Surgical management of Female Genital Tract Cancers

Dr Poonam Varma Shivkumar
Prof and Head
Dept of OBGY , MGIMS, Sevagram, Wardha

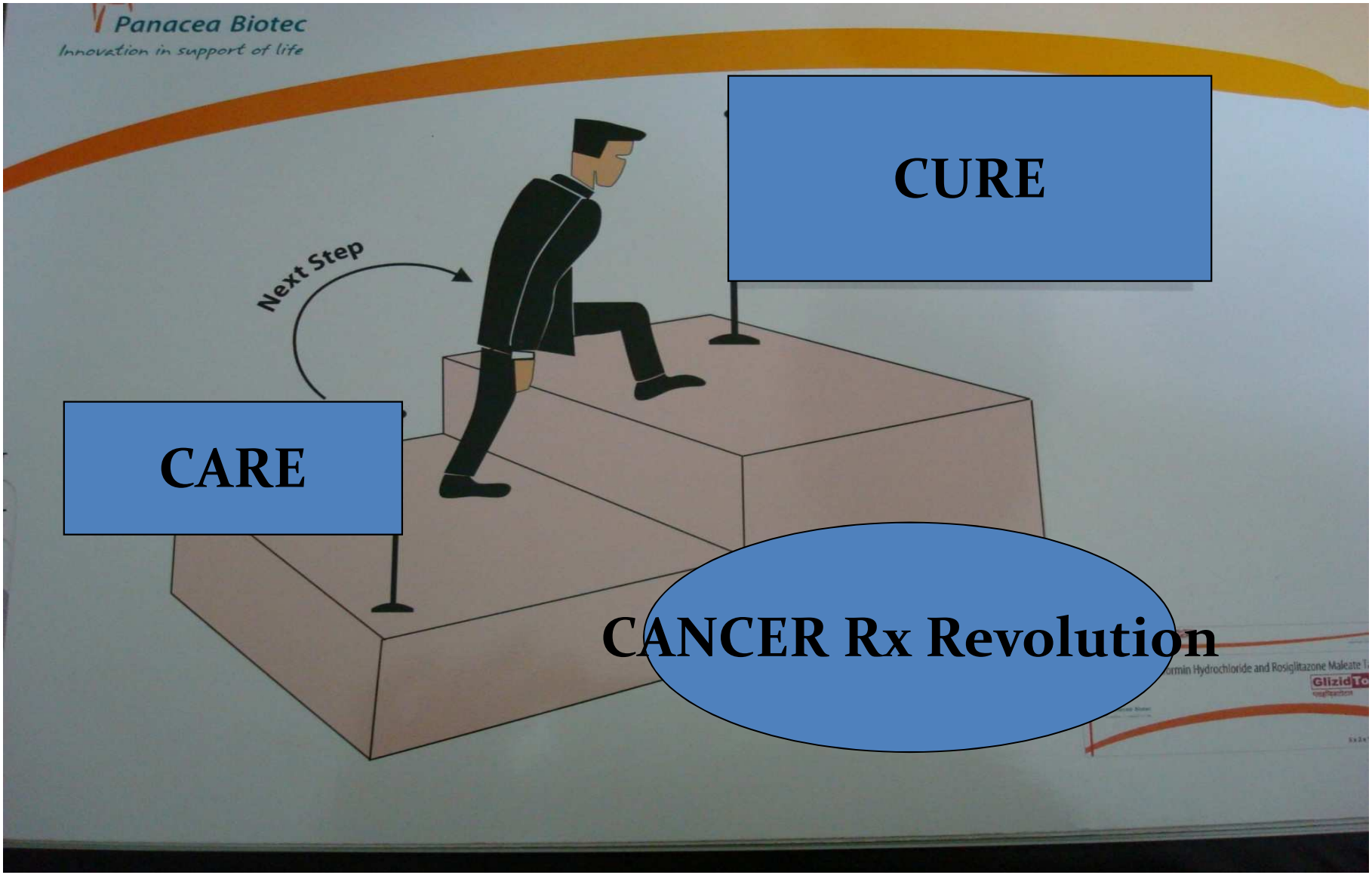
INCIDENCE IN INDIA

- CANCER CERVIX - 60-70%
- CANCER OVARY - 15-20%
- CANCER UTERUS - 5- 8%
- CANCER VULVA - 3-5%
- CANCER VAGINA - NEARLY 1-3%
- CANCER FALLOPIAN TUBE - .5-1.5%

INTRODUCTION CANCER CERVIX

- Worldwide Carcinoma Cervix is the most common cancer affecting women after Breast cancer
- The incidence is higher in developing countries
- Invasive cancer is considered a preventable disease
- With cervical cytology screening programmes preinvasive lesions can be detected earlier
- Treatment in the pre-invasive phase is highly effective

CHANGING SCENARIO



PRINCIPLES OF TREATMENT OF PREINVASIVE LESIONS OF CERVIX

- CIN I in younger women are often transient. 10-15% progress to high grade. Needs only follow up in low resource setting. If it persists for 2 years or more it should be treated.
- CIN 2 and 3 true cancer precursors. High possibility of progression to invasive cancer.
- 10-30% with LSIL on cytology will have CIN 2 and 3 in biopsy
- 1-2% with HSIL will have invasive cancer. Hence the treatment depends on histological classification of lesion.

TREATMENT OF CIN

- Ablative therapy if entire lesion is visible, TZ should be identified
  - Laser CO2
  - Cryotherapy
  - Cold coagulation
  - Electrocautery
  - Electrocoagulation

- Excision
  - Punch biopsy
  - Conization
  - LEEP/LLETZ
  - Hysterectomy

ABLATIVE PROCEDURES

Cryotherapy : Rapid freezing causes crystallization of cell water leading to cell dehydration and protein coagulation

- We use compressed gas cylinder (N2O or CO2) cryogen with metal probes.
- Depth of destruction - 5mm.

CO2 laser vaporization- high intensity beam - tissue vapourization - boiling of intracellular water and explosion of cell. Incineration of protein and mineral - charring of the treated area.

- Depth of destruction - 6-7mm

Rapid healing with minimal fibrosis.

- **Electrocautery** - oldest method.
- Depth of destruction only 2-3 mm. Residual lesion always present. No tissue is available for HPE.
- **Electrocoagulation diathermy** : Deep coagulation of cervical stroma with needle electrodes and destruction with ball electrodes.
- Healing in 4 weeks.

CRYOTHERAPY

PROS

1. Office procedure
2. Easy no expertise needed
3. No need for anaesthesia
4. Cure rate better with 1 or 2 quadrant lesion

CONS

1. Uterine cramp and pain
2. Watery discharge per vaginum
3. Slight spotting
4. Infection
5. Tissue for HPE not available.
6. Cervix stenosis 1-4%

CO2 LASER VAPORIZATION

PROS

1. Healing is rapid
2. Limited vaginal discharge
3. Less cervix narrowing
4. No diminution of fertility
5. No obstetric complication

CONS

1. Expensive
2. Needs expertise

EXCISION TECHNIQUES

- **LLETZ or LEEP-** to remove the entire TZ along with the lesion
- The excision of TZ treats the abnormality and specimen is available for HPE.
- Width of the loop-10-20mm
- Depth of the loop- 8-15mm
- Local anaesthesia

- Before procedure colposcopy repeated and Lugol's iodine applied to delineate the margin of the lesions.
- Complications- bleeding, cervical stenosis <2%
- Upto 20% post LLETZ specimen may have disease at the margin on follow up.
- Failure rate 4-10%

LLETZ

PROS

1. Local anaesthesia
2. Tissue for HPE got
3. Easy to use/ teach/apply
4. Low cost

CONS

Thermal artifact in tissue

COLD KNIFE CONE BIOPSY

- For microinvasive cancer where evaluation of margin is important.
- Local anaesthesia

  Incision should be made posteriorly and then carried anteriorly.
- Depth - 15-20mm
- If cone margin +ve -22% residual lesion
- If cone margin –ve 4% residual lesion
- Complications- haemorrhage, sepsis, infertility, stenosis

Contd..

PROS

1. Tissue for HPE
2. No thermal artifact
3. Suitable for endocervical glandular involvement

CONS

1. Cervical incompetence and stenosis
2. Expensive
3. Performed under anaesthesia in theatre

HYSTERECTOMY

- INDICATIONS

1. Associated Gynaecological Conditions
2. Persistent Abnormal Smear Following Excision or Ablative Procedure
3. Positive Endocervical margin after Conisation

INVASIVE LESIONS OF CERVIX

TREATMENT OPTIONS

- RT all stages.
- Surgery – Limited to stage Ia to stage IIa.
- 5yr survival rate stage I -85% RT/RH.
- Lesions >4cm needs postop.RT-
- Ovary metas.- 0.5% scc

  = 1.7%Adenocarcinoma.

SAME Rx – ALL HISTOLOGICAL TYPES

FACTORS INFLUENCING THE CHOICE OF TREATMENT OF CA CX

- Age
- Desire for fertility preservation
- Tumor size
- Stage
- Histology
- Evidence of lymph node metastasis
- Risk factors for complication of surgery
- Presence of other comorbidities
- Patient preference

TREATMENT MODALITIES

- STAGE IA1 Superficial invasive lesion <3mm

  Conisation-follow up- If margin +ve repeat conisation or hysterectomy.

  or

  Extra fascial hysterectomy (type I)
- Pelvic LN mets <1% so, no need for pelvic lymphadenectomy.

- Early stage IA2, IB1 ,IB2 and small IIA – (type II hysterectomy) modified radical hysterectomy (WERTHEIM'S) or Radiotherapy
- Locally advanced stage IB2 – IVA -concurrent chemo radiation
- Central recurrence after RT- Exenteration surgery
- Isolated pelvic recurrence after hysterectomy- radiotherapy

BASIC INVESTIGATIONS

- A detailed history and clinical examination
- Complete haemogram
- RFT
- LFT
- Chest X Ray
- USG abdomen and pelvis
- CT abdomen and pelvis
- Cervix biopsy to confirm the diagnosis

TREATMENT of superficially invasive Ca cervix (microinvasive disease) Stage IA1& IA2

- Stage IA1 without LVSI- therapeutic conization if cone margin negative
- With LVSI- Radical Trachelectomy or Type-II Hysterectomy with BPLN Dissection.

Stage IA2

- Stromal invasion - 3-5mm
- Nodal involvement - 5%
- Modified radical hysterectomy with BPLN Dissection/Radical Trachelectomy.
- Lesion<2cm , no LVSI , Negative nodes—Ideal for Radical Trachelectomy.
- Complications – ABORTION , PREMATURITY , PTL .

STAGE IB1 , IB2 AND IIA

- Radical hysterectomy with bilateral pelvic lymphadenectomy
- To destroy malignant cells in the cervix, paracervical tissues and regional lymph nodes
- High risk features benefit from post op RT or chemoradiation

For Stage IB2 disease
Treatment modalities

a. Radical surgery **alone**

b. NACT-(Cisplatin40mg/cycle+5 FU 500mg/cycle) for 4 cycles pre op + Radical surgery

c. Concurrent chemoradiation

d. Preop RT followed by RH

TYPES OF HYSTERECTOMY (RUTLEDGE CLASSIFICATION)

- CLASS 1-Extrafacial hysterectomy
- CLASSII-Modified radical hysterectomy (Werthiems). Uterus, paracervical tissues, upper vagina1-2cm
- Medial half of parametrium &proximal uterosacrals resection

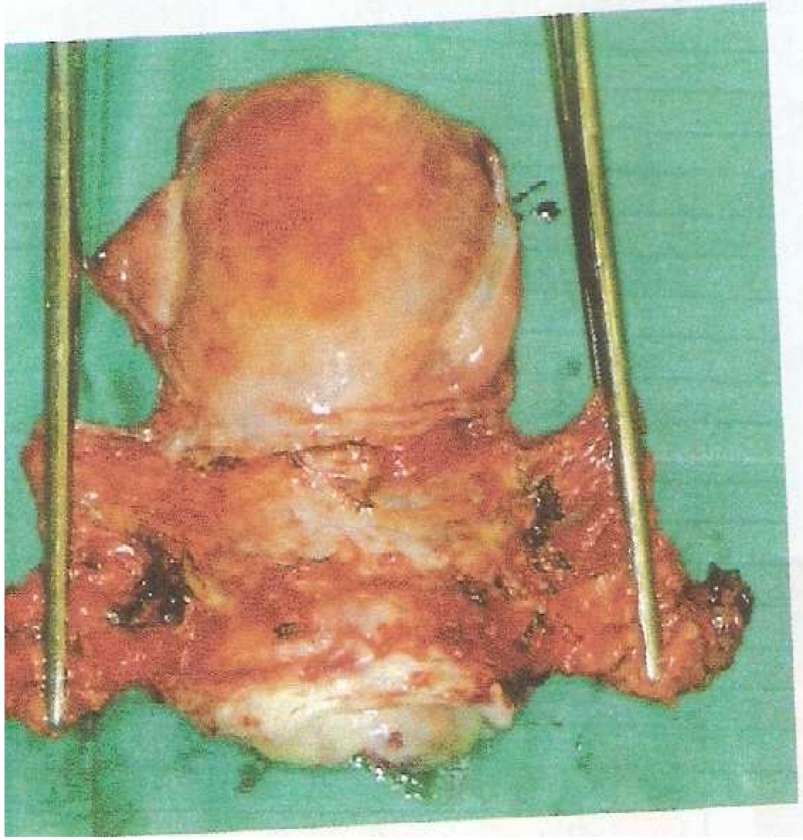
- TYPE III –RH Enbloc removal of uterus, upper1/3 vagina, paravaginal & paracervical tissues.
- Bilateral resection of parametrium upto pelvic sidewall.
- Removal of as much uterosacrals as possible.
- TYPE IV-Extended RH
- TYPE V- Partial Exenteration.

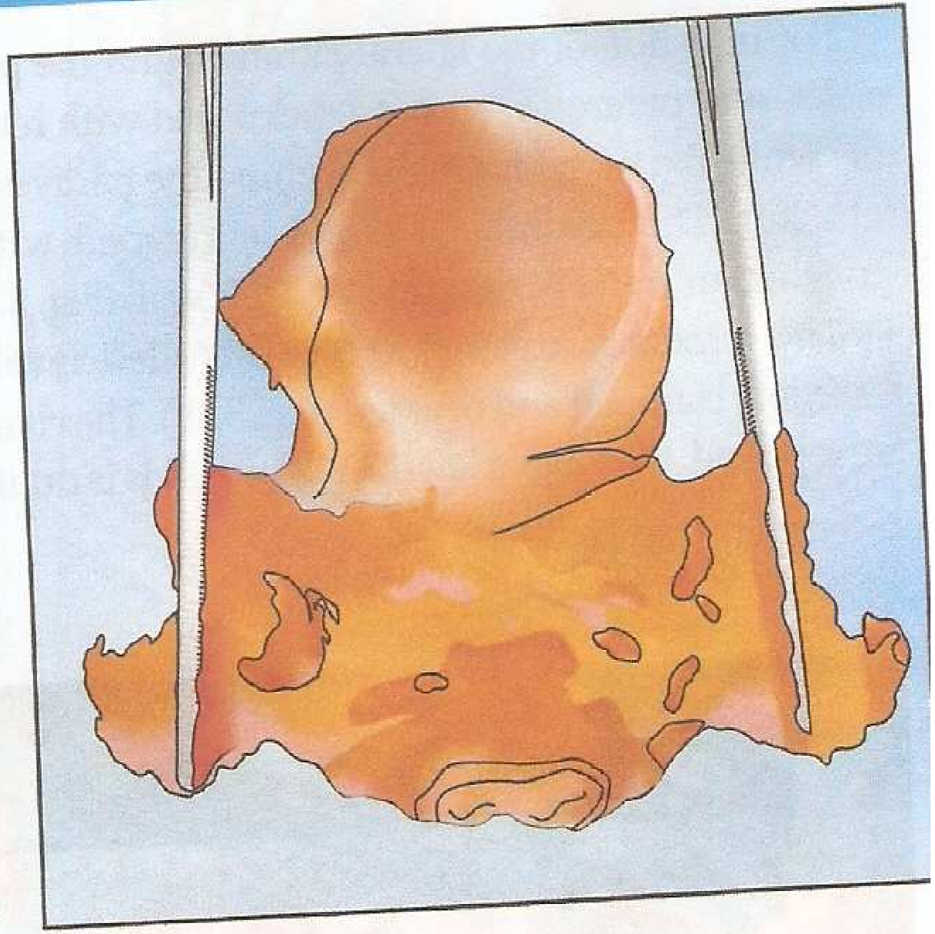
SALIENT STEPS OF WERTHIEMS HYSTERECTOMY

- Division of round ligaments & infundibulo pelvic ligaments.
- Dissection of paravesical space
- Isolating &dissecting the ureters & dissection of para rectal space.
- Ligating uterine arteries at their origin.

- Dissecting ureteric tunnels & displacing ureters laterally
- Dissecting rectovaginal space
- Excising uterosacral ligaments & vaginal cuff.

Completing Bilateral pelvic lymphadenectomy.





parametria

COMPLICATIONS

Intraoperative and immediate post op complications

- Blood loss
- Uterovaginal 1-2%
- VVF <1%
- Pulmonary embolus 1-2%
- Small bowel obstruction 1-2%
- Fever- thromboembolism, cellulitis, UTI, wound infection.
- Lymphocyst formation

CONTRAINDICATIONS

- Severe heart disease: unstable angina,
  congestive cardiac failure,
  recent myocardial infarction.
- Severe pulmonary disease
- Active thrombotic disease
- Old age
- obesity

SURVIVAL RATE DEPENDS ON FOLLOWING FACTORS:

1. Lesion size (<2cm=90% . >4cm=40%.)
2. Depth of invasion (<1cm=90% . >1cm=63-78%)
3. Parametrial spread (-ve=95% . +ve=69%)
4. LVSI (Absent=95% . present=50-70%)- predictor of lymph node metastasis.
5. Lymphnodes-

pelvic nodes=65%.common iliac=25%

OTHER TYPES

- Vaginal radical hysterectomy & BPLN.
  Schouta mitra surgery.-UV prolapse and CA Cx
- Lap. assisted radical vaginal hysterectomy.
- Okabayashi's nerve sparing RH.

- Role of sentinel node evaluation.

CA CERVIX DURING PREGNANCY

CIN – Colposcopy – LSIL – PP 12 weeks

HSIL – PP 6 Weeks

If suspicious of invasion – colposcopy directed punch biopsy.

Cis-0.013% 1st AN visit- pap , colposcopy-biopsy-invasive lesion –conization (diag)->abortion 1st trim.-33%.

Tmt –differed till 12weeks after childbirth.

- INVASIVE LESION- RARE 0.5-5%

- Invasion < 3mm & no LVSI – Delivery – VH After 6 weeks
- Invasion 3-5 mm & LVSI – CS - RH
- StageIB1-classical CS – RH
- StageIB2-1st trim-RT-SPON.ABORTION.
  2nd trim. -delay for fetal maturity - - RT
- Stage II -IV- RT

SURGICAL M/M OVARIAN CANCER

WHAT CONSTITUTES HIGH RISK?

Risk increases with age after 40yrs. 15-16/100,000.

Peak rate of 57/100,000 in 70-74yrs of age.

High risk – Nulliparity

Hereditary breast/ovarian cancer syndrome

HNPCC

BRCA1 & BRCA2-mainly breast cancer but also to ovarian cancer

Familial ovarian cancer (2 or more affected. 1st or 2nd degree relatives with epithelial ovarian cancer)

MANAGEMENT OF EARLY STAGE EOC
(FIGO stage I & II)

What is the rationale of primary cytoreductive surgery on patients with suspected ovarian cancer?

1. Diagnosis
2. Staging
3. Palliation
4. Cytoreduction

- The FIGO stage is a major prognostic factor so exact surgicopathological assessment of spread of disease is important for counseling the patient regarding her prognosis and choosing the adjuvant therapy. Palliation of symptoms like pain, nausea and vomiting and improved nutritional status

WHAT ARE THE GUIDELINES FOR SURGICAL STAGING?

1. Vertical abdominal incision- enlarged supraumblical
2. Ascites- for cytology

   If no ascites- peritoneal washings with 100-150 ml of saline solution.
3. Abdominal organs are inspected.

   Entire peritoneal surface of the abdominal wall from pelvis to diaphragm-palpated for tumor implants.

4. Resection of primary ovarian cancer- TAH with BSO.
5. Infracolic omentectomy- as a staging procedure and as a part of surgical therapy.

Omental involvement- 5%

If the tumor implants in the omentum- total omentectomy

WHAT IS THE RATIONALE OF OMENTECTOMY?

1. Greater omentum is the most common site of metastasis & greater omentectomy is done.

2. Omental cake contributes significantly to ascites. Its improves patients nutritional status in advanced disease.

3. Omental tumor excision is an important aspect of cytoreduction and increases the response to CT.

4. Omentectomy reactivates the host's immune mechanism

6. Biopsies of pelvic peritoneum and abd peritoneum including paracolic gutters and diaphragmatic surface.

7. Appendicectomy controversial

   Mucinous tumors-8% of appendix involved

   It can be the only site of extra ovarian spread in patients with EOC

   Metastasis to appendix- 21% stage III, 50% stage IV.

8. Stage 1: lymphatic spread 5-20%.

   Lymphadenectomy- not of prognostic value. Hence not done as a routine.

ADJUVANT CHEMOTHERAPY

Stage IA or IB, G I- good prognosis

Stage IC or Grade 3, Stage II- Adjuvant CT

30-40% risk of recurrence

in 5yrs.

Stage IA or IB, Grade 3& IC & II- poor prognosis

6 cycles of Paclitaxel and Carboplatin

Should all improperly surgically staged patients be restaged.

BORDERLINE TUMORS

#Borderline tumors 5-15% of all epithelial tumors.

55% - mucinous tumors.

Absence of stromal invasion- absolute criteria to make diagnosis

FIGO & NCI guidelines recommend that borderline tumors should be staged according to the FIGO classification.

Presence of implants (micro/invasive) is the single most risk factor at the time of diagnosis.

Fertility sparing surgery is an acceptable option in stage 1 disease.

MANAGEMENT OF ADVANCED DISEASE(Stage III &IV)

What is Interval cytoreductive surgery and when is it used? (IDS)

IDS after 3 cycles of chemotherapy is a management option for patients with advanced ovarian cancer. Useful in

Patients who are not suitable for primary cytoreductive surgery, going in for poor performance status, medical co morbidities or extent of disease.

Patients who underwent primary cytoreductive surgery with suboptimal cytoreduction.

WHAT IS OPTIMAL AND SUBOPTIMAL DEBULKING SURGERY?

- Optimal : <1cm of tumor residual volume
- Suboptimal: >1cm of residual tumor volume

WHAT IS THE SELECTION CRITERIA FOR IDS?

For stage III & IV patients with >2cm residual disease – optimal debulking surgery is achieved in 64-83%.

It is based on the response to chemotherapy preoperatively.

Overall and progression free survival is significantly increased after IDS.

PLAN OF MANAGEMENT FOR STAGE III&IV

3 cycles of NACT → interval debulking surgery→3 cycles of adjuvant chemotherapy

Pelvic and para-aortic lymhadenectomy is indicated in all cases of advanced ovarian malignancies.

WHAT IS THE CRITERIA FOR SECONDARY CYTOREDUCTIVE SURGERY?

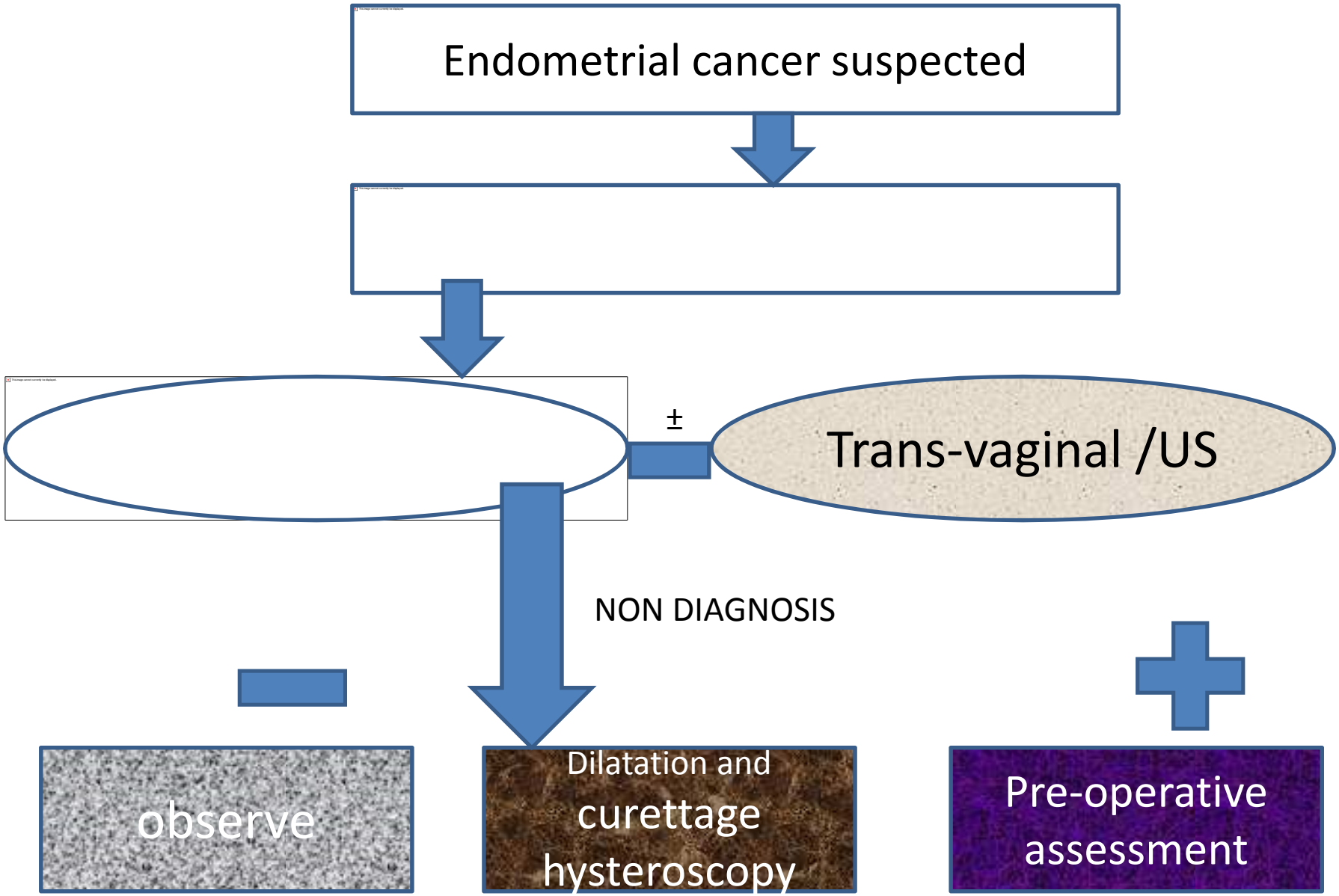
Recurrent ovarian cancer- completion of primary surgery and chemotherapy with clinical, radiological and serological disease free interval of 6 months.

Rising Ca125 levels.

Absence of hepatic extra-abdominal metastasis.

Patients performance status <4

SURGICAL MANAGEMENT OF ENDOMETRIAL CARCINOMA

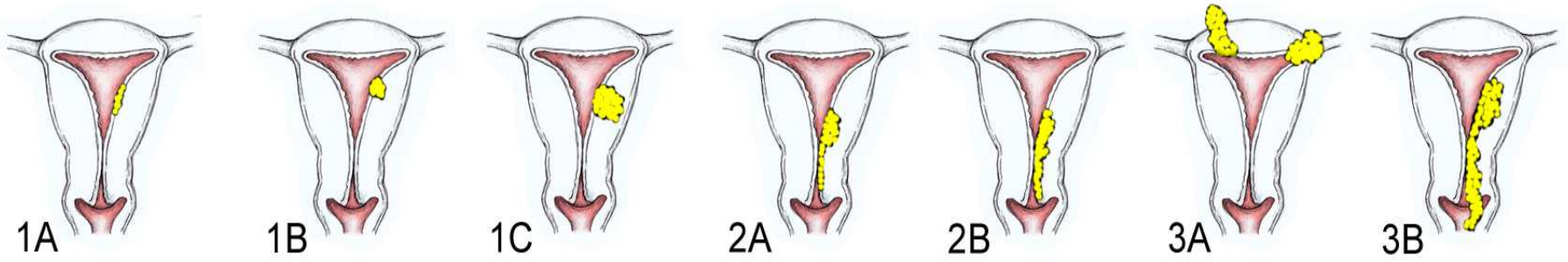


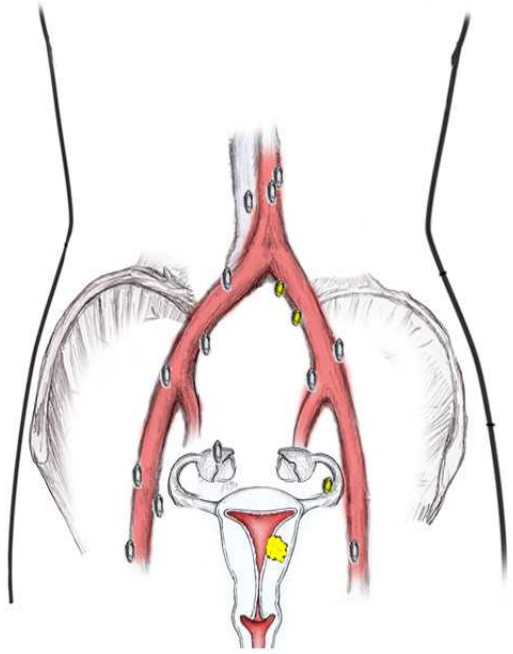
Diagnosis of endometrial cancer

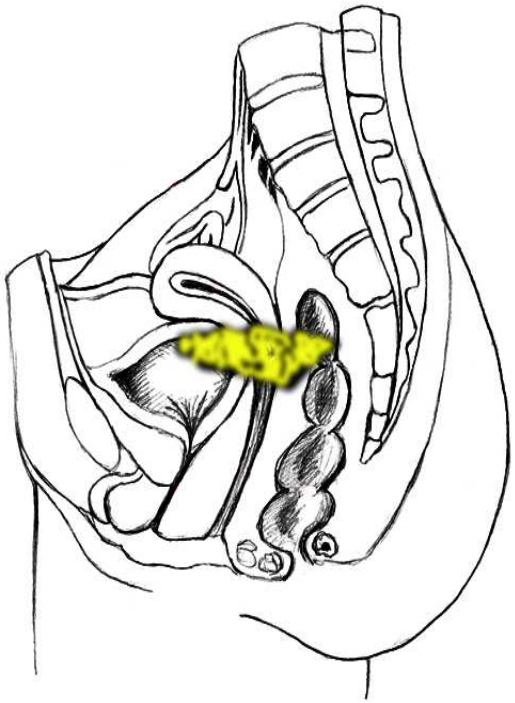
FIGO 2008	TNM	staging	2009	
group	T	N	M	Description
1A	T1a	0	0	Limited to endometrial or invades >1/2 of myometrium
1B	T1b	0	0	Invades ½ or more of the myometrium
11	T2	0	0	Invades cervical stromal tissue but not beyond uterus
111A	T3a	0	0	Involve serosa and /or adnexa
111B	T3b			Vaginal involvement or parametrial involvement
111C1	T1-3	1	0	Metastasis to pelvic LNs
111C2	T1-3	2	0	metastasis to para aortic LNs
1VA	T4	any	0	Invade bladder mucosa or bowel mucosa
1VB	any	any	0	Distant metastasis

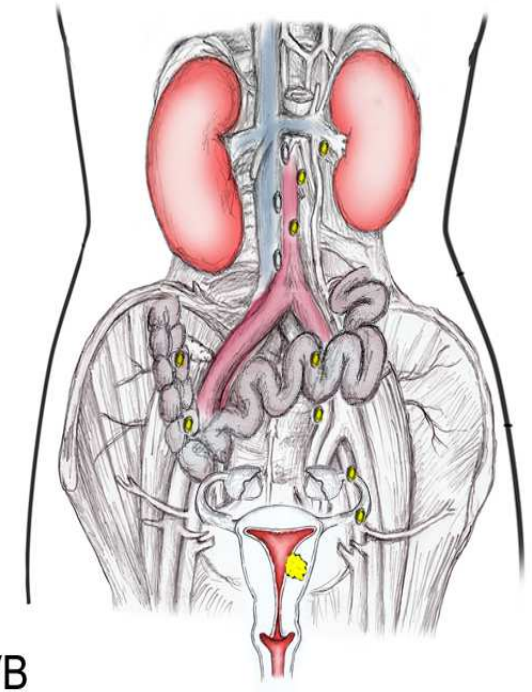
SURVIVAL RATE AT 5YREAS,BASED ON STAGE CLASSIFICATION

Extent of disease at diagnosis	5-yrs survival rate
Localized	96%
Regional	68%
Distant	24%
All stage	83%




3C


1VA


1VB

PROGNOSIS

Prognosis factors ;-survival strongly depend on the stage at diagnosis other factors include ;-

1) Advanced age associated with higher chance of recurrence
2) Higher grade;- associated with higher chance of recurrence .
3) Aggressive histology as clear cell adenocarcinoma,

Un differentiated papillary serous carcinoma are

Associated with worse prognosis

4) depth of myometrial invasion
5)lymph vascular space invasion

TREATMENT

The standard treatment is total extrafascial hysterectomy with bilateral salpingo-oophorectomy,peritoneal cytology and pelvic / Para-aortic lymph nodes dissection traditionally done through vertical midline incision laparoscopic tech-

Has recently been used . Depending on the pathological

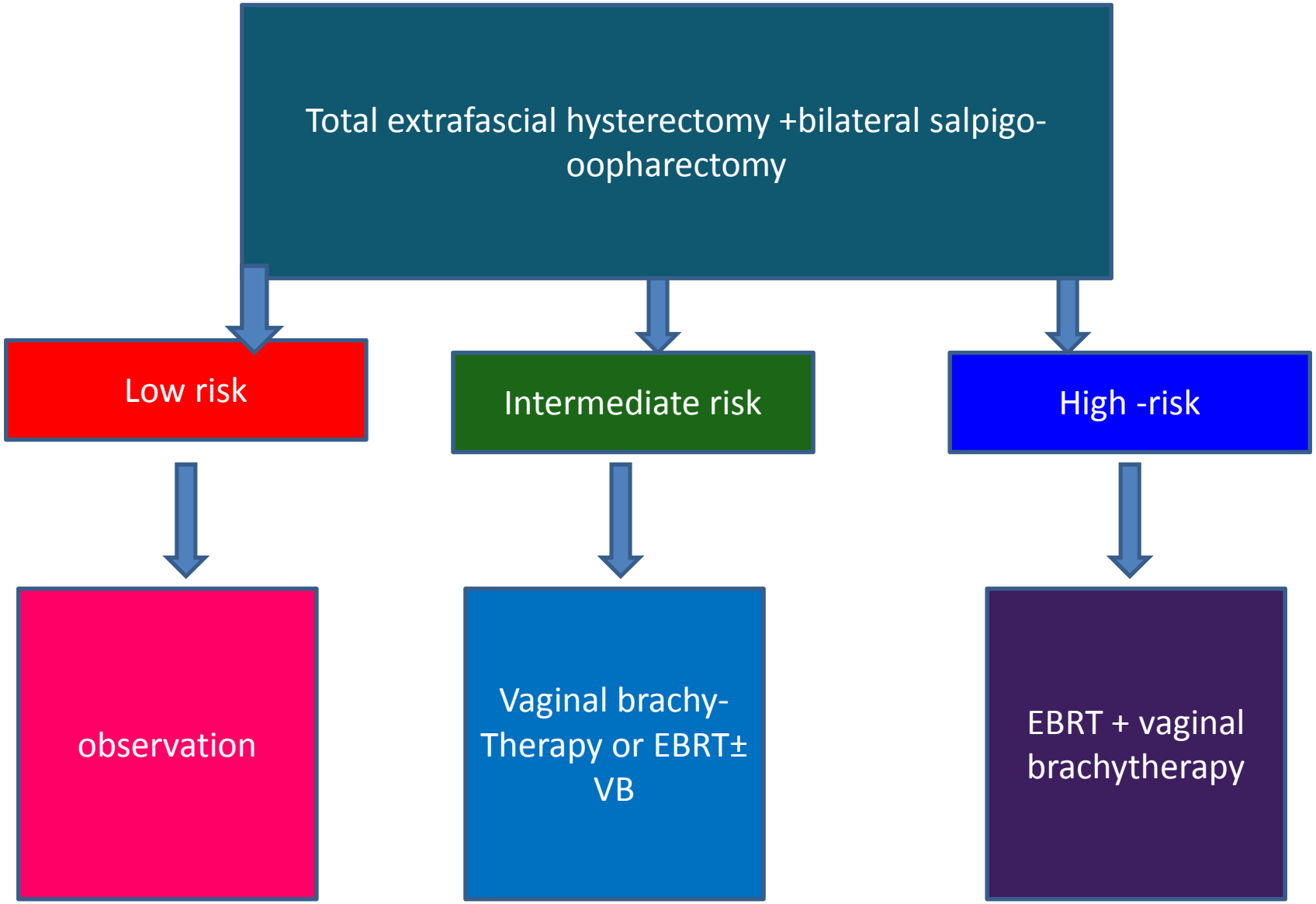
Data .high risk patients (↑rate of local recurrence) adjuvant radiation therapy will recommended to these patients .

Systemic therapy is used inlocoregional advanced/

Recurrence or metastatic disease

TREATMENT OF EARLY STAGE ENDOMETRIAL CANCER

1ry treatment is surgical resection, then pathologic specimen is examined for risk factor to determined a patient risk of loco regional recurrence according to which determine adjuvant therapy



Algorithm for treatment of early stage edometrial cancer

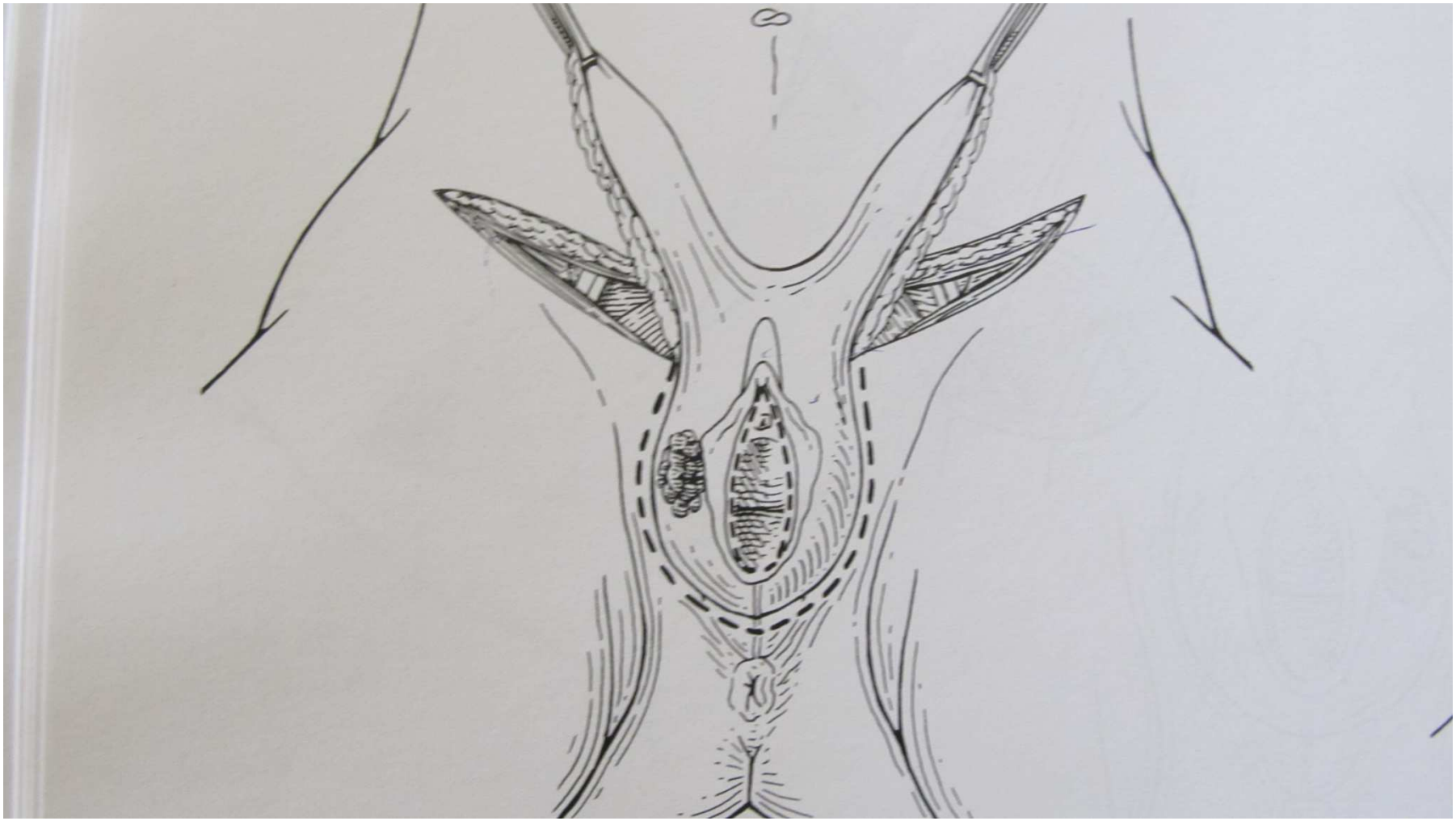
Locoregionally advanced endometrial cancer;-

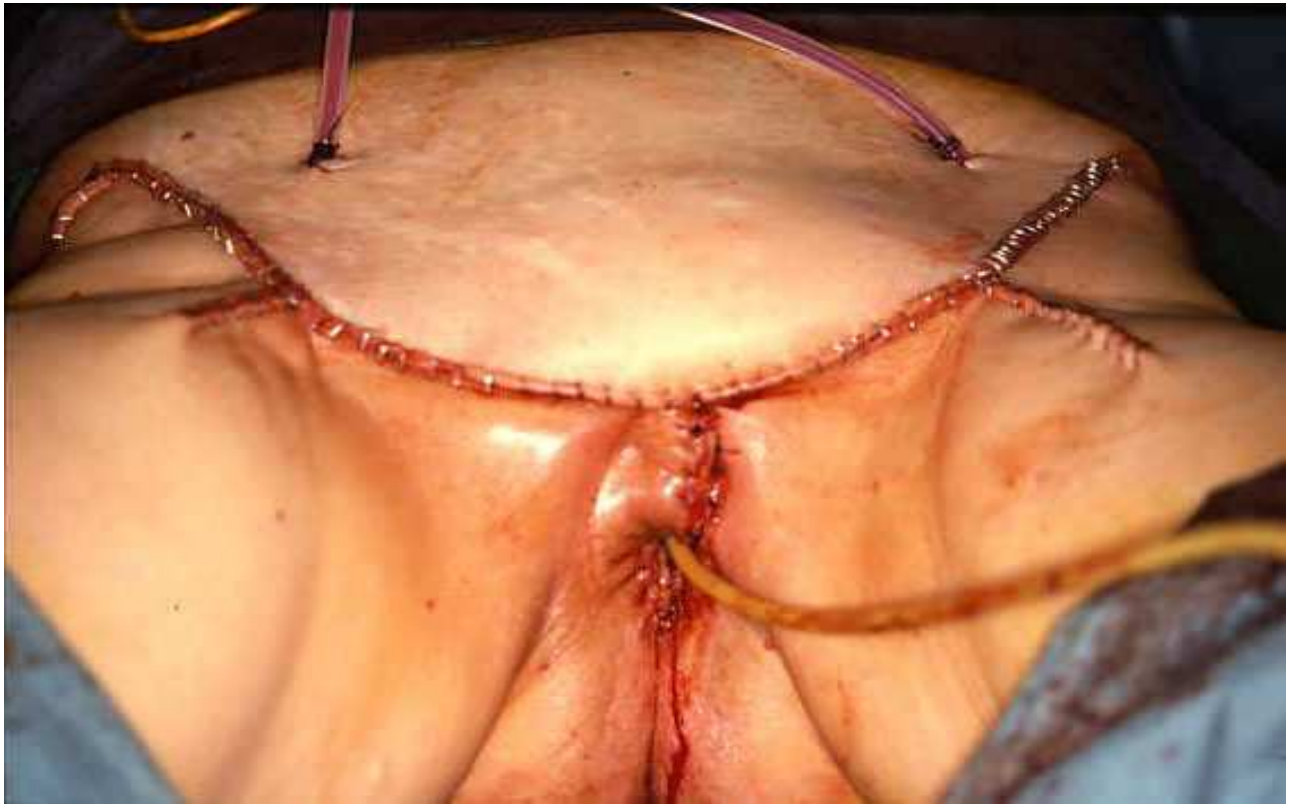
These patients usually treated by surgery followed by Adjuvant radiation. Para-aortic irradiation incase where Pelvic or para aortic LNs +ve.vaginal brachytherapy is Often is added due to ↑ risk of vaginal cuff recurrence.

SURGICAL MANAGEMENT OF VULVAL MALIGNANCY

- *Standard treatment in the past* : Radical vulvectomy and en bloc groin dissection (Taussig and Way)

- Involves radical removal of the entire vulva, the mons pubis, the inguino-femoral lymph nodes, and often the pelvic lymph nodes.





- *Omission of the groin dissection* for patients with T_1 tumors and, <1 mm of stromal invasion .
- *Elimination of routine pelvic lymphadenectomy.*
- Investigation of *role of sentinel lymph node procedure* to eliminate requirement for complete inguino-femoral lymphadenectomy.
- The use of *separate incisions* for the groin dissection to improve wound healing

- *Omission of the contralateral groin dissection* in patients with lateral T_1 lesions and negative ipsilateral nodes
- The use of *preoperative radiation therapy* to obviate the need for exenteration in patients with advanced disease.
- The use of *postoperative radiation therapy* to decrease the incidence of groin recurrence in patients with multiple positive groin nodes

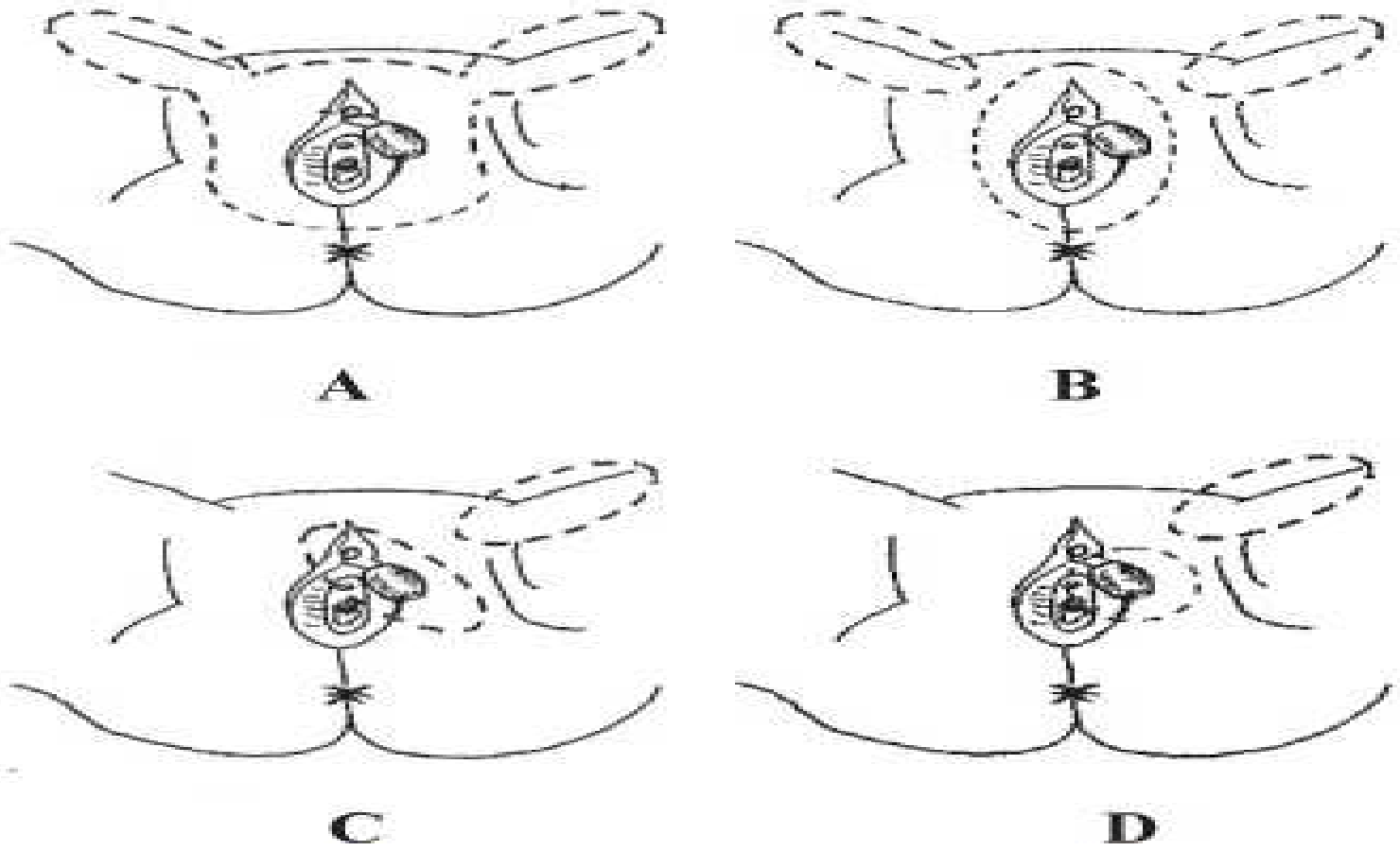
MODIFICATIONS IN MANAGEMENT OF THE VULVAR PHASE OF TREATMENT

- **Modified radical vulvectomy** - generally refers to radical removal of the portion of the vulva containing the tumor
  - *AIM: to obtain 2cm skin margins while sparing of as much normal vulvar tissue as possible is less likely to produce sexual dysfunction and a sense of disfigurement*

- Chief concerns :
  - possibility of an increased risk of local recurrence and
  - later an increased risk of a second primary vulvar cancer

SURGERY	No. of Patients	Local recurrence
Modified Radical Vulvectomy	45	1 (2.2%)
Radical vulvectomy	45	2 (4.4%)

Hoffman MS, Roberts WS, Finan MA, Fiorica JV, Bryson SC, Ruffolo EH, Cavanagh D
Gynecol Oncol 1992 May;45(2):192-7



The evolution of surgical techniques in vulvar cancer. (A) Radical vulvectomy with en bloc dissection; (B) radical vulvectomy with triple incision; (C) modified radical vulvectomy; (D) clitoral-sparing modified radical vulvectomy

STAGE I Vulvar cancer

- Radical vulvectomy (5-year survival rates) >90%.
- Choice of treatment depends on various tumor and patient factors.

Micro-invasive lesions (<1 mm invasion)	Wide (5–10 mm) local excision
Lesions >2cm with <5mm invasion and clinically negative nodes	"Radical local excision" with complete unilateral lymphadenectomy

- "*At least 1cm grossly negative margin, without putting the skin under tension, should be obtained and extended to the level of inferior fascia of the urogenital diaphragm .*"

STAGE II Vulvar cancer

- Standard therapy : *Modified radical vulvectomy with bilateral inguinal and femoral lymphadenectomy*

(Target : tumor free margins of at least 1 cm)

- Adjuvant local radiation therapy may be indicated for surgical margins less than 8 mm, and particularly if the patient also has positive nodes

STAGE III Vulvar cancer

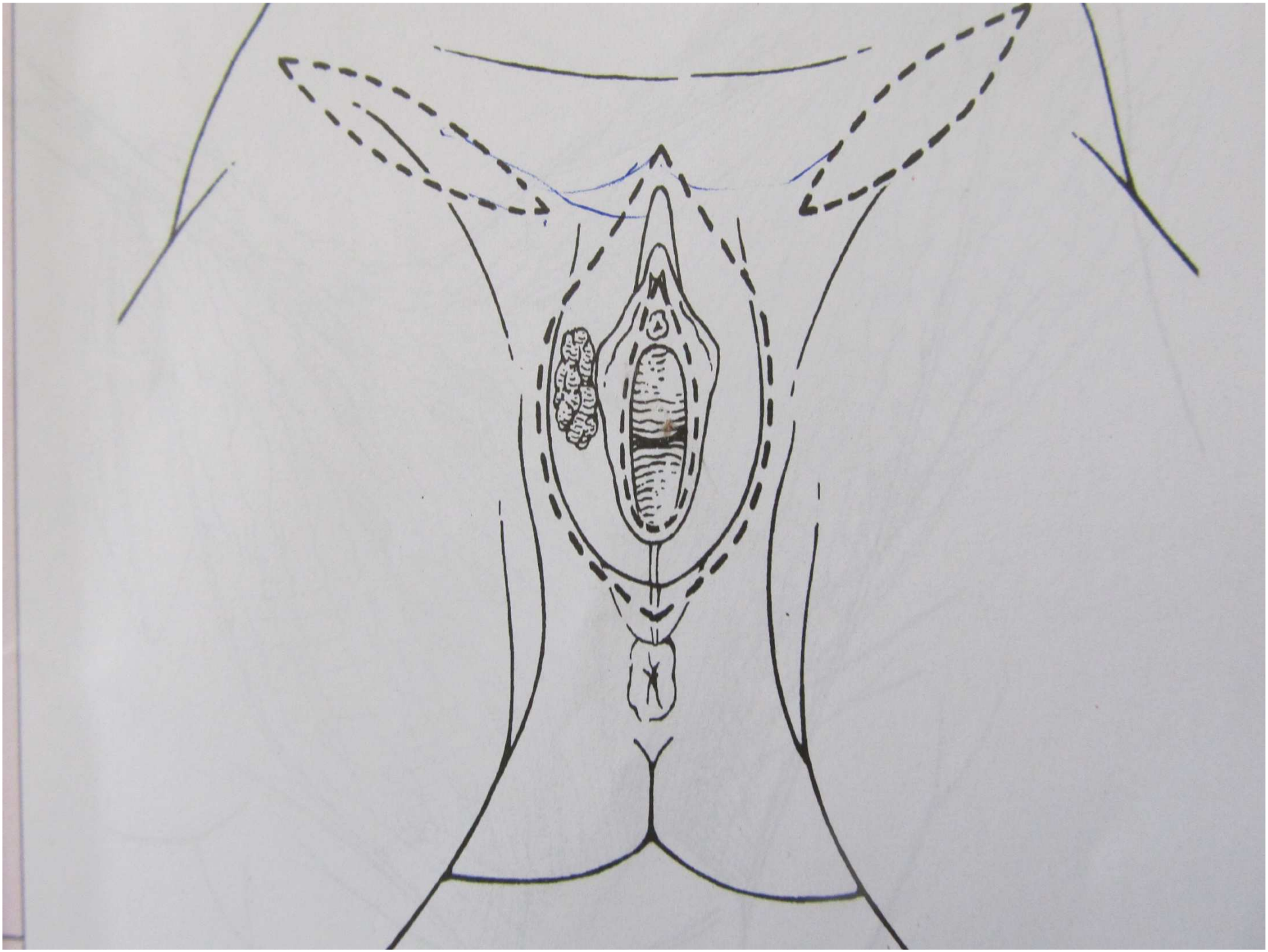
- Modified radical vulvectomy with inguinal and femoral node dissection.

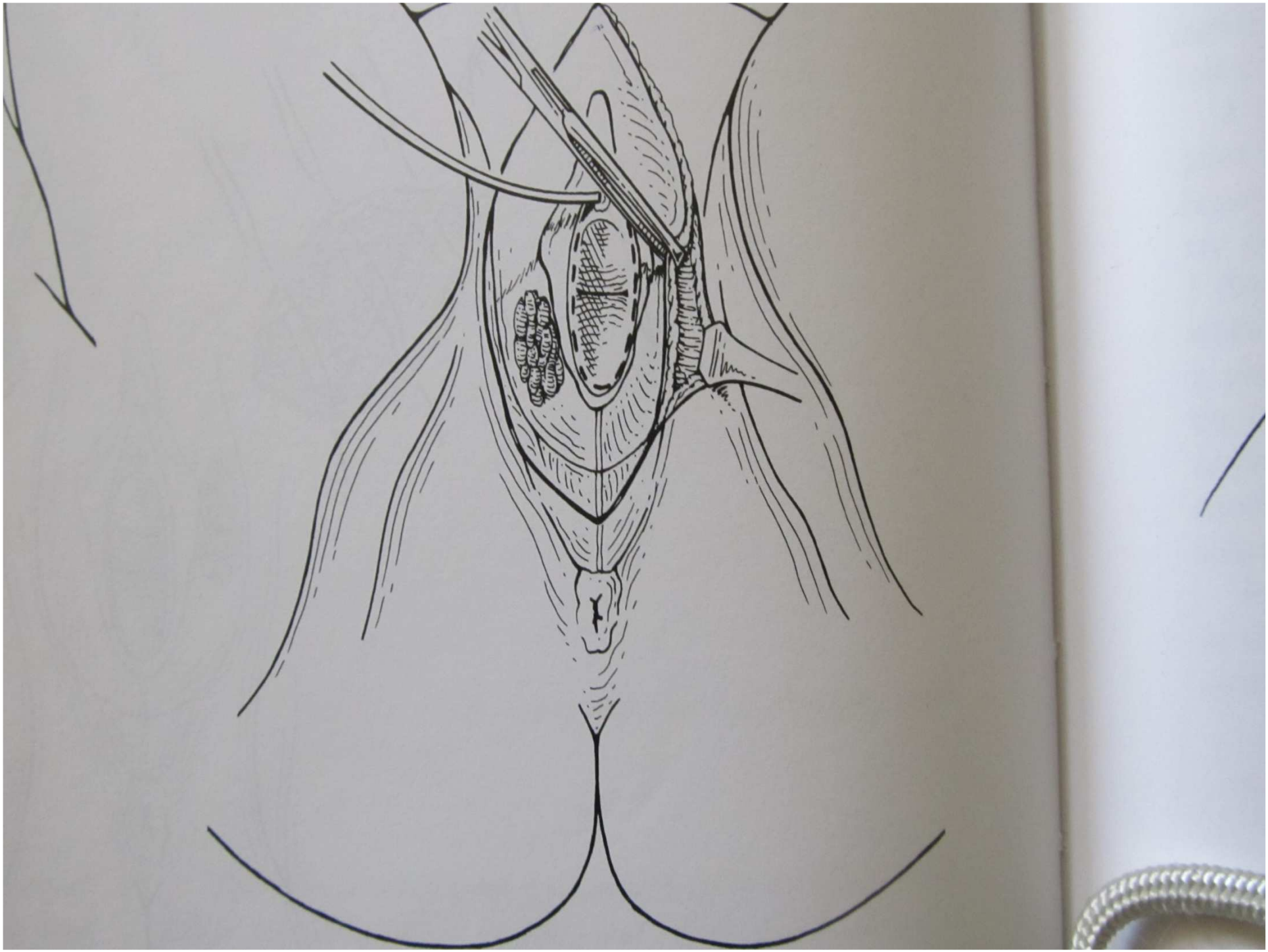
- Radical vulvectomy with inguinal and femoral node dissection
- followed by radiation therapy

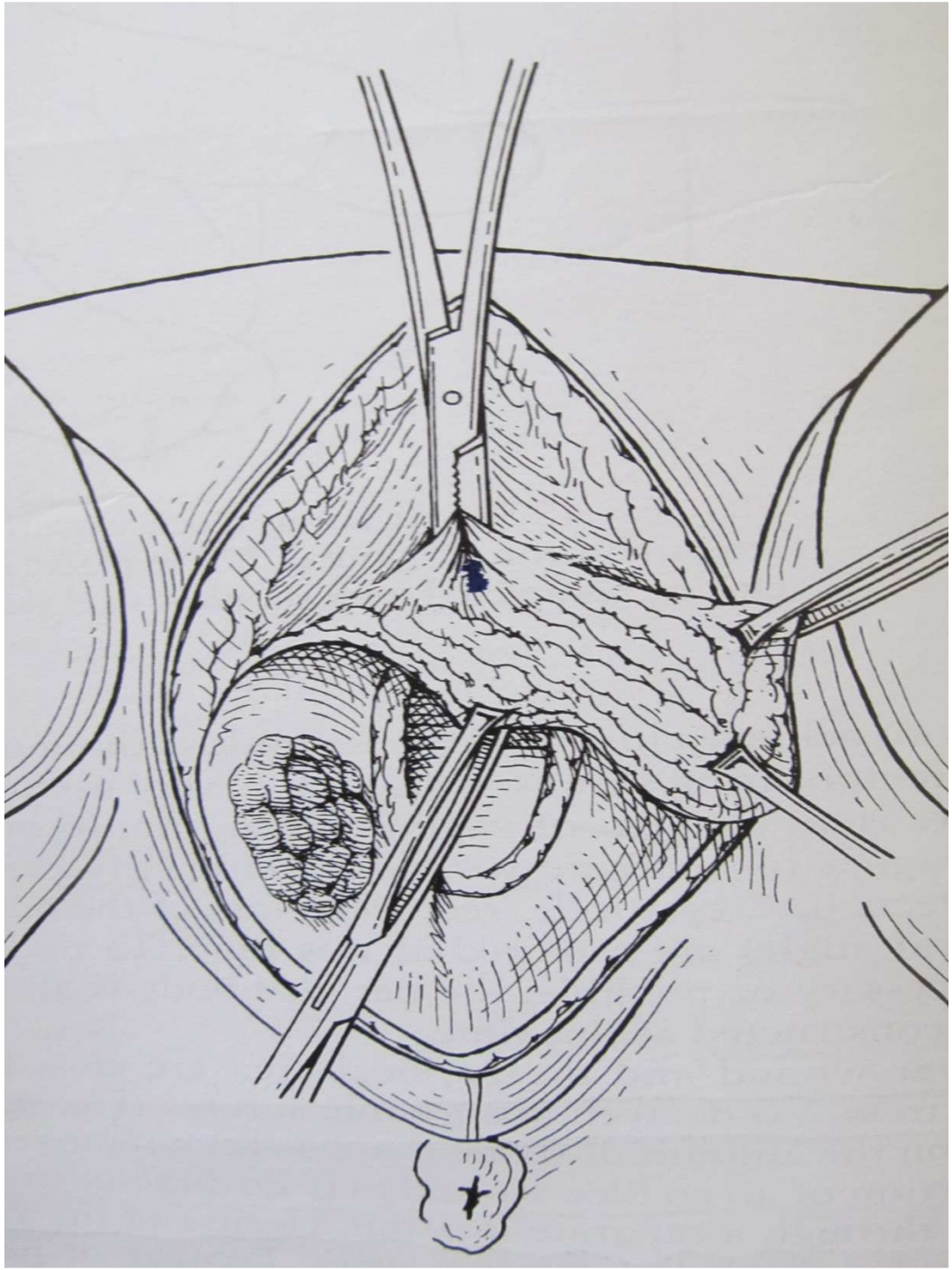
STAGE IV Vulvar cancer

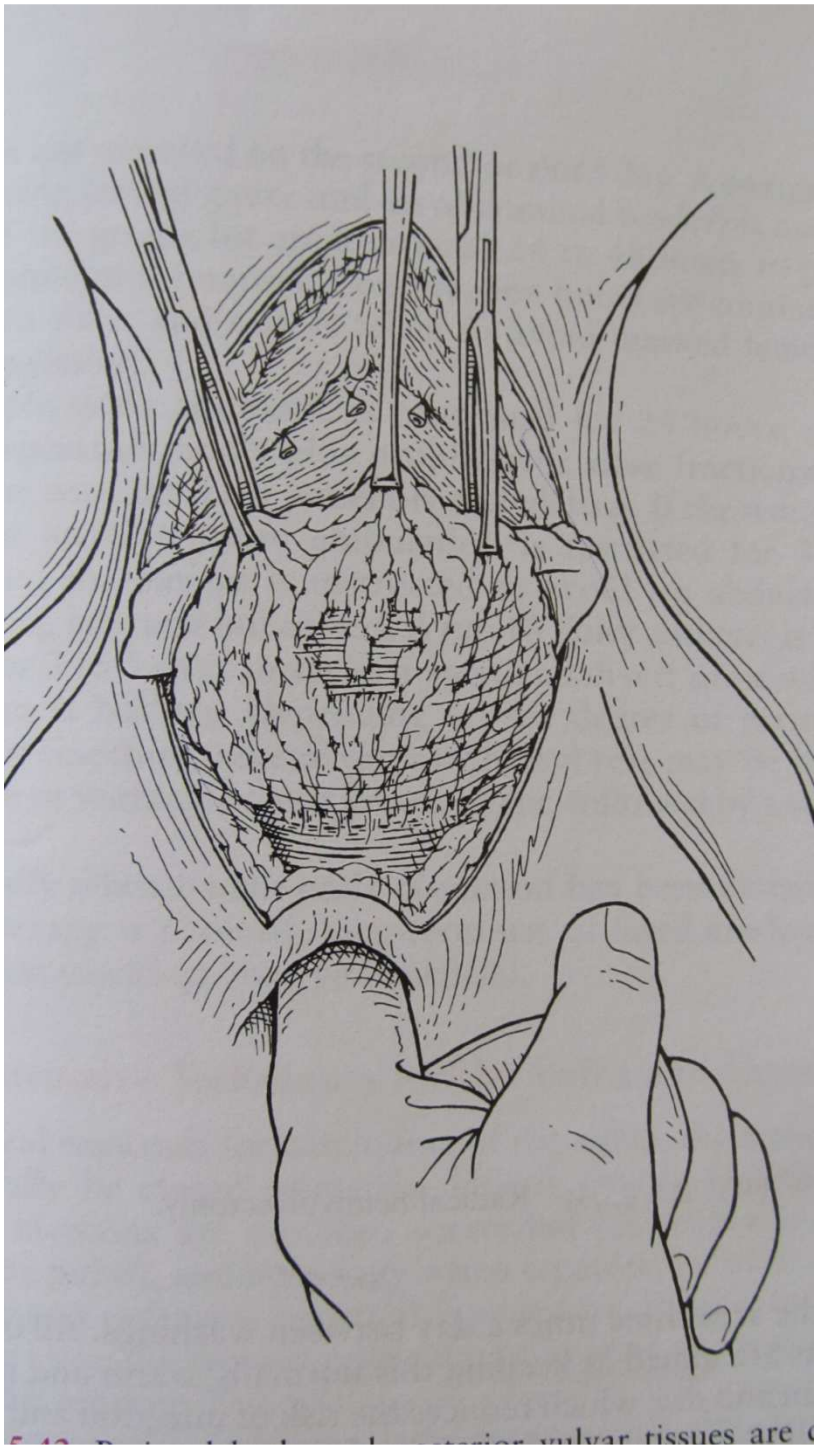
- Radical vulvectomy and pelvic exenteration (if resectable).

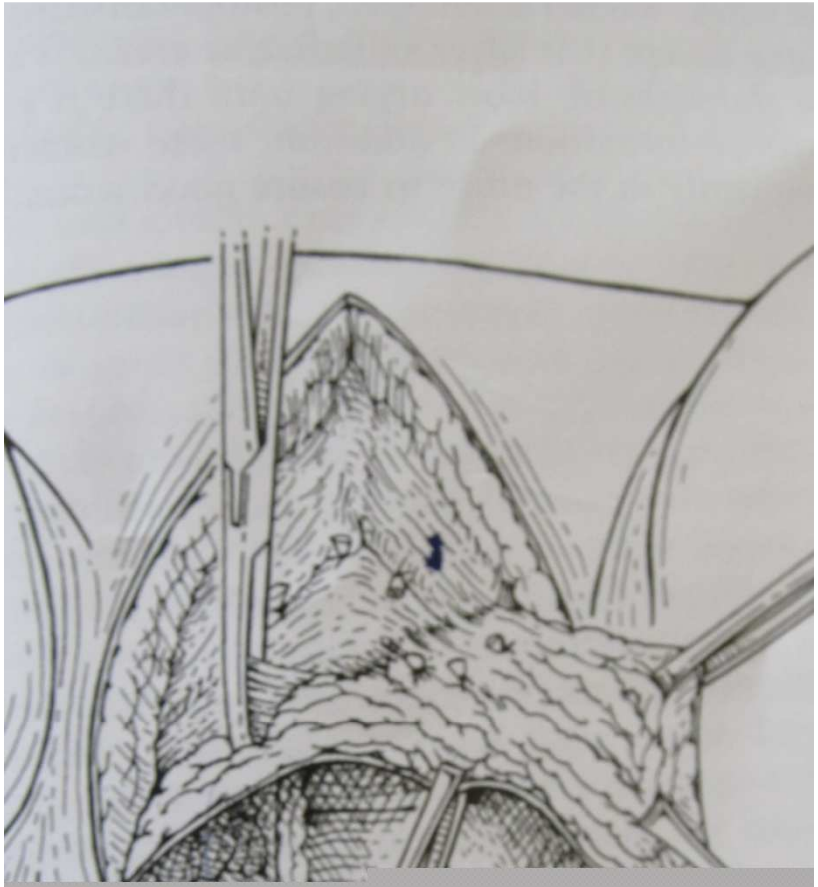
SURGICAL TECHNIQUE



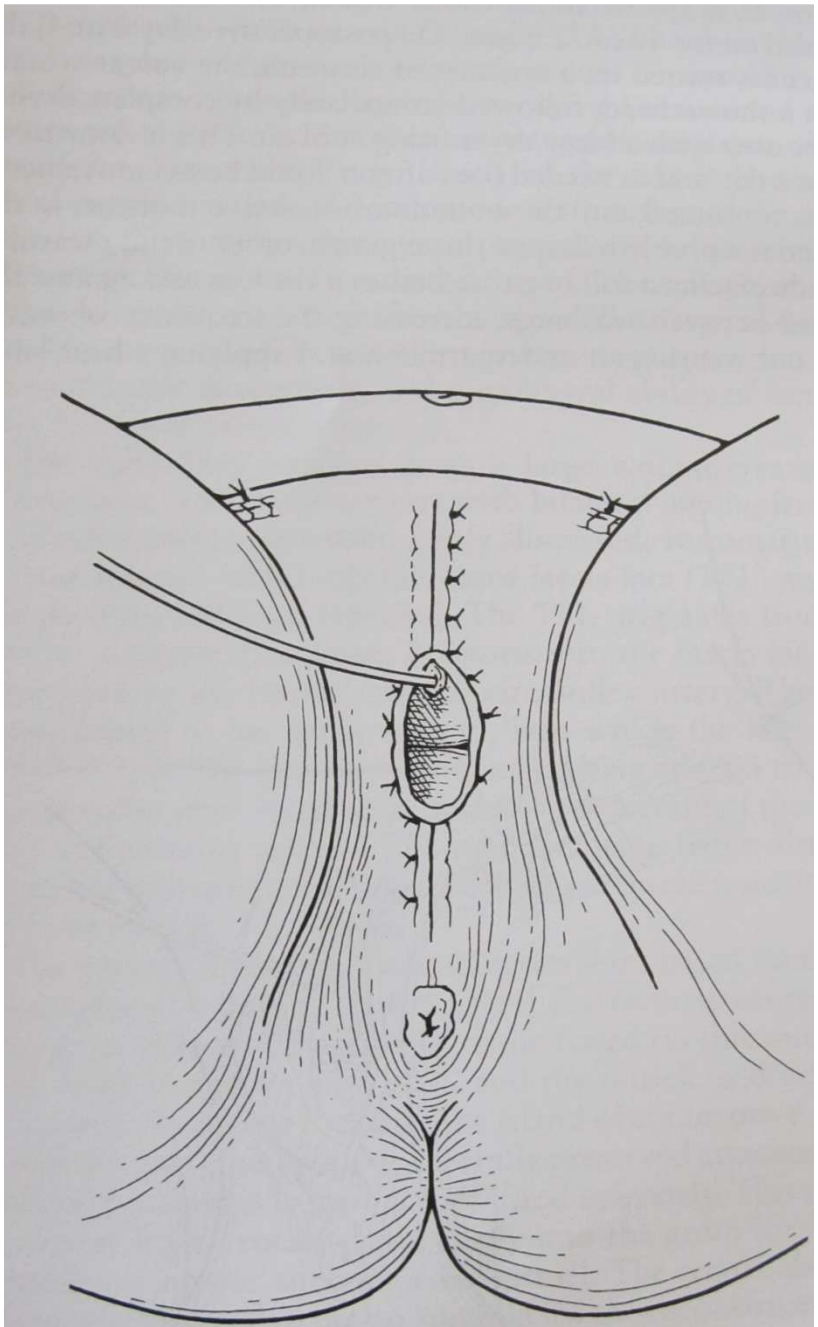




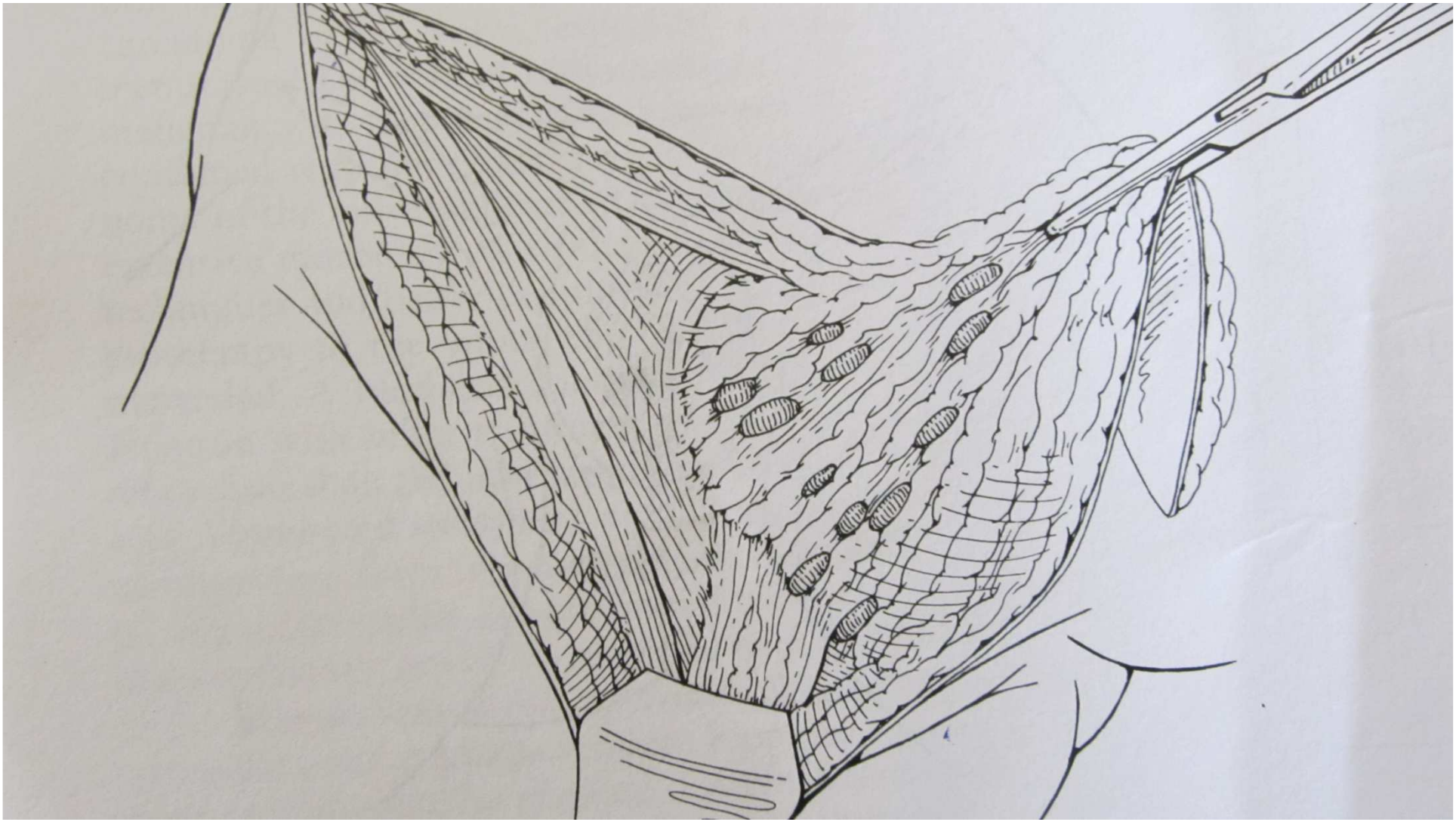


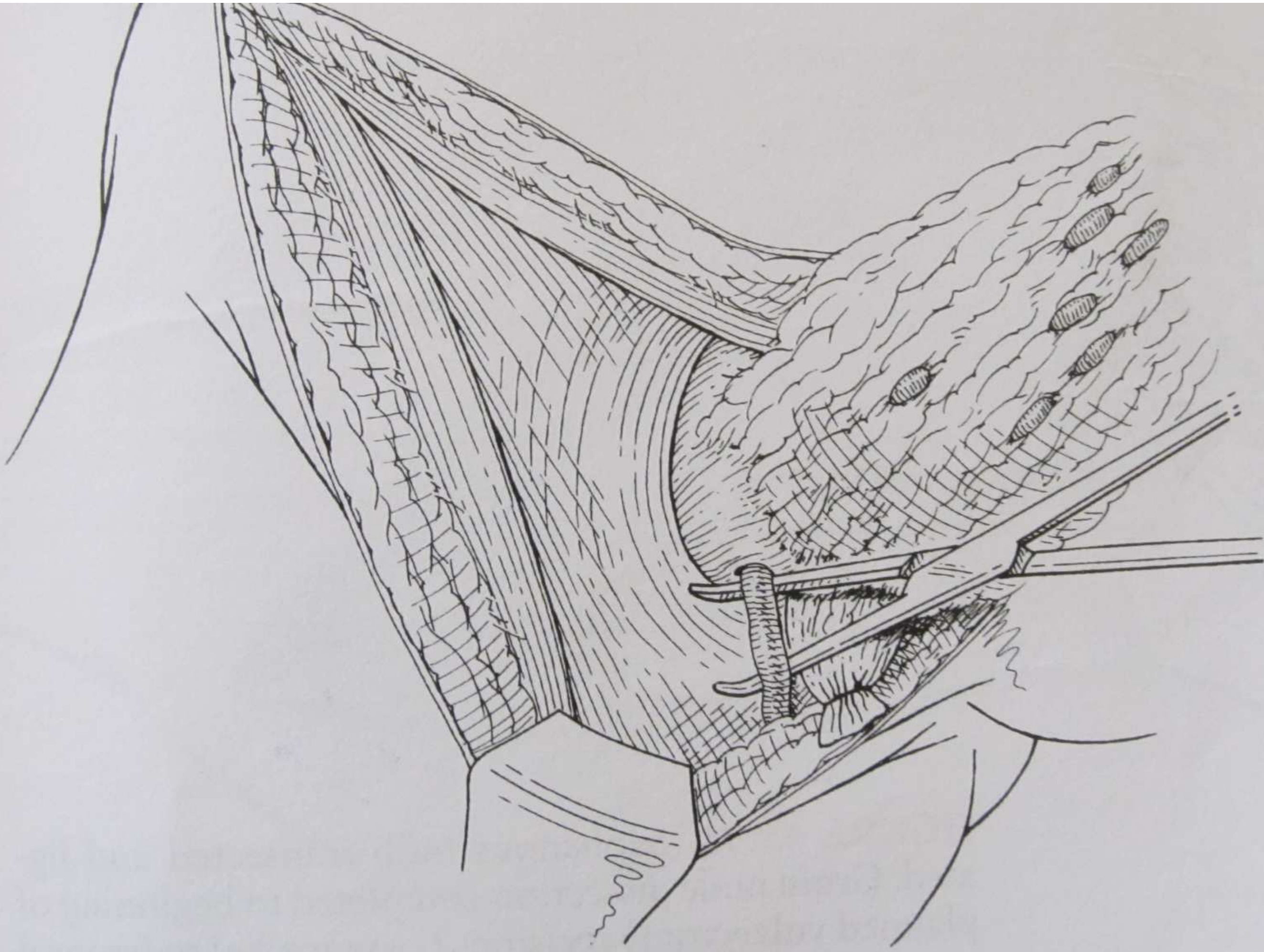



This image cannot currently be displayed.



GURE 45.45. Closure of the vulvar wound is completed.



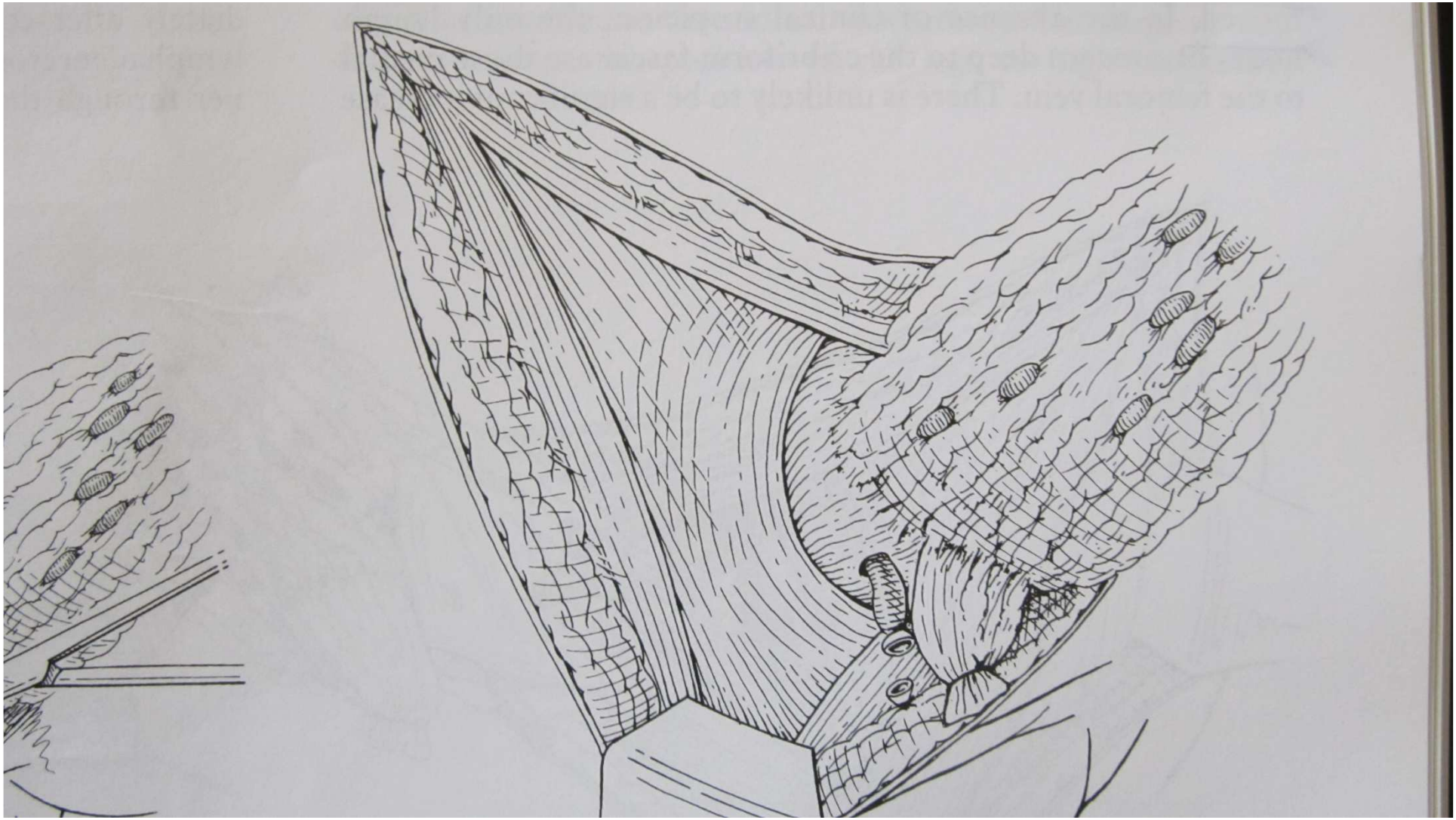


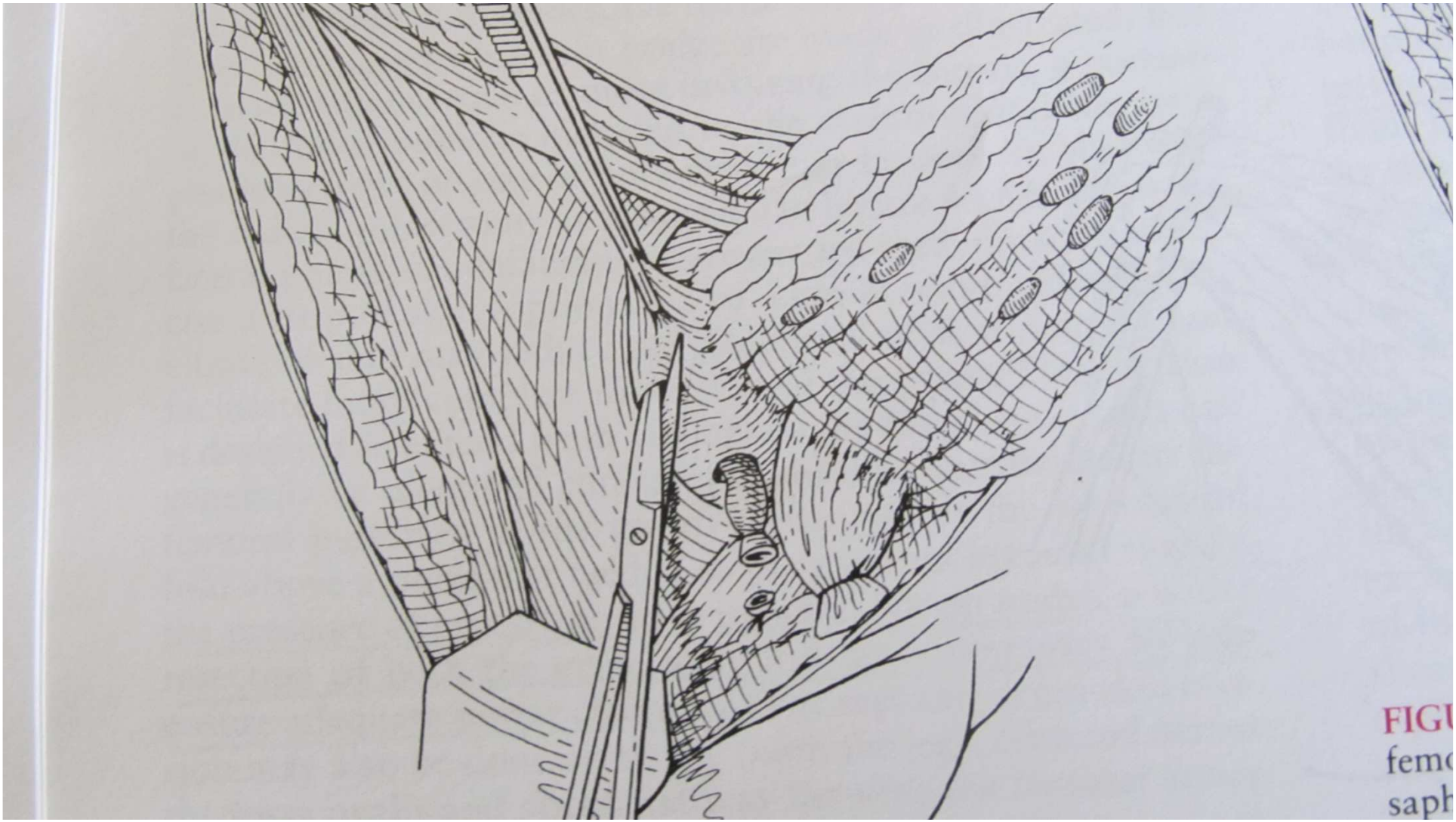
saphenous vein in groin is isolated.

FIGURE 45.28

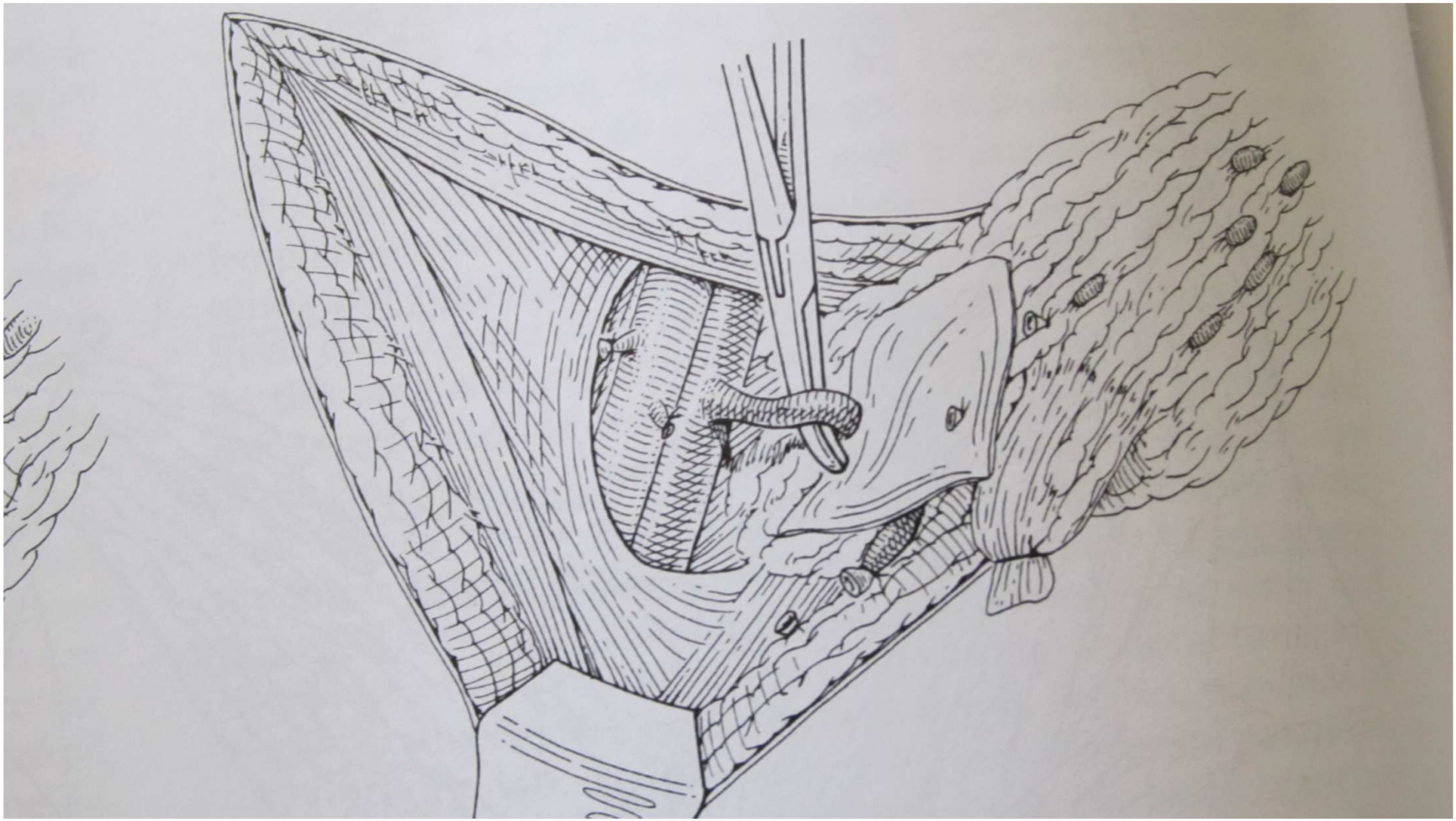
FIGURE 4

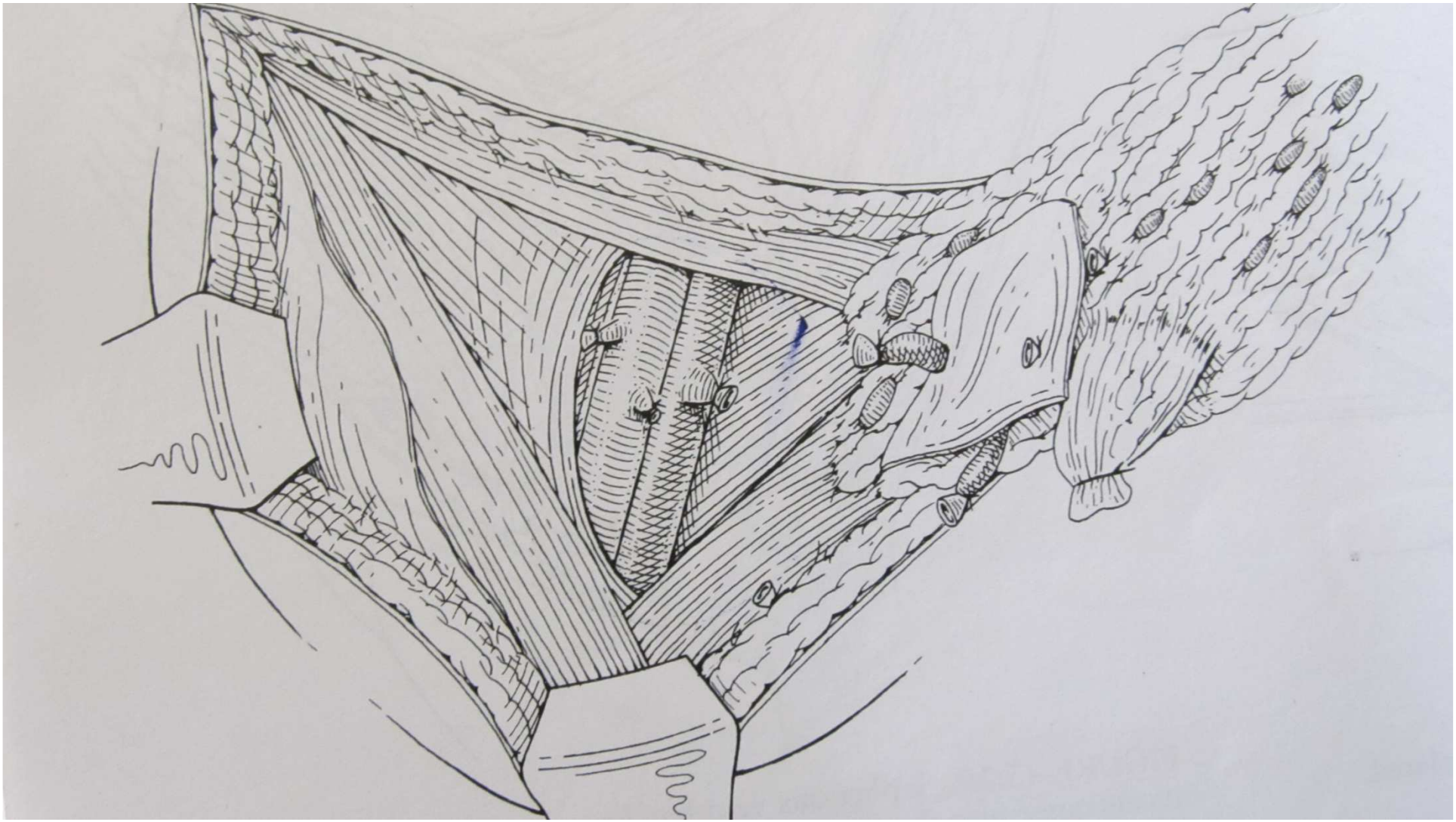
its entrance

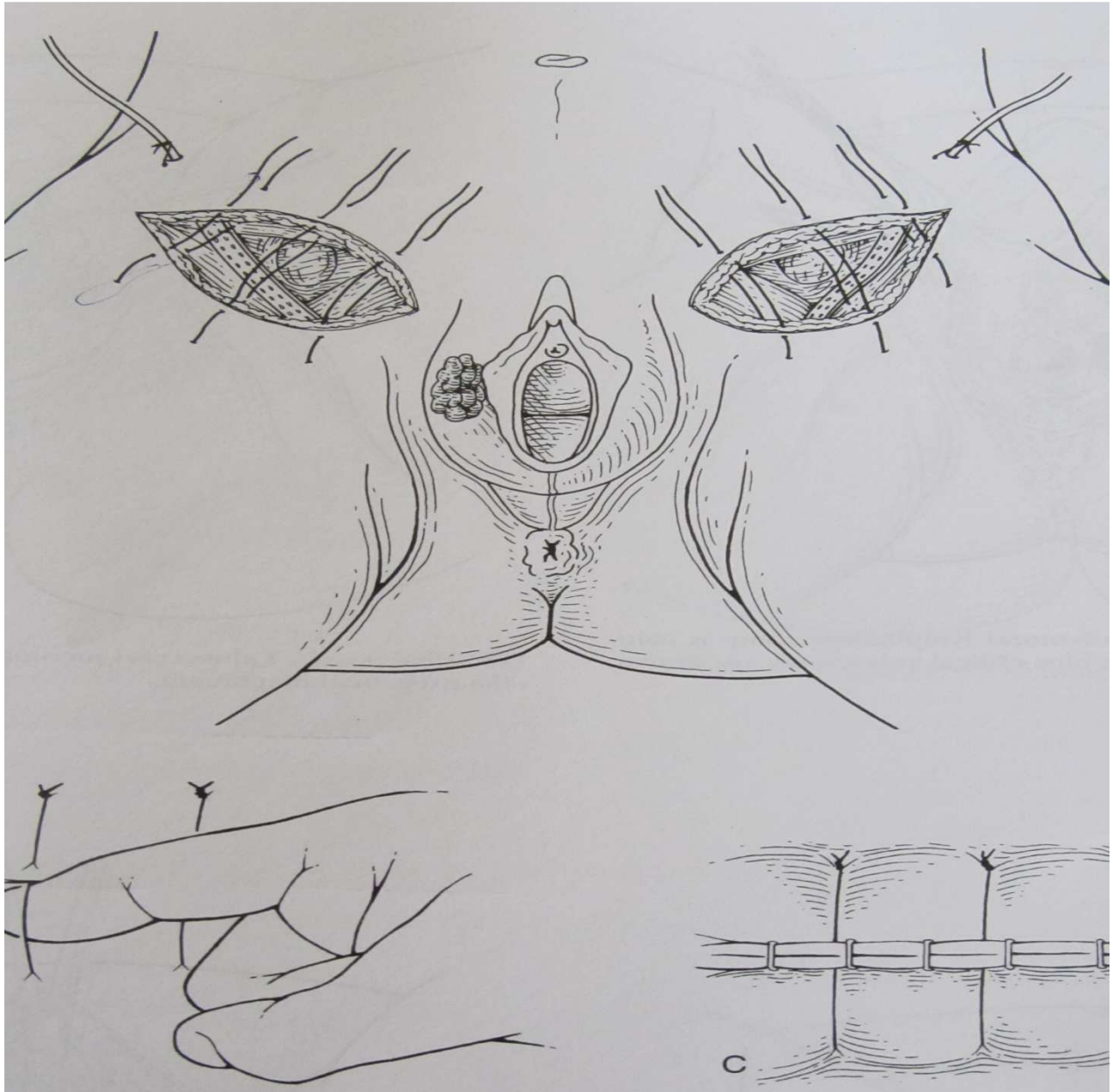




FIGU
femo
saph







37. **A:** Large block closure of groin wounds (separate in this case) with vert
ures. Note drains in place. **B:** The groin closure sutures are tied somewhat loos
leted with stainless steel skin staples.

of the wounds without tension above the urethra is also avoide

POST OPERATIVE COMPLICATIONS

EARLY COMPLICATIONS

- Wound infection
- Wound breakdown
  - Major break down occurs in about 14% patients
  - With separate incision approach – reduced to 44%
- Lymphocysts or groin seromas (10 – 15% cases)
  - small and asymptomatic - be left alone
  - Repeated aspirations until resolution is most commonly recommended

- Femoral nerve injury – anesthesia of anterior thigh (resolves slowly)
- Urinary tract infection
- Seroma of femoral triangle
- DVT, Pulmonary embolism , hemorrhage, osteitis pubis

LATE COMPLICATIONS

- Depression, altered body image, sexual dysfunction
  - major long term treatment complication
  - Associated with the extent of vulvar surgery
  - RX : modification of radical extent of surgery and preoperative and post operative counselling
- Chronic lymphedema (30%)
  - reported in 10-20% of women after groin node dissection
  - Can be a disabling problem
  - More common if radiation is required after groin dissection
  - Limiting groin node dissection in women with early cancers and preserving the saphenous vein decreases the incidence of this problem

Use of graduated compression stockings after lymphadenectomy can help prevent lymphedema

Mx :

- Intermittent limb elevation
- Manual lymphatic drainage(massage combined with bandaging)
- moderate exercise program
- carefully fitting compression stockings
- pneumatic compression devices

- Recurrent lymphangitis and cellulitis of leg (10%)
- Dyspareunia – due to Introital stenosis
- Urinary stress incontinence (with or without genital prolapse)
- Femoral hernia
- Pubic osteomyelitis
- Recto vaginal or recto perineal fistulas

Survival

Five – Year Survival with Vulvar carcinoma	
FIGO Stage	5- Year survival (%)
I	79
II	59
III	43
IV	13

Modified from FIGO Annual report on the results of treatment in Gynecological Cancer using 1994 FIGO staging classification

SURGICAL M/M OF VAGINAL CANCER

- The treatment of vaginal cancer in this guideline focuses on squamous cell and adenocarcinoma histologies and does not include the management of vaginal dysplasia or vaginal carcinoma in situ.

General principles of treatment

- There are no official treatment guidelines for vaginal cancer,
- The location of disease, the size of the lesion, and the clinical stage of the tumor should help guide treatment planning
- Stage I and II disease with squamous cell lesions at the apex or the upper posterior or lateral portions of the vagina may be treated surgically

- Definitive radiation therapy has largely replaced surgery as the primary therapeutic modality in vaginal cancer; because of anatomic constraints, achieving a wide negative surgical margin may not be possible without performing a radical surgical procedure such as exenteration
- External-beam radiation therapy (EBRT) is recommended in patients with stage I poorly differentiated tumors and deeply invasive lesions and in all patients with stage II-IV disease
- Surgical management that does not result in adequate margins mandates adjuvant radiation therapy
- Concurrent cisplatin-based chemotherapy should be considered in conjunction with radiation therapy

- *Surgery*
- Small lesions in the apex, the upper posterior portion, or the upper lateral third of the vagina can be treated with wide local excision. Bilateral pelvic lymph node dissection can be performed. Adjuvant radiation therapy should be used to treat margins that are positive or close to the resection bed.[2]
- *Intracavitary radiation therapy*
- Lesions in the middle and distal portions of the vagina are usually treated with radiation. Doses of 60-70 Gy are delivered to the entire vagina to a depth of 0.5 cm. An additional 20- to 30-Gy dose is delivered to the tumor bed.[3]

SURGICAL M/M OF FALLOPIAN TUBE CANCER

- Primary fallopian tube carcinoma (PFTC) is an uncommon tumor accounting for approximately 0.14%–1.8% of female genital malignancies
- It is estimated, based on the data obtained from nine population-based cancer registries in the U.S., that the average annual incidence of PFTC is 3.6 per million women per year

SURGICAL TREATMENT OF FALLOPIAN TUBE CANCER

- Surgery is the treatment of choice for PFTC. Surgical principles are the same as those used for ovarian cancer.
- Aggressive cytoreductive surgery with removal of as much tumor as possible is warranted in patients with advanced disease.
- It is impossible to achieve optimal debulking despite maximum effort IN SOME CASES

- **Second-Look Laparotomy**
- As in the case of EOC, second-look laparotomy does not have a role in the management of PFTC
- In EOC, second-look laparotomy has not been proven to be beneficial since 50% of patients with a surgical complete response still go on to relapseRecurrence was recorded for 22% of these 32 patients.
- Radiotherapy could possibly be considered either as adjuvant therapy for early-stage patients
- Although radiotherapy has been used traditionally in the past as an adjuvant therapy for PFTC,

- **Treatment recommendations for stage 1 disease (larger, deeper lesions > 2 cm or > 0.5 cm thick)**
- *Surgery*
- Radical hysterectomy and pelvic lymphadenectomy can be performed for lesions in the apex, the upper posterior portion, or the upper lateral third of the vagina. Radical vaginectomy is performed if the patient has previously undergone hysterectomy

- Skin grafting or reconstruction of a neovagina may be performed. For lesions located in the lower third of the vagina, vulvovaginectomy may be necessary to achieve negative margins. An inguinal-femoral lymphadenectomy should be
- Close or positive surgical margins should be treated with adjuvant radiation therapy

THANK YOU