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Complications of the SURGICAL treatment OF Cervical Cancer

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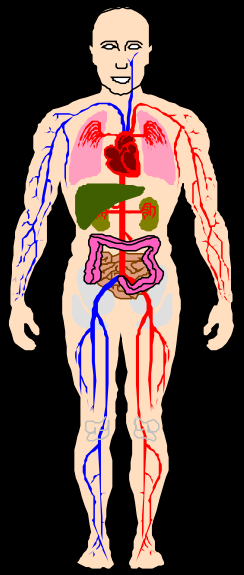
Cervical Cancer Treatment



1- Surgery

2- Radiation

Radical Hysterectomy:

- Removes corpus, cervix, parametria, upper third of vagina
- Uterine arteries divided at origin
- Ureters dissected through tunnel
- Uterosacral ligaments divided near rectum
- Typically combined with LND
- Oophorectomy not mandated

Radical hysterectomy
Class II extended hysterectomy is described as a modified

Remove more paracervical tissue while preserving most of the blood supply to the distal ureters and bladder

class II operation to be suitable for the following conditions:

1. microinvasive carcinomas

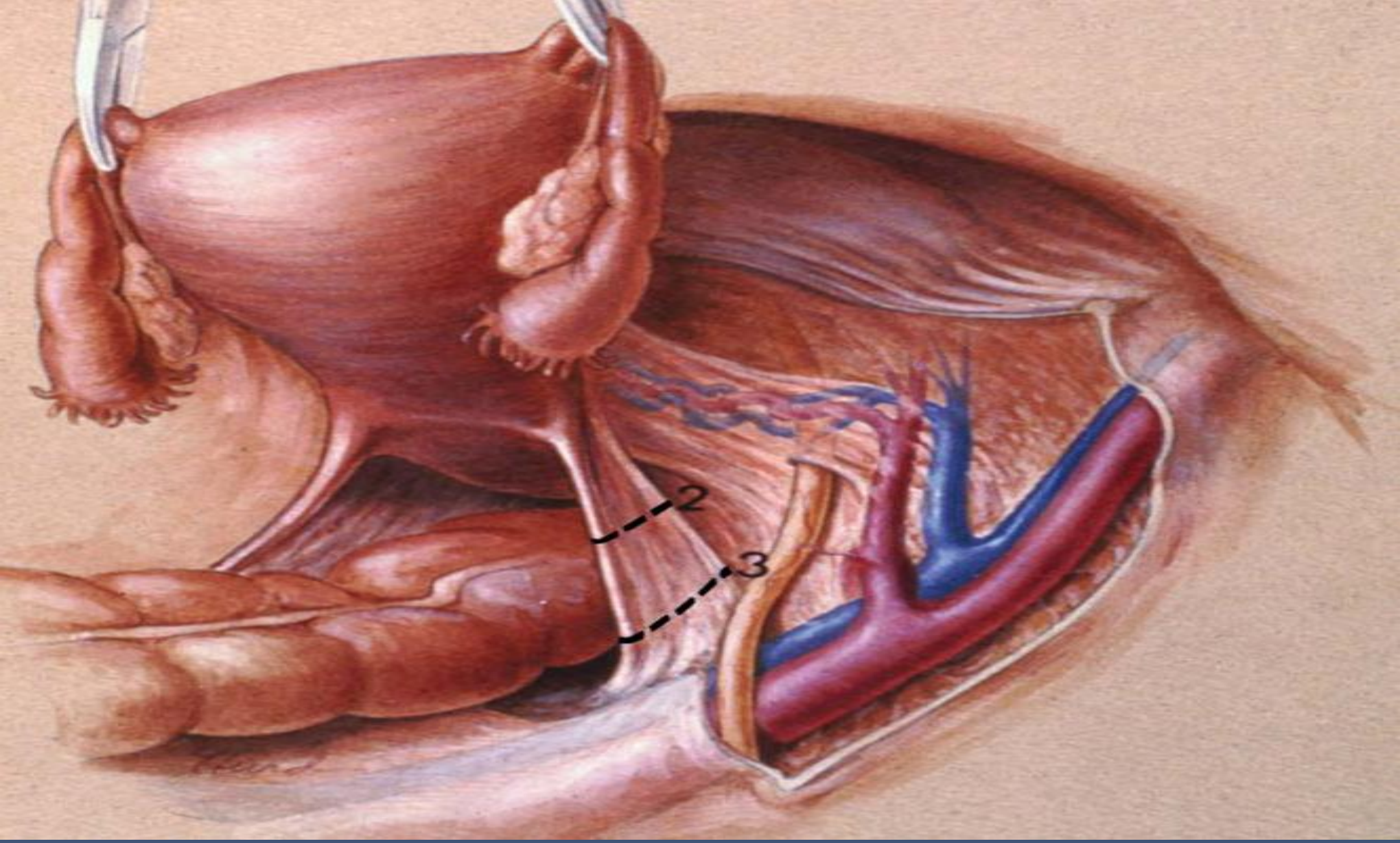
2. small postirradiation recurrences limited to the cervix

Class III procedure is a wide radical excision of the parametrial and paravaginal tissues

The uterine artery of the superior vesical artery, along with a portion of the pubovesical ligament.

The uterosacral ligaments are resected at the pelvic sidewall.

The upper 25% of the vagina is removed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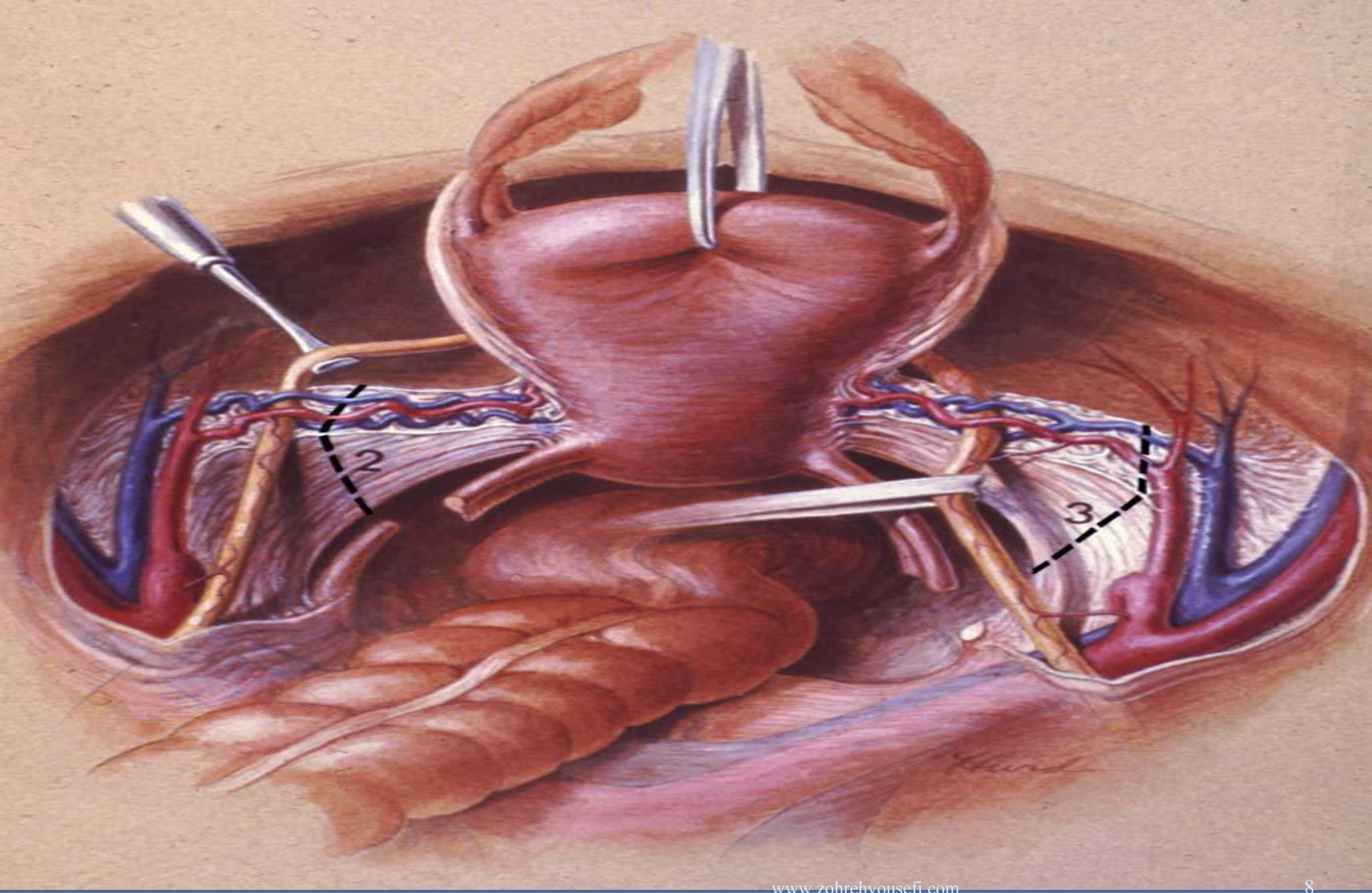
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Intraoperative injuries

- **Pelvic blood vessels**
- **Ureter, bladder**
-
- **Rectum**
- **Obturator nerve.**

Hysterectomy complications:

- surgical wound infection
- urinary tract infection
- **Excessive bleeding**

The use of electrocautery and hemoclips has assisted the surgeon immensely with hemostasis,

Complications of Radical Hysterectomy/LND:

- **Bladder/rectal dysfunction**
- **Lymphocyst/ lymphedema**
- **Urethral strictures**
- **Ureterovaginal fistula**

Coming out of surgery, Mr. Rogers's anesthesia suddenly wore off.

pulmonary embolism is infrequent. Vesicovaginal or ureterovaginal fistulas occur in approximately 1% of cases.

Early postoperative Complications of radical hysterectomy

- most common
- urinary tract infection
- atelectasis
- Prolonged ileus
- Venous thrombosis
- pulmonary embolism
- Vesicovaginal or
- Ureterovaginal fistulas

urinary tract infection

Urinary tract infections can occur in conjunction with bladder dysfunction

maintain a urine output above 2,000 mL per day to avoid urinary tract infection.

Infections

antibiotic prophylaxia

single doses as effective as a multiple-dose

- **Venous thrombosis**
- trauma to the vein wall in pelvic lymphadenectomy
- venous stasis ,
- local tissue necrosis
- tissue thromboplastin
- Prolonged immobilization of the lower extremities

- prophylactic low-dose heparin, 5,000
  2 hours before surgery
  5 postoperative days

Ureter

- Devascularization

- ischemic necrosis of the wall of the
- terminal ureter
-
- ureteral stenosis (lymphocyst)

- ureteral stricture

- ureterovaginal fistulas

Vesicovaginal Fistula

- Devascularization
- ischemic
- necrosis of the wall of the urinary tract

Nearly one third of urinary tract fistulas following surgery heal spontaneously

Late Complications

1-Neurogenic Dysfunction

2- Genuine stress incontinence

- All patients have some degree
- of bladder dysfunction

- incidence of significant N D
- as high as 50%.

- more radical dissection
- cardinal ligaments more N D

loss of sensation of bladder fullness

- **Decreased bladder capacity**
- **Increased residual urine volume**

urodynamic studies have shown that

a residual hypertonicity in the

bladder detrusor muscle and urethral sphincter mechanism sometimes

produces dysuria and

stress incontinence

Cystometry to evaluation bladder dysfunction

- hypertonic bladder
- hypotonic bladder
- bladder initially can be hypertonic

Intraoperative electrical stimulation to identify and preserve the vesical nerve branches.

Proper management of the bladder in the first several weeks after operation is essential

Urinary tract infections can occur in conjunction with bladder dysfunction

1-avoid overdistention

2-transurethral catheterization

catheter duration 4 to 7 days

unacceptable post void residual

continuous indwelling catheter

voiding by the clock

Aid of the abdominal muscles

check post voiding residuals ultrasound scan

below 50 to 75 mL

some lifelong self-catheterization

r Dysfunction

Condition can be self-limiting

Sexual Dysfunction

- insufficient lubrication,
-
- reduced vaginal length
-
- reduced elasticity
- and dyspareunia

Preservation of ovarian function is often desirable

Lateral ovarian transposition

rare occurrence of occult metastases to the ovary in patients with adenocarcinoma of the cervix

suggest that the incidence is between 0.6% and 1.3%

Lymphedema

The onset of the swelling was

- **within 3 months in 53%,**
- **within 6 months in 71%,**
- **within 12 months in 84%**

Retroperitoneal Spaces

lymphocyst

drains are placed or not

if the peritoneum is left open over the surgical site

successful sclerosis

injection of a solution of tetracycline OR

povidone-iodine sclerosis

Neuropathies

- Nerve injury to the femoral
- obturator
- peroneal
- Sciatic
- genitofemoral
- ilioinguinal
- lateral femoral cutaneous
- pudendal nerves

most common neurologic injuries Obturator

Awareness of the anatomic location
careful surgical are the
careful placement of self-retaining retractors
securing hemostasis
careful positioning of patients

Rectum

acute and chronic rectal dysfunction
difficulty with defecation
loss of defecation urge
anorectal manometry studies were abnormal

partial denervation of the rectum

Treatment : Dietary fiber modifications
rectal stimulation with suppositories

COMPLICATIONS

- Study in Finland during 2010
  - 10,110 hysterectomies,
  -
  - rate of overall complications of 17.2%, 23.3% respectively.
- surgeon's expertise in reducing complications is key,

Makinen J, Johansson J, Tomas C: Morbidity of 10 110 hysterectomies by type of approach. Hum Reprod 20011 Jul; 16(7): 1473-8

Treatment complications among long-term survivors of cervical cancer: treated by surgery

Ninety-eight female patients who were diagnosed and treated from invasive carcinoma of the cervix uteri 5 years or more are included in this study

All the cases were free of disease and had survived up to December 2010.

Forty-one cases were treated with radical hysterectomy with removal of the lymph nodes

Kamal A. Elghamrawi, Mamdouh H. Haggag, Emmad E. Habib *oncology Revies* Vol 5, No 4 (2011) > Elghamrawi

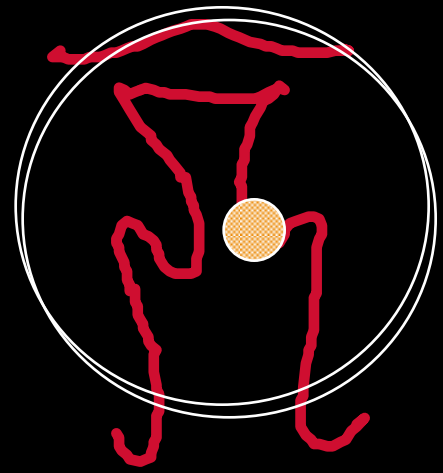
Pelvic vein thromboses had a tendency to occur among the surgical group especially in obese females (p value 0.005).

The frequency of sexual dysfunction was comparable in both groups with no statistical difference

Kamal A. Elghamrawi, Mamdouh H. Haggag, Emmad E. Habib *oncology Revies* Vol 5, No 4 (2011) > Elghamrawi

Nerve-sparing

radical hysterectomy.



To avoid

bowel, bladder,

and sexual dysfunction

,

(NSS) has been developed

(NSS) a more conservative type
of radical hysterectomy

superior hypogastric plexus
(over the sacral promontory)

parasympathetic fibers
dorsal part parametrium
and
vesicouterine ligament

sympathetic fiber
small pelvis beneath the ureter

preservation of the pars nervosa

reduces the incidence of

postoperative dysfunction

Nerve-sparing radical hysterectomy (NSS)

no increase in recurrence
or decreased
survival in a series of patients treated with (NSS)


THANKS OF Your ATENTION