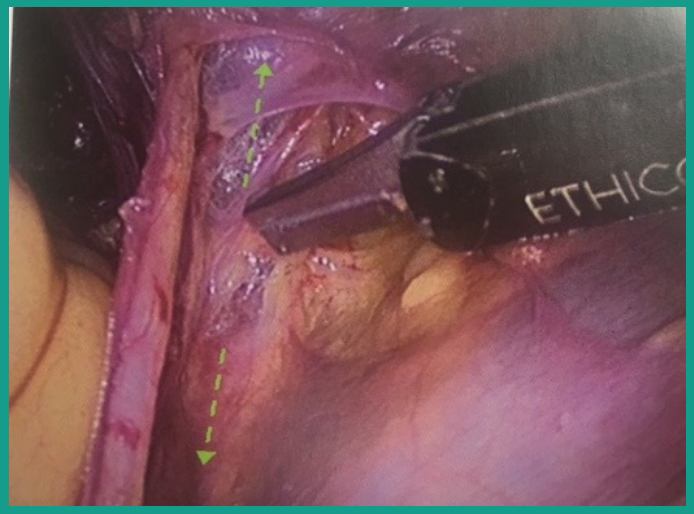
FAT BELONGS TO RECTUM



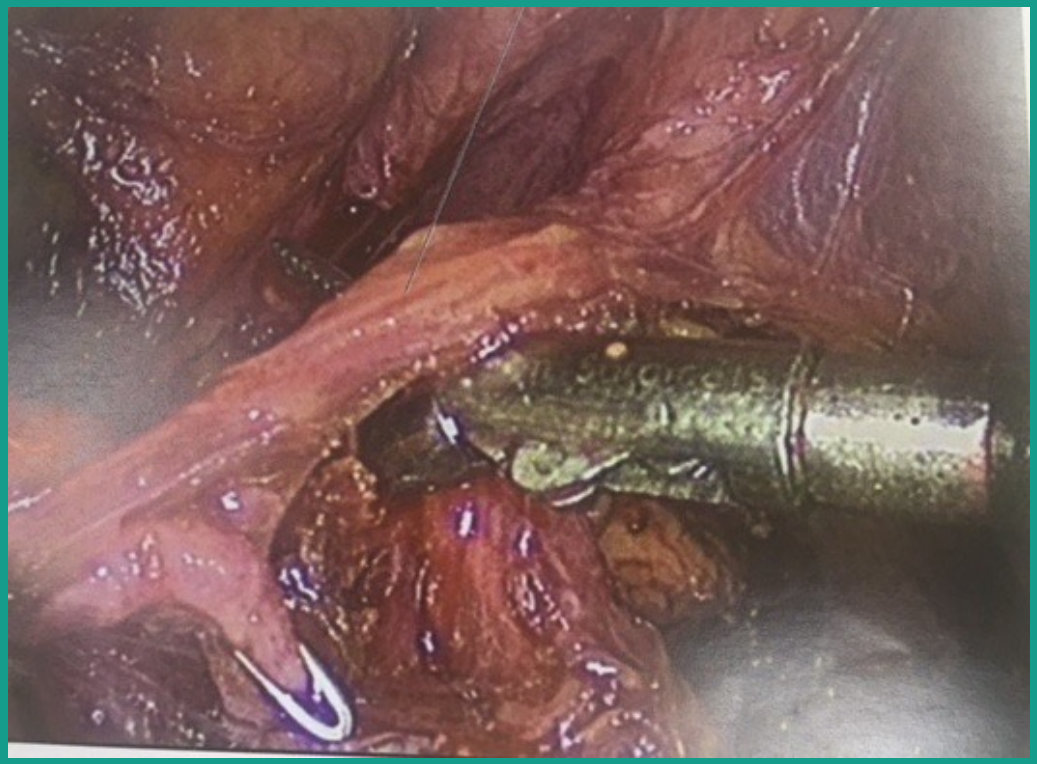
DISSECTION ALWAYS PARALLEL TO URETER

- The blood supply of the ureter is parallel to its course and
- so denudation of the ureter during surgery is not advisable.
- The uterine artery gives out a small branch to the ureter.





SAFE DISSECTION AT URETERIC TUNNEL



- Commonest site of ureteric injury is in ureteric tunnel
- Two small veins run in the endopelvic fascia, which forms the roof of ureteric tunnel.

ADJACENT ORGAN INVOLVEMENT

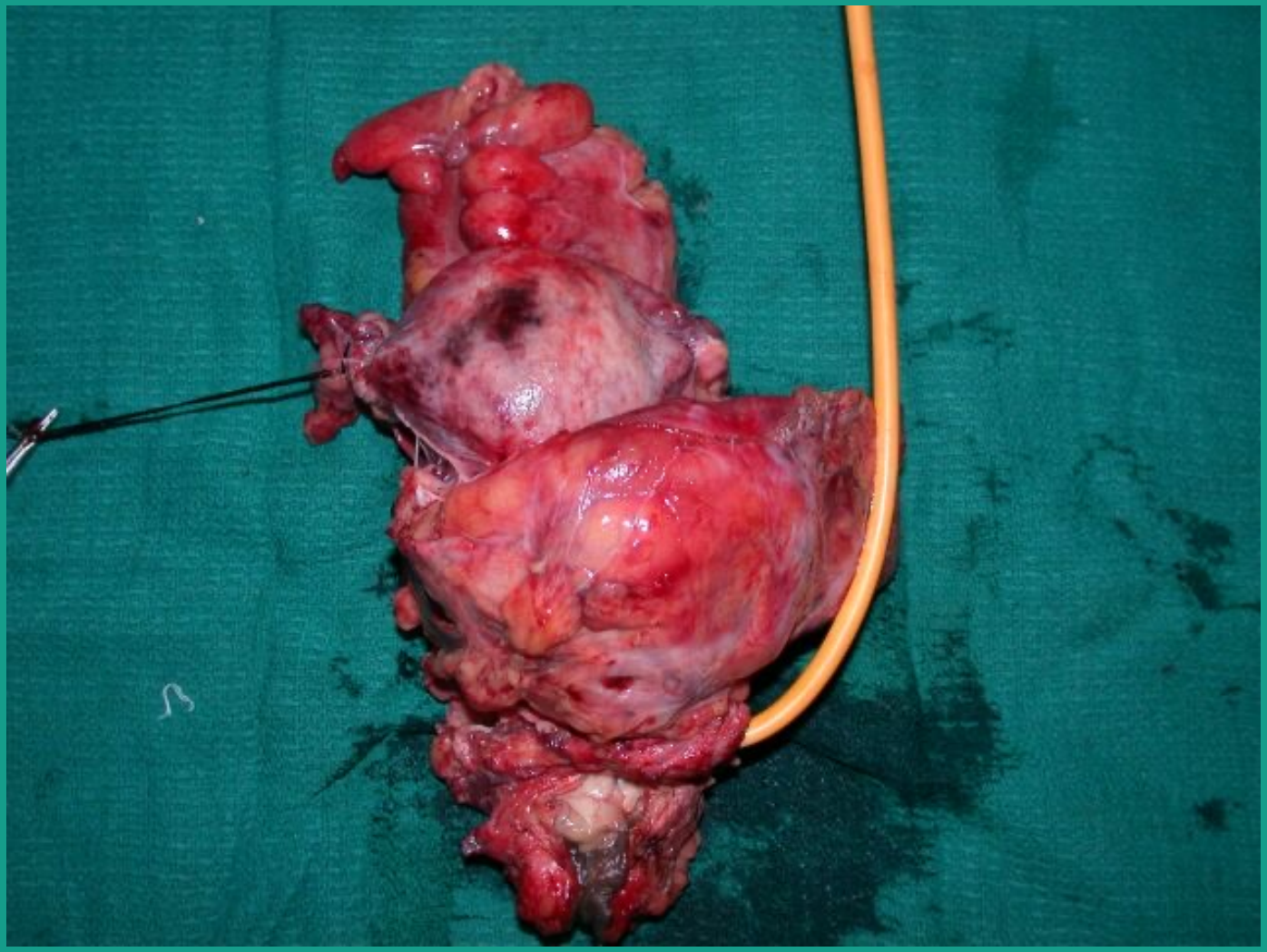
Solution ?

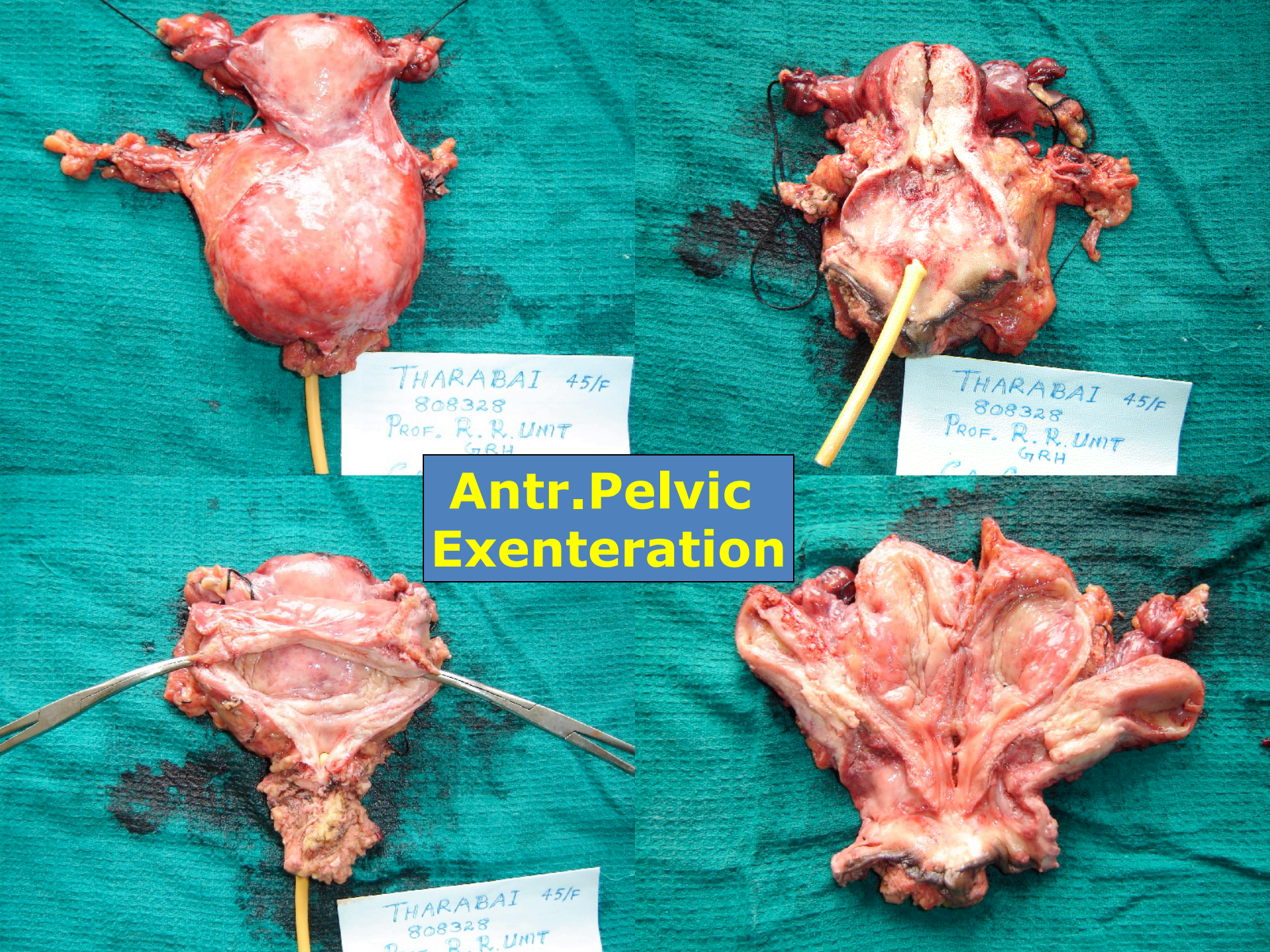
PELVIC EXENTRATION

- Still the only option available for
  - Locally advanced and
  - Recurrent pelvic visceral cancer in the absence of distant disease

- Provides an opportunity for long term survival in select group of patients

POSTERIOR PELVIC EXENTERATION





Antr.Pelvic Exenteration

TAKE HOME MESSAGE

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- **Wise selection of the modality of treatment**
- **Accurate and skillful surgical technique**

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ONCOLOGICAL NORMS

Adequate Surgery + Adjuvant therapy is the Standard treatment

Adjuvant treatment is not an answer to incomplete surgery

SURGEON IS A PROGNOSTIC FACTOR...

THANK YOU