TYKS
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Surgical treatment of metastatic testicular cancer

11.09.2015, Helsinki National Testis Cancer Meeting

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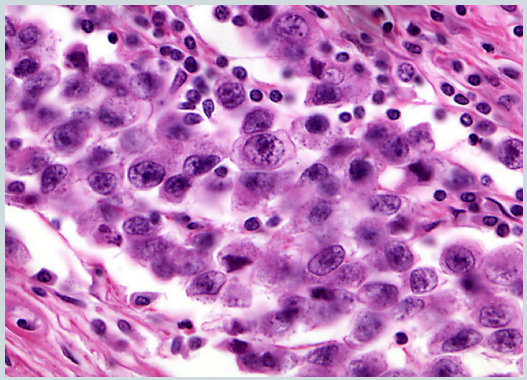
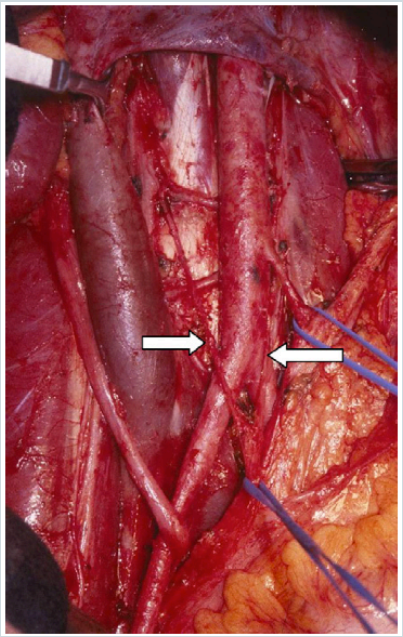


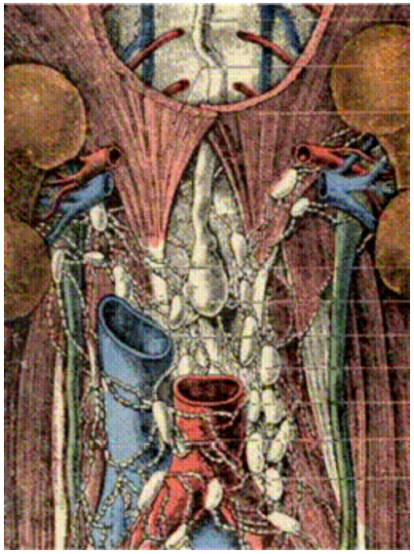


RPLND - 5 key questions

1. When ?
2. Why ?
3. How ?
4. With what results ?
5. Where ?

When?

INDICATIONS AND TIMING OF SURGICAL RESECTION



seminoma

- Post-treatment mass resection rarely indicated (“last option”)
- PET-scan & histology needed before any consideration of surgical interventions
- typically more challenging than non-sem surgery

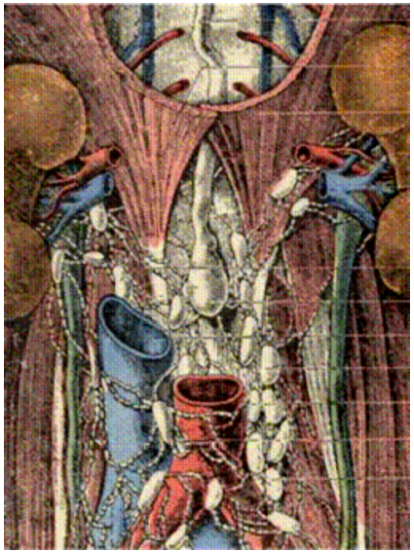
Non-seminoma

- Classic indication
  - >1 cm post-chemo mass with normalized markers[1]
  - <1 cm debated[2]
  - RPLND 4-6 weeks after completion of chemotherapy
- Other indications
  - Stage 1, primary RPLND
  - Stage 2 & negative markers, primary RPLND
  - Late relapses
  - Post-salvage chemotherapy
  - "desperation surgery"
    - Rising markers, resectable disease

[1]Kollmanssberger JCO 2010, [2]Oldenburg JCO 2003

WHY?

BENEFITS AND RATIONALE FOR SURGICAL RESECTION

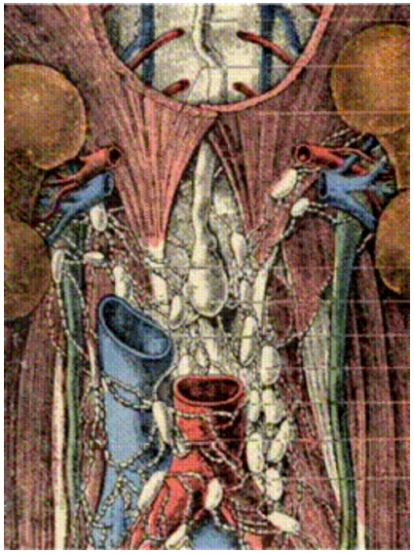


WHY

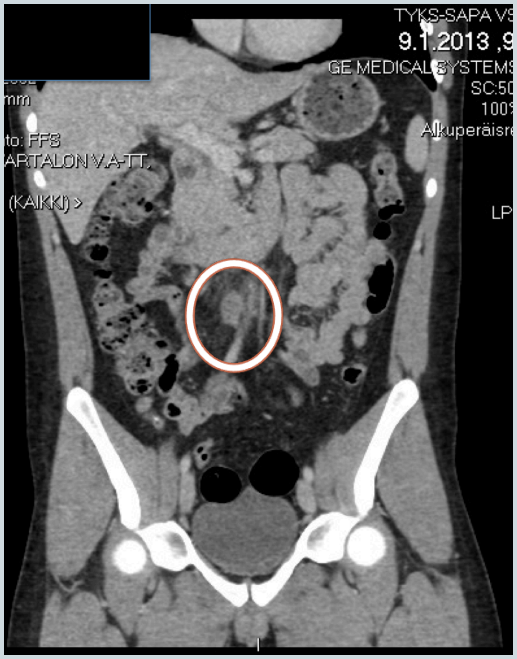
- Accurate staging
  - Histology
  - Necrosis/fibrosis, teratoma, viable cancer
- Curative
  - Teratoma
    - Growing teratoma sdr
    - Malignant transformation
  - low volume viable cancer (<10%)
- Less need for imaging in further FU after RPLND
- Psychological aspects
  - “Cure” vs. continuous follow-up

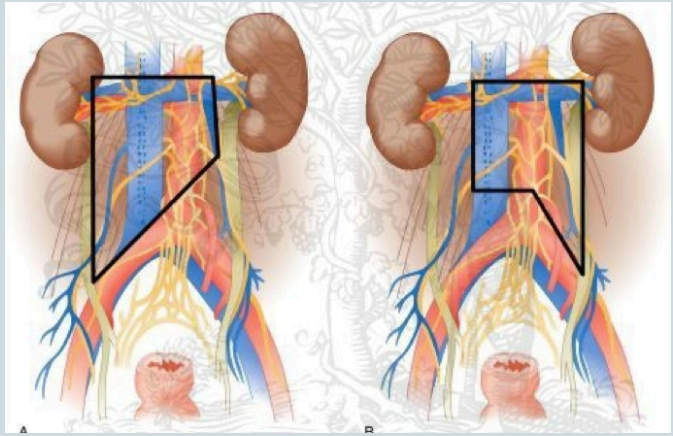
HOW?

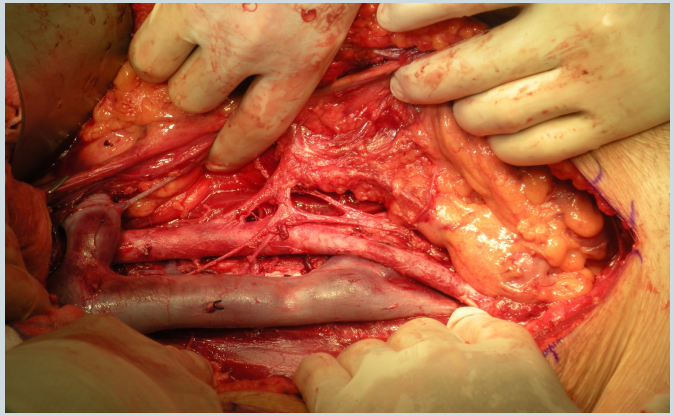
SURGICAL TECHNIQUE OF RPLND

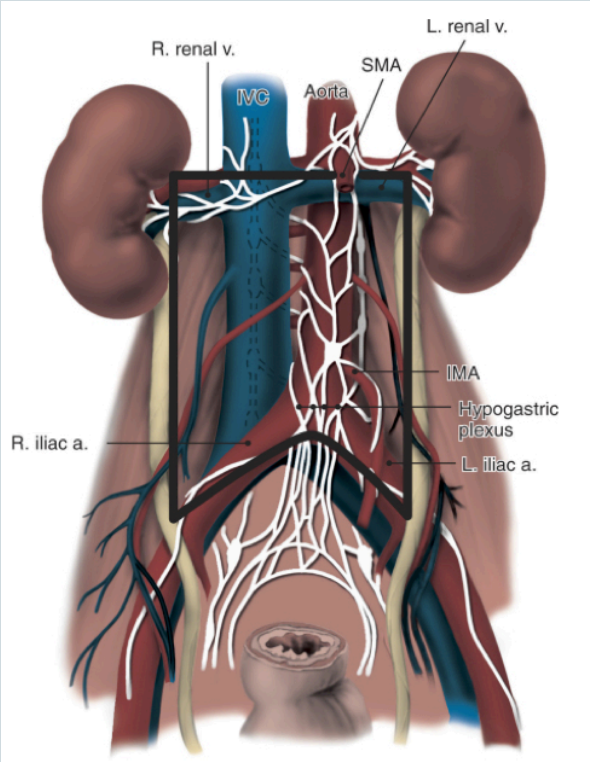


Lumpectomy vs. limited template vs. bilateral resection ±nerve sparing





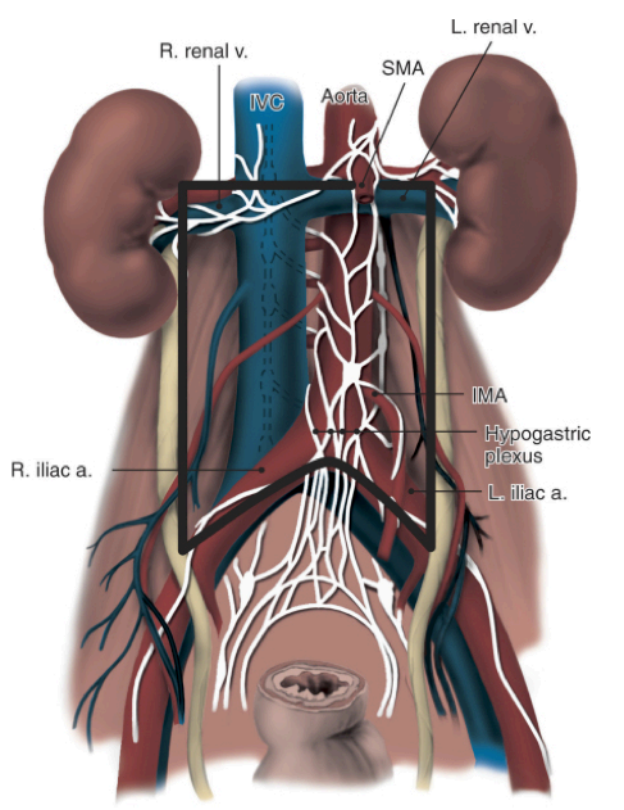


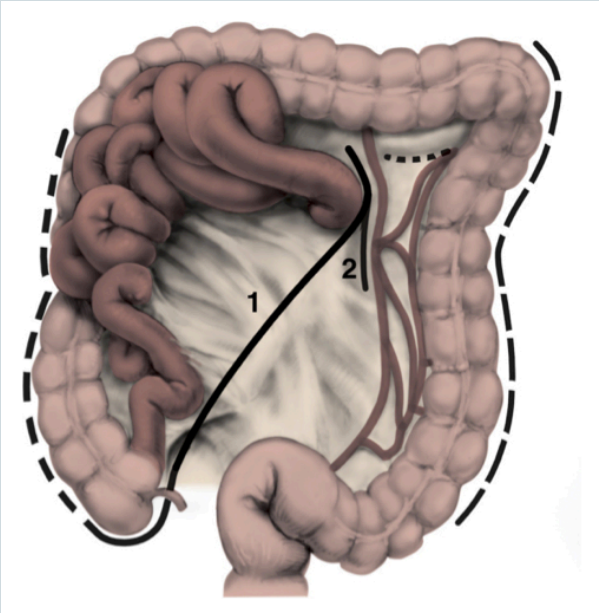


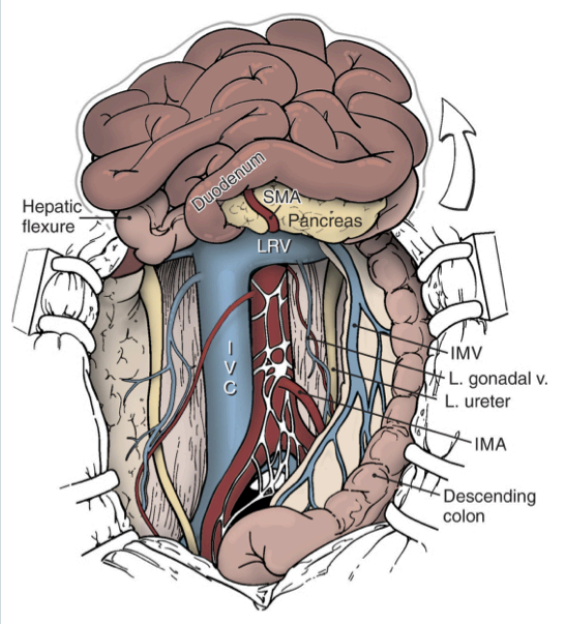
http://www.elsevierimages.com/image/25290.htm

- Lumpectomy not sufficient
  (Erlich JCO 2010, Rabbani BJU 1998, Tekgul Urology 1994, Aprikian Cancer 1994)
- Template surgery may be appropriate in selected cases
  - Late relapse
  - Low volume disease

exposure


R. renal v.
L. renal v.
SMA
IVC
Aorta
IMA
Hypogastric plexus
R. iliac a.
L. iliac a.


1
2

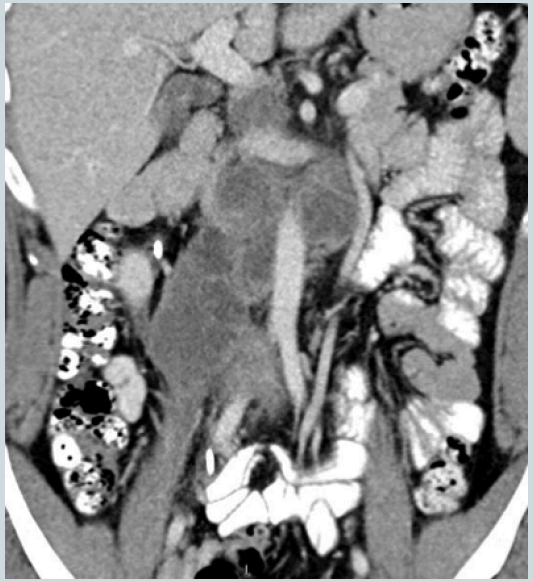

Hepatic flexure
Duodenum
SMA
Pancreas
LRV
IVC
IMV
L. gonadal v.
L. ureter
IMA
Descending colon

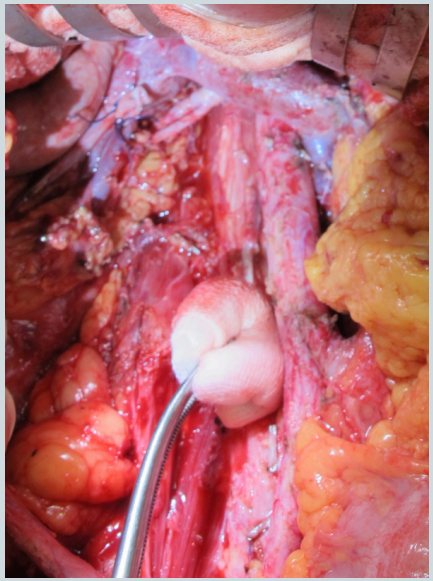
Multiple affected organs

- Highest volume site operated initially
- All sites resected if feasible
- Retroperitoneal histology predict other site histology, but disconcordance up to 30%

Planned/unplanned resections & repairs

- Most often resected
  - Great vessels
  - Kidney
  - Psoas
  - Liver
- Vessels
  - Arteries – graft
  - veins - resection

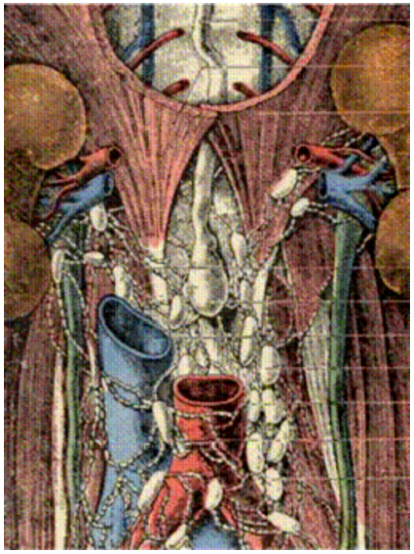




- Intermediate/poor risk disease with >5 cm masses predict need for vascular procedures

RESULTS?

EXPECTED & ACHIEVED RESULTS OF SURGICAL RESECTION

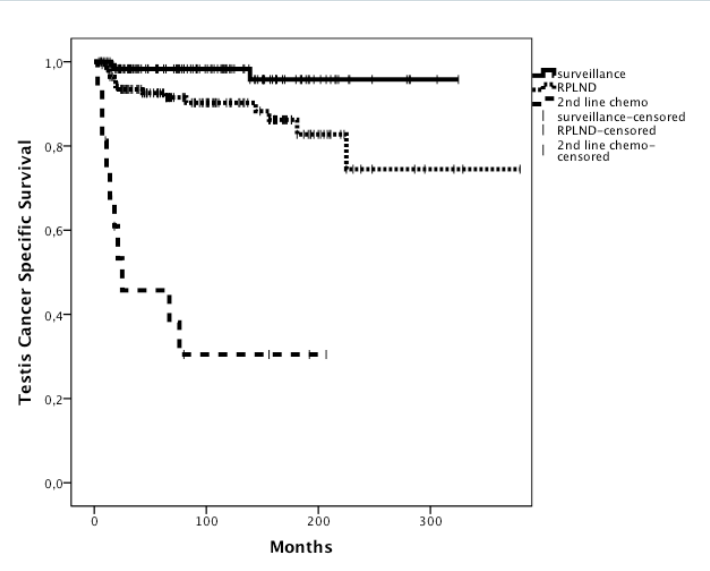


Literature, oncological outcome

- Histology
  - Necrosis/fibrosis 40%
  - Teratoma 50%
  - Viable cancer 10%
- Local recurrence <5% in experienced centers

Princess Margaret Hospital (n=299)
Non-sem post chemotherapy
Outcome after response
<1cm surveillance
>2cm markers neg, RPLND
Markers↑ 2nd line chemotherapy

Boström & Jewett, unpublished

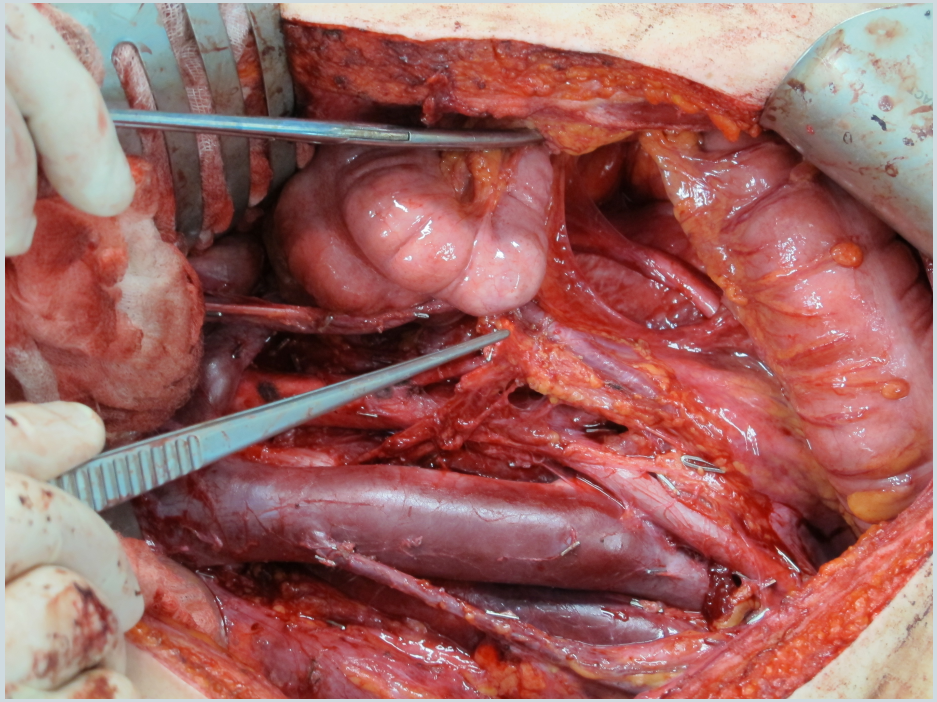


Literature, complications

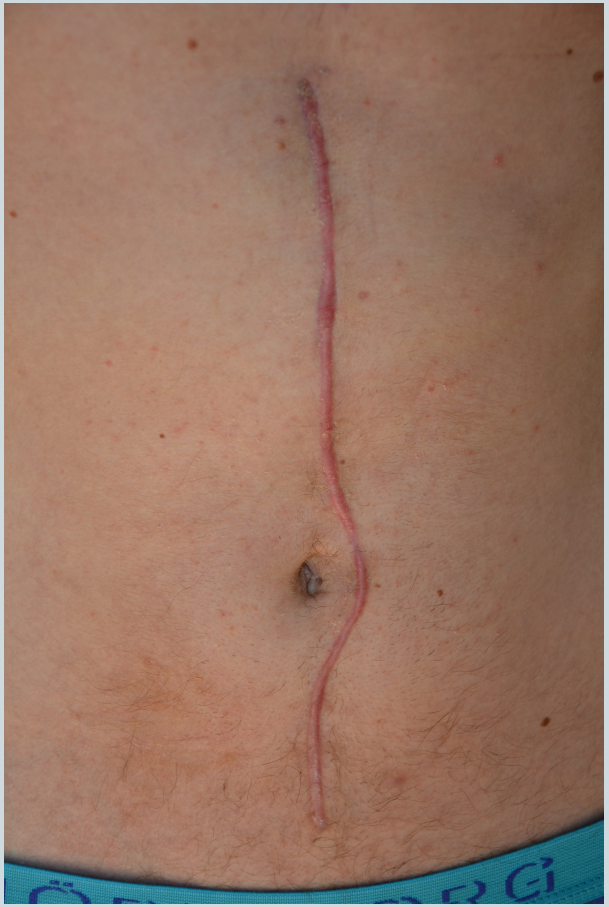
- Mortality
  - 1% (0.8-6.0%)
- Major complications
  - 7-30%
  - Most common: chylous ascites, bowel & (reno)vascular injury, ileus/bowel obstruction, pancreatitis, hernia

Other consequences

- Retrograde ejaculation in non-nerve sparing surgery (<20% after nsRPLND)

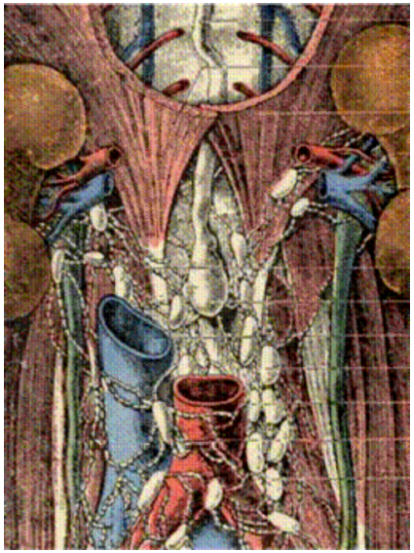


- Scar



WHERE?

NEED FOR CENTERS OF EXCELLENCE



Generally agreed

- High volume, dedicated centers
- Multidisciplinary team
  - uro-oncologist, med. onc, rad onc., radiology, pathology…
- Surgery team
  - uro-oncologist, anesthesiology, ICU & vascular, thoracic, head & neck, hepatobiliary …
- Challenges in Finland
  - No centralization
  - Low volume, approx 15 RPLND annually (estimated)

Kysely (questionnaire)

- Yliopistosairaaloiden johdolle 2.9.2015
- Kysymykset

1. RPLND määrä sairaalassani
2. Onko ERVA-alueella keskitetty
3. Onko yksikössä asiaan erityisesti perehtynyt henkilö?
4. Pystyttekö hoitamaan kattavasti
5. Tulisiko keskittää?
6. Jos tulisi, kuinka moneen paikkaan?
7. Olisitteko valmiita vastaanottamaan potilaita muista yo-sairaaloista?

Kysymys 1. RPLND määrä sairaalassani

1. 1-8/v
2. n. 5/v
3. 1-6/v
4. 0-1/v
5. “ei ole tehty ainakaan 10 vuoteen”

Kysymys 2. keskitetty ERVA-alueella?

4 x kyllä

1 x ei

Kysymys 3. Asiaan erityisesti perehtynyt henkilö?

4 x kyllä

1 x ei

Kysymys 4. Pystyttekö hoitamaan kattavasti alueellanne?

5 x kyllä

Kysymys 5. Tulisiko keskittää?

4 x kyllä

1 x ei

Kysymys 6. kuinka moneen paikkaan?

3 x yhteen sairaalaan

1 x kolmeen sairaalaan

Kysymys 7. Olisitteko valmiita ottamaan potilaita myös muista yo-sairaaloista?

4 x kyllä

1 x kyllä/ei

summary

- There is a consensus of most main questions regarding role of RPLND
- RPLND is important for prognostication of non-sem post chemo
- RPLND offers cure in teratomas and low volume (post chemo) cancers
- Complex surgery, dedicated centers with multidisciplinary teams needed

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Thank You