6th CONGRESS OF THE
MEDITERRANEAN MULTIDISCIPLINARY ONCOLOGY FORUM
&
3rd INTERNATIONAL CONGRESS ON ONCOLOGICAL SCIENCES

GEMCITABINE BASED TRIMODALITY TREATMENT IN PATIENTS WITH MUSCLE INVASIVE BLADDER CANCER: HACETTEPE UNIVERSITY EXPERIENCE

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Aim

- The current standard treatment for muscle invasive bladder cancer (MIBC) is radical cystectomy
- Multimodality bladder-preserving treatment } Comparable outcomes

- To evaluate oncological results and toxicity profile of bladder-sparing treatment with radiotherapy and gemcitabine chemotherapy in patients with MIBC

Material & Methods

- April 2005-November 2018
  - Staging: Thorax-abdomen-pelvic CT and pelvic MRI

- 44 patients with T2-T4a N0M0 MIBC
  - TUR-B
  - External beam radiation therapy (50 Gy/25-28 fractions + boost dose of 10 Gy/5 fractions)
    - 3D/IMRT
  - Concurrent weekly gemcitabine (50 mg/m^2)

Material & Methods

- Parameters:
  - ✓Age
  - ✓Gender
  - ✓Smoking status
  - ✓Neutrophil lymphocyte ratio (NLR)
  - ✓Platelet lymphocyte ratio (PLR)
  - ✓Presence of hydroureteronephrosis (HUN)
  - ✓Preoperative tumor size
  - ✓Presence of carcinoma in situ (CIS)
  - ✓Clinical tumor stage

- Primary end points:
  - ✓Recurrence rate
  - ✓OS, DSS, LRFS, DMFS
- Secondary end points:
  - ✓Acute/late GUS and GIS toxicity

- Follow up:
  - ✓Physical examination
  - ✓Chest radiography
  - ✓Cystoscopic evaluation 6 weeks after RT
  - ✓Thorax-abdomen-pelvic CT once a year

Results

Parameters	
Age (years) [median (IQR)]	72 (66-80)
Gender: n (%)	Male: 33 (75%) Female: 11 (25%)
Smoking status	Never smoker: 14 (31.8%) Smoker/Ex-smoker:30 (68.2%)
Pretreatment Hydronephrosis	No: 32 (72.7%) Yes: 12 (27.3%)
Tumor size (mm) [median (IQR)]	30 (15-59)
Tumor stage (AJCC 8th edition) n (%)	T2: 34 (77.3%) T3-T4: 10 (22.7%)
CIS	No: 30 (68.2%) Yes: 14 (31.8%)
NLR [median (IQR)]	2.60 (1.74-3.73)
PLR [median (IQR)]	126.47 (77.41-184.17)

Results

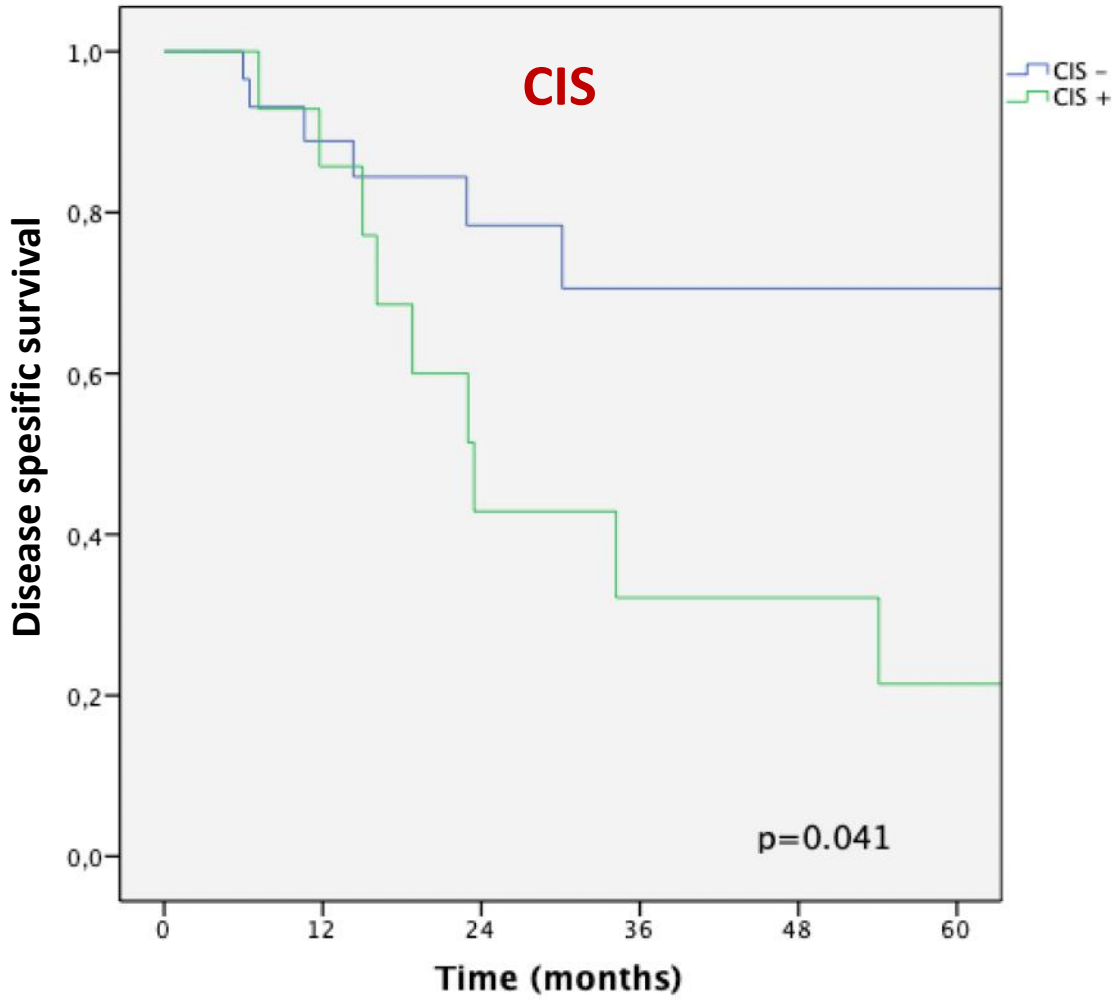
- Complete TUR-B in 68.2% of the patients
- Concurrent median 6 cycles of gemcitabine
- Median follow-up: 19 months (range, 3-153 months)
- TUR-B: 6 weeks after RT
  - ✓Complete response: 37 patients (84.1%)
  - ✓Partial response: 3 patients (6.8%)
  - ✓Stable: 1 patient (2.3%)
  - ✓Progression: 3 patients (6.8%)
- Intravesical recurrence: 7 patients (15.9%)
  - Salvage cystectomy: 5 patients

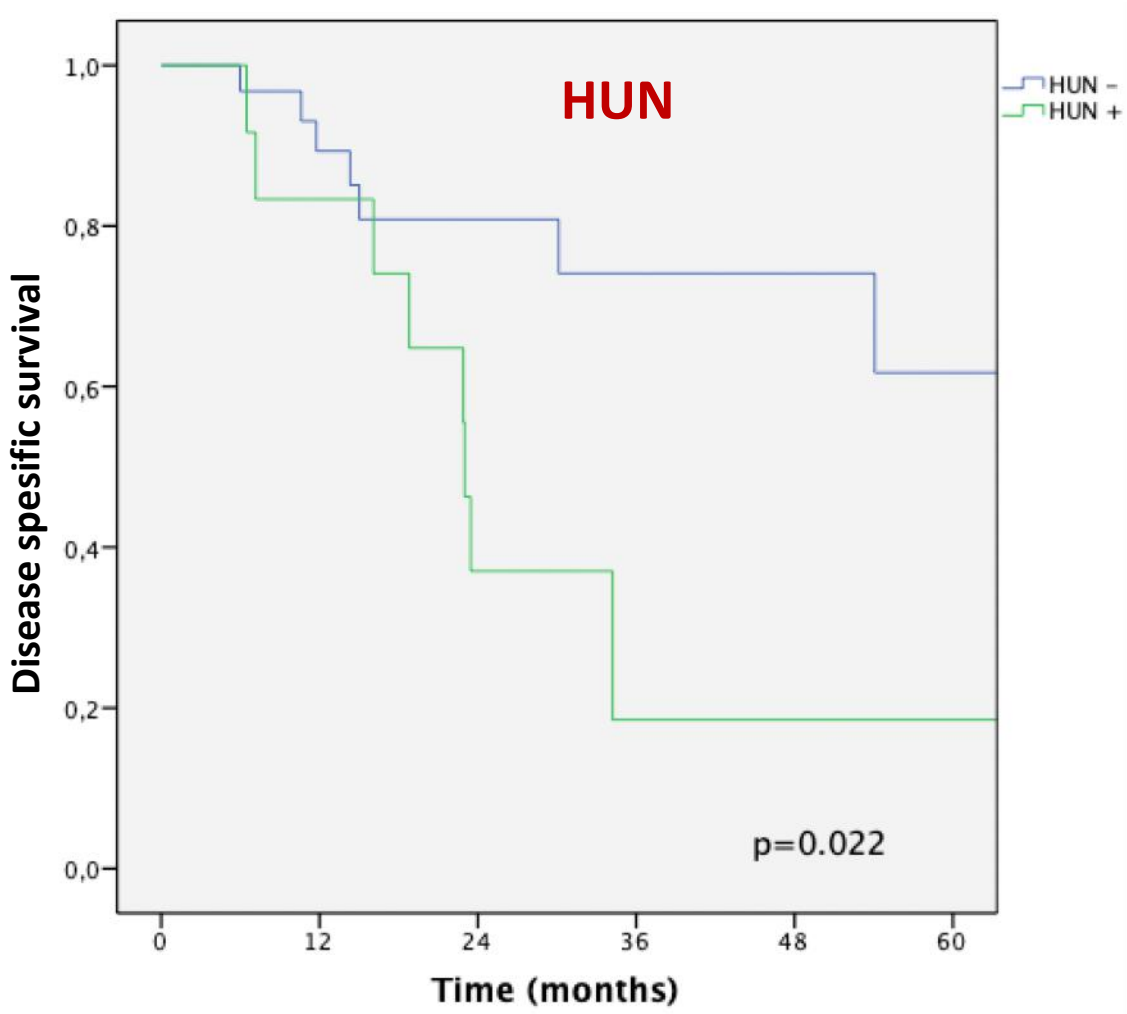
Results

	1-year (%)	2-year (%)	5-year (%)
Overall Survival	85.5	62.8	31.4
Disease Spesific Survival	87.7	64.4	47.2
Local Recurrence Free Survival	65	43.6	31.2
Distant Metastasis Free Survival	68	48.3	33.5

Results

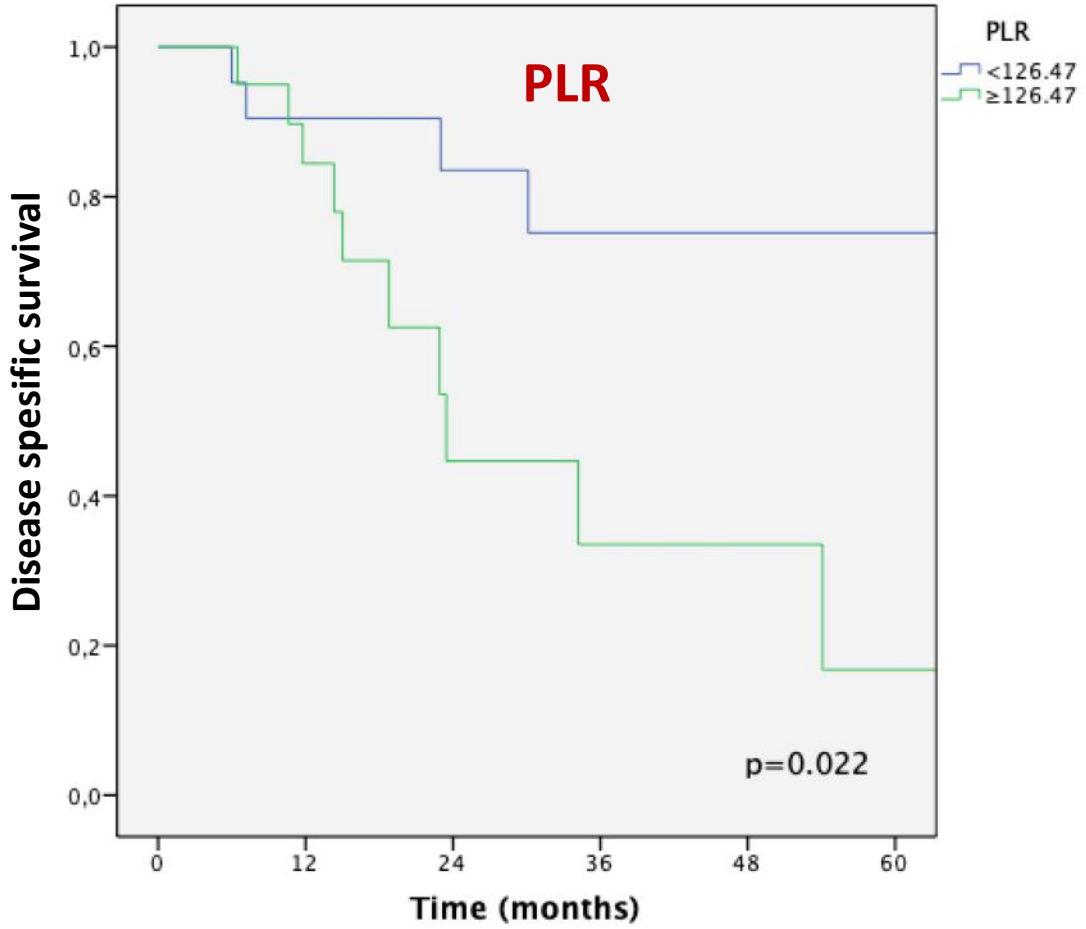
Disease spesific survival

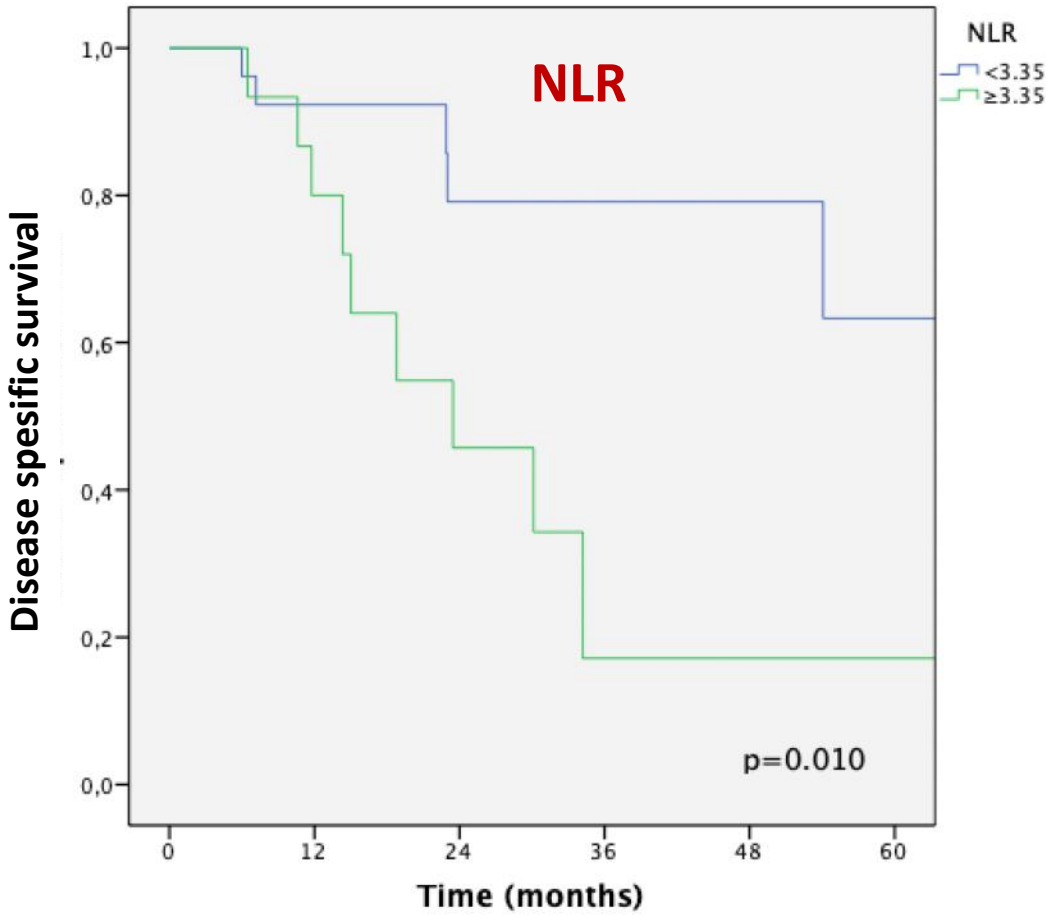




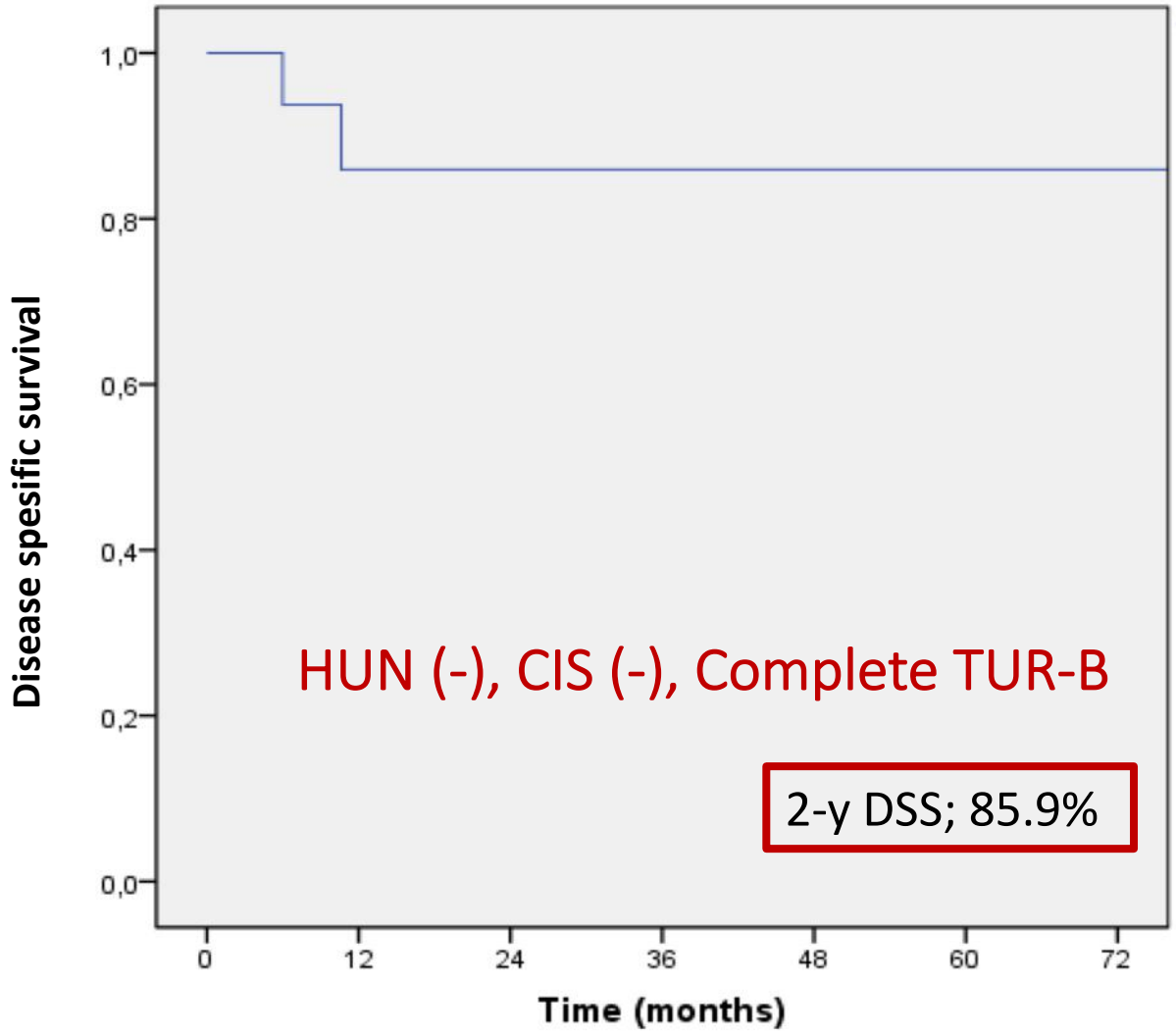
Results

Disease spesific survival





Results


Disease spesific survival
1,0
0,8
0,6
0,4
0,2
0,0
0
12
24
36
48
60
72
Time (months)
HUN (-), CIS (-), Complete TUR-B
2-y DSS; 85.9%

Results

Toxicity	
Acute GIS toxicity	Grade I: 5 (11.4%) Grade II: 3 (6.8%)
Late GIS toxicity	None
Acute GUS toxicity	Grade I: 8 (18.2%) Grade II: 9 (20.5%)
Late GUS toxicity	Grade I: 4 (9.1%) Grade II: 2 (4.5%)

Conclusion

- Gemcitabine-based TMT is well tolerated with similar oncological outcomes reported in the literature
- TMT should be performed in only selected patients
- Patients without HUN, CIS and low NLR and PLR have better DSS

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DOES INTRAVESICAL PROSTATIC PROTRUSION AFFECT ONCOLOGICAL OUTCOMES AND TOXICITY IN PROSTATE CANCER PATIENTS RECEIVING DEFINITIVE RADIOTHERAPY ?

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Aim

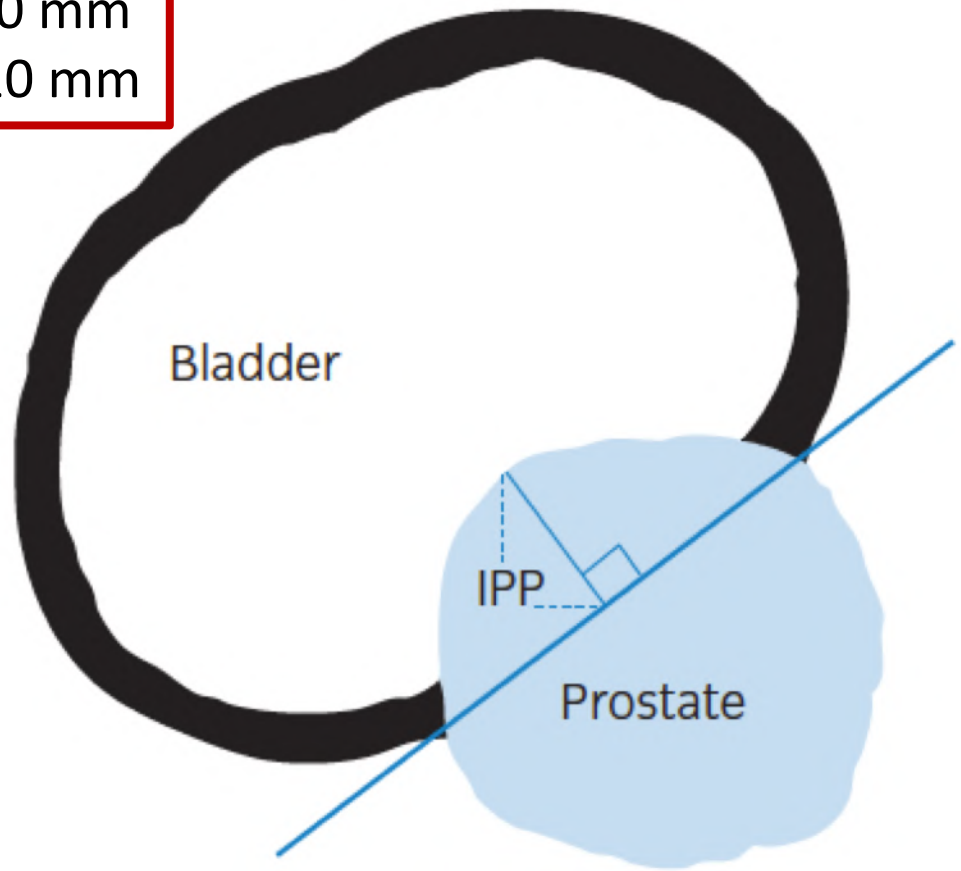
- Intravesical prostatic protrusion (IPP) occurs as the prostate expands into the bladder along the plane of least resistance and is generally due to enlargement of the median lobe
- Increased urinary incontinence rates and prolonged duration of postoperative urinary incontinence after radical prostatectomy
- We aimed to investigate the effect of IPP on oncological outcomes and acute/late side effects in prostate cancer (PCa) patients who underwent definitive radiotherapy (RT)

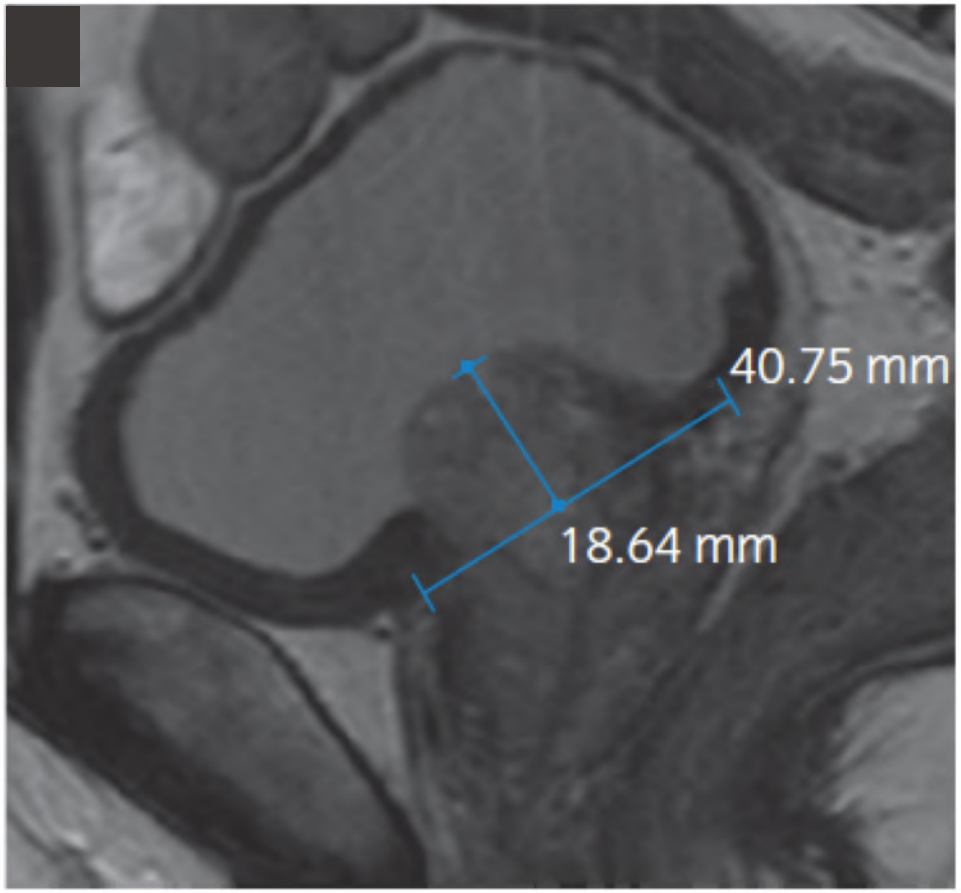
Material & Methods

- April 2007-October 2017; 130 patients
- Median RT dose=76 Gy (range; 70-78 Gy) IMRT (Brainlab® Novalis system)
- IPP was evaluated by experienced radiologists using magnetic resonance imaging (MRI) and radiotherapy planning computed tomography (CT) scans
- Evaluation for age, PSA level, Gleason Score, prostate volume, total RT dose, overall survival, biochemical recurrence rate and acute/late toxicity

Measurement of IPP (EAU/2019)

Gr I: < 5mm
Gr II: 5-10 mm
Gr III: > 10 mm





Chia SJ et al. *BJU Int.* 2003;91(4):371-374.

Results

Parameters	Median
Age	71.5 years (range, 45-86 years)
Gleason Score	7 (range, 6-10)
PSA level	28 ng/ml (range, 2-374 ng/mL)
Prostate volume	46.25 mL (IQR=30.9-62.4)
Androgen deprivation therapy	12 months (range, 3-84 months)
Risk groups	**Number of patients (%)**
Low risk	10 (7.7%)
Intermadiate risk	22 (16.9%)
High risk	98 (75.4%)

Results

- 49 patients have both MRI and CT scans
- Very strong positive correlation for IPP grades ($r=0.758$, $p<0.001$)

		MRI			
		No IPP (n)	Grade I IPP (n)	Grade II IPP (n)	Grade III IPP (n)
CT	No IPP (n)	12	5	5	0
	Grade I IPP (n)	1	2	5	0
	Grade II IPP (n)	0	2	8	1
	Grade III IPP (n)	0	0	1	7

Results

- Evaluation of IPP grades in 130 patients;

IPP grades (CT scan)	Number of patients (%)
No IPP	42 (32.3%)
Grade I	19 (14.6%)
Grade II	47 (36.2%)
Grade III	22 (16.9%)

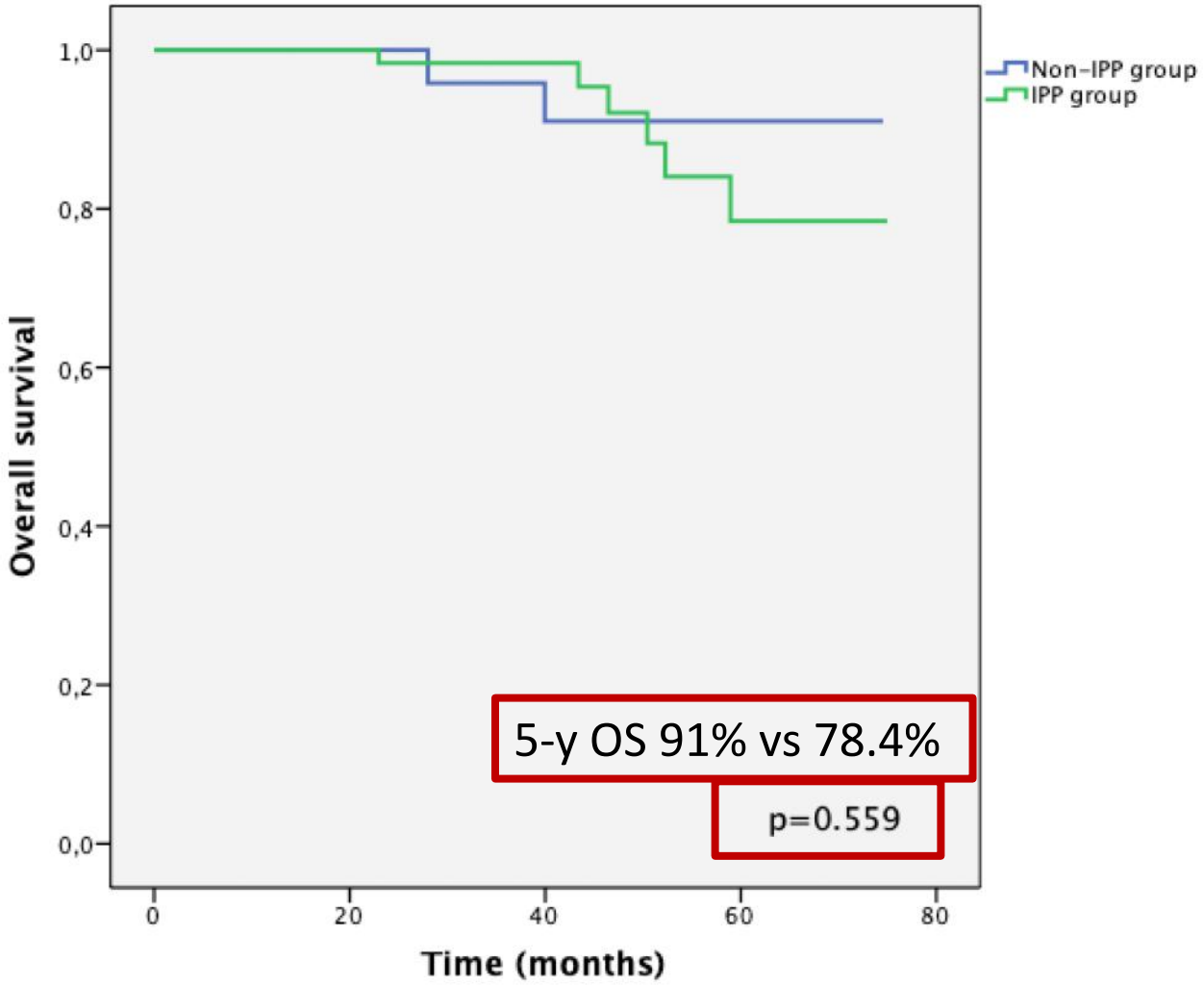
Results

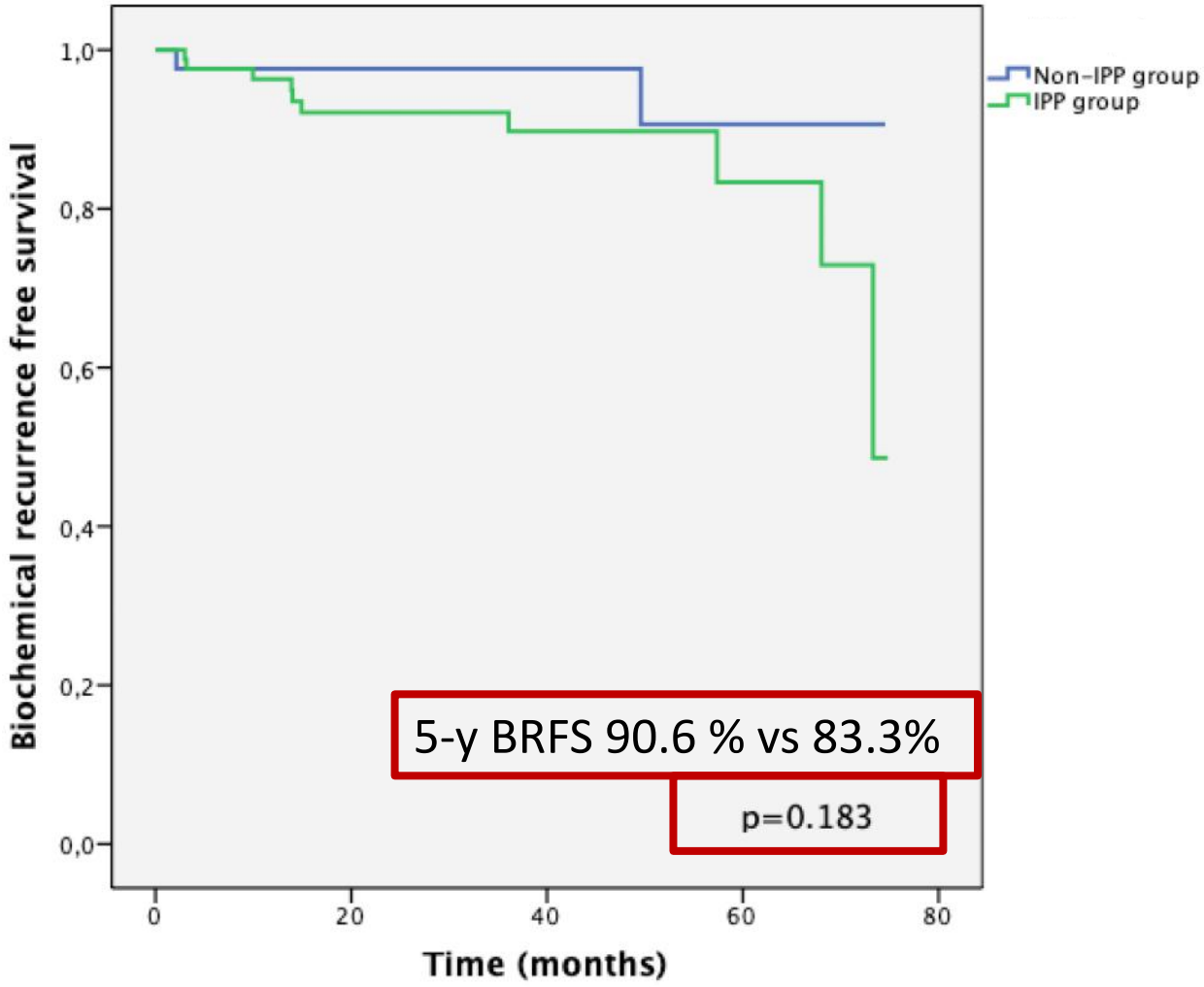
Median (IQR)	IPP group	Non-IPP group	P value
Age	72 (66-76)	70 (66-75)	0.275
PSA level (ng/ml)	31 (18-98)	24.5 (12.25-79.75)	0.464
Gleason Score	8 (7-9)	7 (7-9)	0.730
Prostate Volume (mL)	48.65 (34.55-63.93)	34.25 (22.30-56.65)	0.013*

Results

- Median follow-up time was 36.4 months (range, 2-75 months)
- Median survival was not achieved during the follow-up period
- Biochemical recurrence:
  - IPP group: 10 patients (11.9%)
  - Non-IPP group: 2 patients (4.8%)

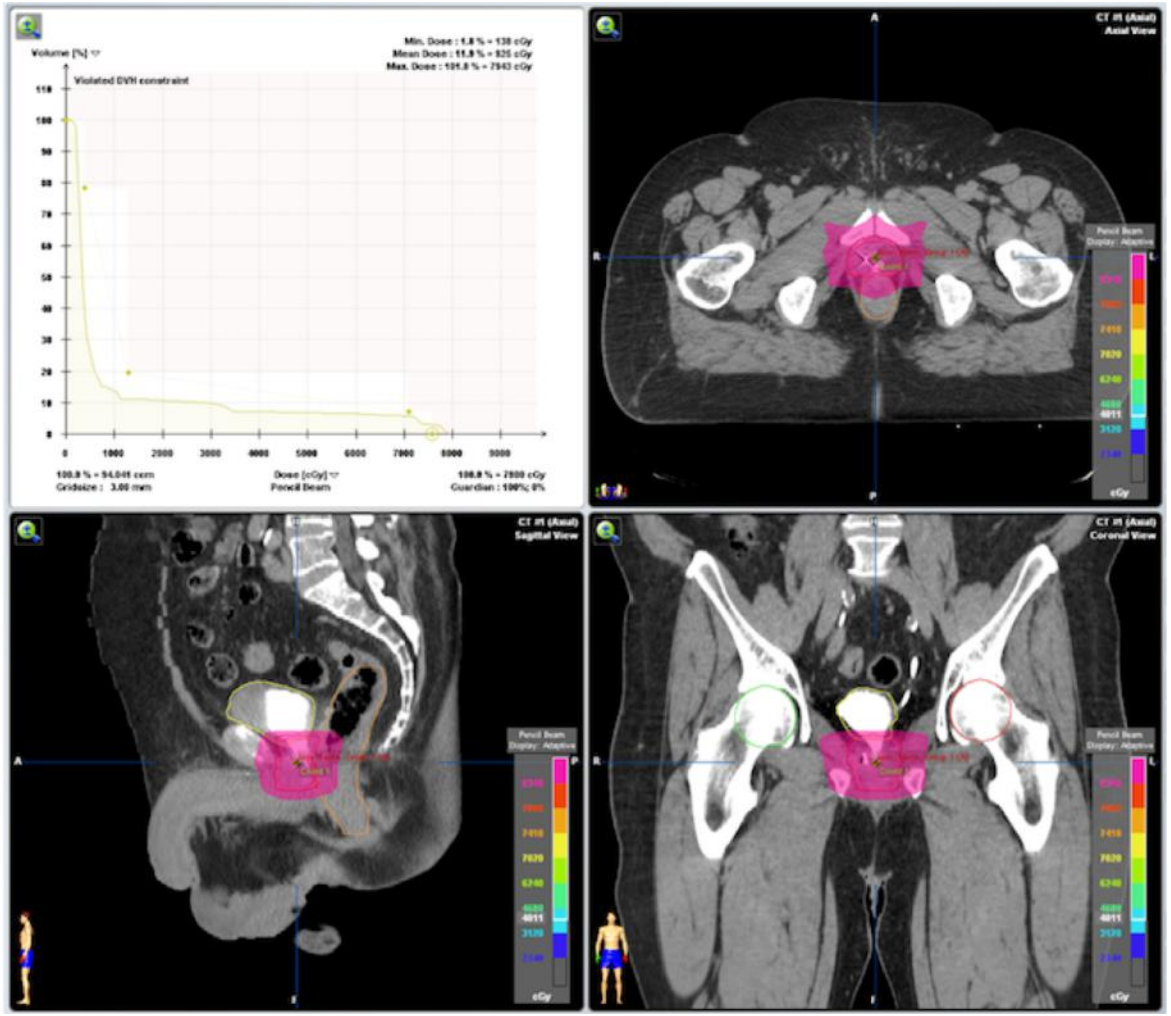
Results


Overall survival
1,0
0,8
0,6
0,4
0,2
0,0
0
20
40
60
80
Time (months)
Non-IPP group
IPP group
5-y OS 91% vs 78.4%
p=0.559

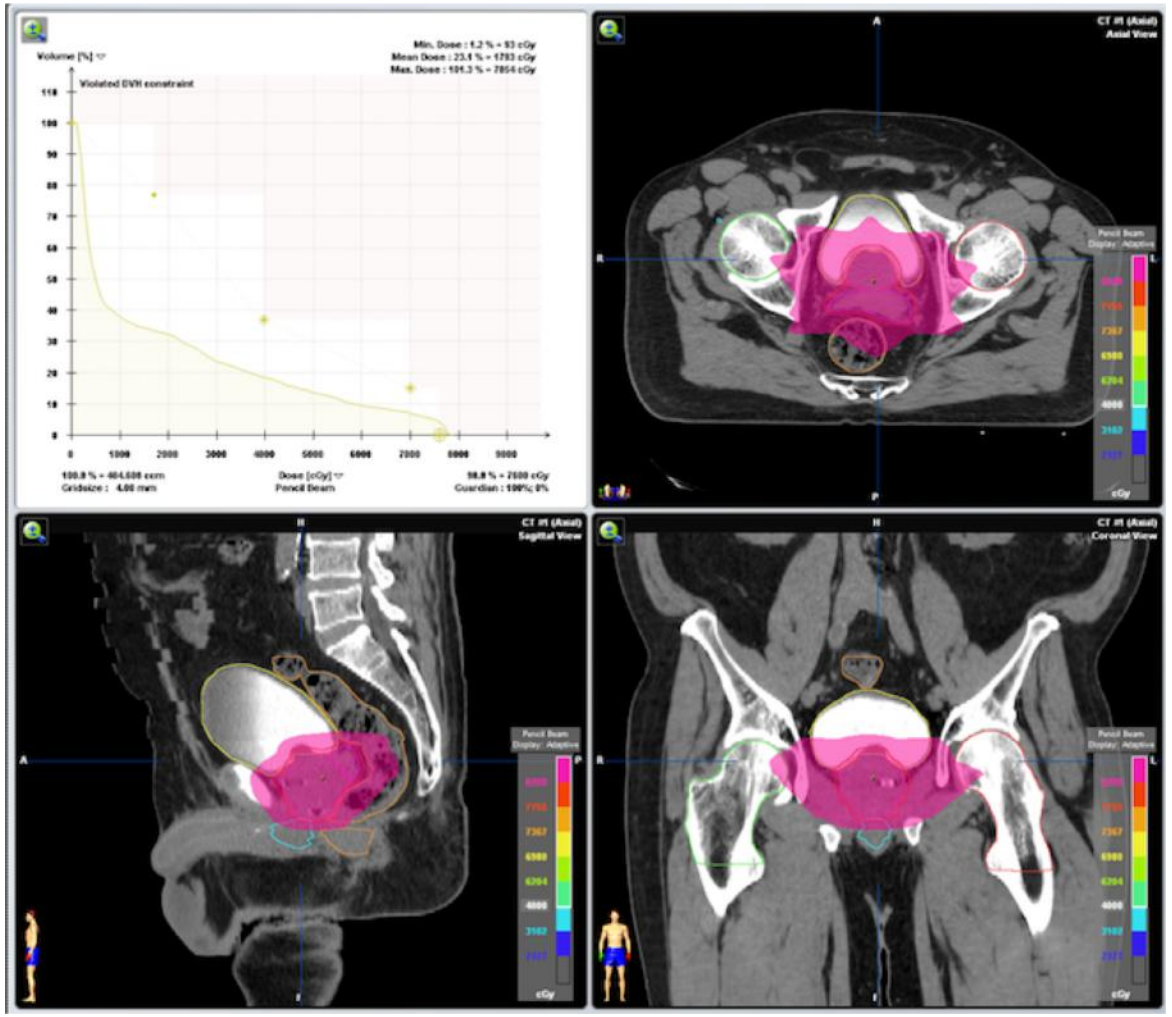

Biochemical recurrence free survival
1,0
0,8
0,6
0,4
0,2
0,0
0
20
40
60
80
Time (months)
Non-IPP group
IPP group
5-y BRFS 90.6 % vs 83.3%
p=0.183

Results

Adverse Events (Grade 2)	IPP Group (N=88)	Non-IPP Group (N=42)	P value
Acute GIS toxicity			
Yes	4	3	0,681
No	84	39	
Acute GUS toxicity			
Yes	44	12	0,024*
No	44	30	
Late GIS toxicity			
Yes	0	0	NA
No	88	42	
Late GUS toxicity			
Yes	17	8	0,971
No	71	34	



The treatment planning of the patient without IPP



The treatment planning of the patient with grade III IPP

Conclusion

- CT scan correlates well with MRI for IPP evaluation in PCa patients
- No statistically significant difference in OS and BRFS between the groups
- Acute GUS toxicity was significantly higher in the IPP group

BİLATERAL TESTİCULAR METASTASİS OF PROSTATE ADENOCARCİNOMA: A CASE REPORT

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İNTRODUCTİON

- Prostate cancer is one of **the most common** solid organ malignancies of male population
- It metastases to iliac lymph nodes, bone, lungs, rarely testes and other genitourinary system parts
- Testicular metastasis, especially **bilateral testicular metastasis**, is **rarely** seen (*)

* Dutt N, Bates AW, Baithun SI: 2000 Secondary neoplasms of the male genital tract with different patterns of involvement in adults and children. Histopathology. 37: 323-331.

CLİNİCAL CASE

- We aimed to present this rare case report; with clinical and radiological imaging findings and literature.

- 68 years old, male patient

- This patient, who had no previously known diseases, presented with hematuria for about 2 months

CLİNİCAL CASE

- Digital rectal physical examination shows grade 1 nodular lesion in the prostate
- In laboratory : PSA > 100 ng / ml
- Prostate needle biopsy result: prostate adenocarcinoma Gleason 9 (4 + 5)

TREATMENT

- After **LHRH agonist+antiandrogen therapy** was given **during 1 year period**
- PSA decreased to 3.94 ng/ml
- After this treatment was completed, patient did not come for follow-up examination for 1 year.

TREATMENT

- Control abdomen MRI→ progression, **enzalutamide** treatment was started.
- After 3 month of enzalutamide therapy, abdominal MRI → progression→ switched to **cabazitaxel**
- After 3 cycles of cabazitaxel→ progression→ **LUTESIUM-177 PSMA** was started and 3 cycles were given
- Control PET→ widespread progression→ **mitoxantron** was started

TREATMENT

- First examination after 1 year, control CT shows;

  →widespread lymph nodes in the abdomen

  →bone metastasis in the T7 vertebra

- We decided to initiate **docetaxel** chemotherapy.

- After 3 cycles of docetaxel, the control abdomen MRI→minimal progression and the treatment was completed with total of 6 cycles.

CLİNİCAL CASE

- While receiving mitoxantron chemotherapy, the patient **admitted** to our clinic with **painless mass in both testes** and **right sided groin pain.**

- Physical examination: **a rigid mass** in the upper lobe of the **left testis**

  hydrocele in both testes

- Tumor markers :AFP, β-HCG→ within normal limits

  PSA→1761 ng / ml.

ULTRASOUND:

- 5x4 mm diameter lesion in the right testis
- A large sized hypoechoic lesion with a lobulated contour
- Rough calcifications of 11x10 mm in the left testicle

ABDOMİNAL MRI:

- Similar to USG findings,
- The lesions seen in both testes were contrasted
- In T2-diffusion images contrasted lesions are hypointense, similar to lesions in the prostate

Axial T2 and T1 images:-hypointense in T2,

-isointense in T1

-no-limiting lesions were contrasted

CLİNİCAL CASE

The lesions in the testis were evaluated as metastases because;

a) The patient had **history of malignancy**

b) In USG there was significant increase in **blood flow** of the testis

c) The primary disease was **widespread** metastatic

d) The lesions in the testis had **similar** MRI **signal** characteristics

e) The lesions were **bilateral**

CLİNİCAL CASE

- Bilateral inguinal **orchiectomy** was **not performed** because it **would not cause change of the treatment** protocol

- The current treatment of the patient was continued without making any changes.

Figure 1: Prostate cancer testis metastasis T2 T1 sequence

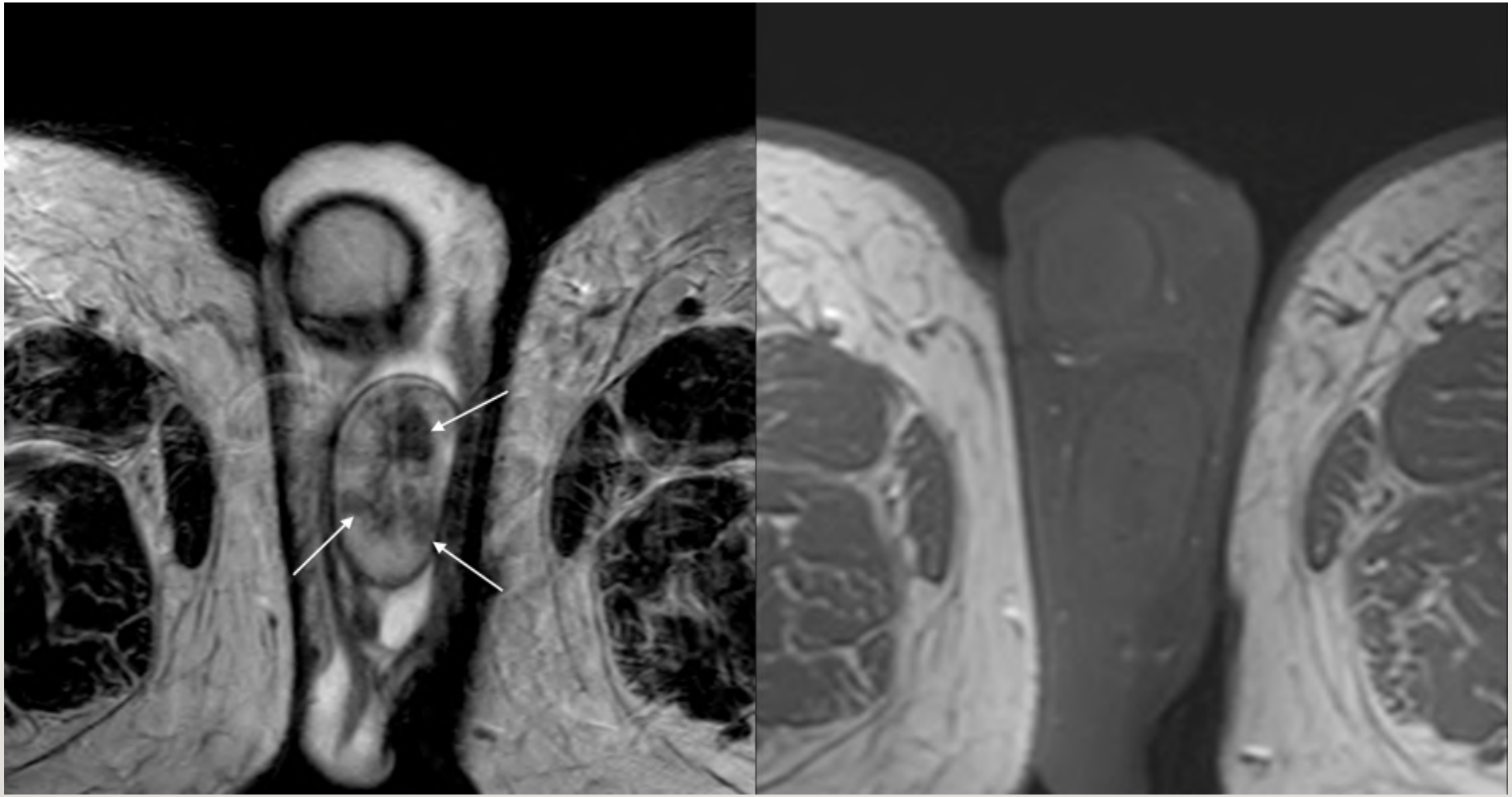


Figure 2: Metastasis of the right testis

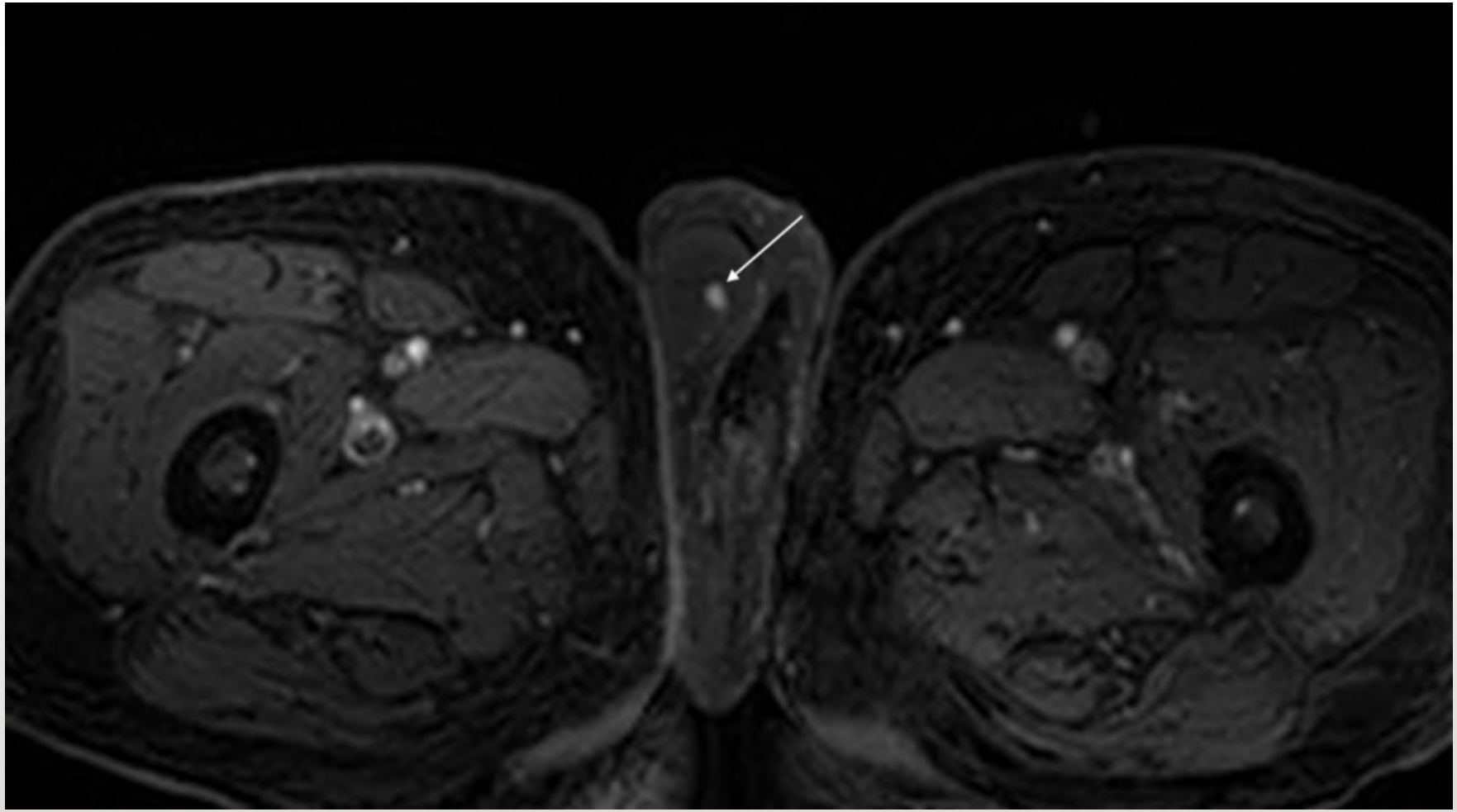
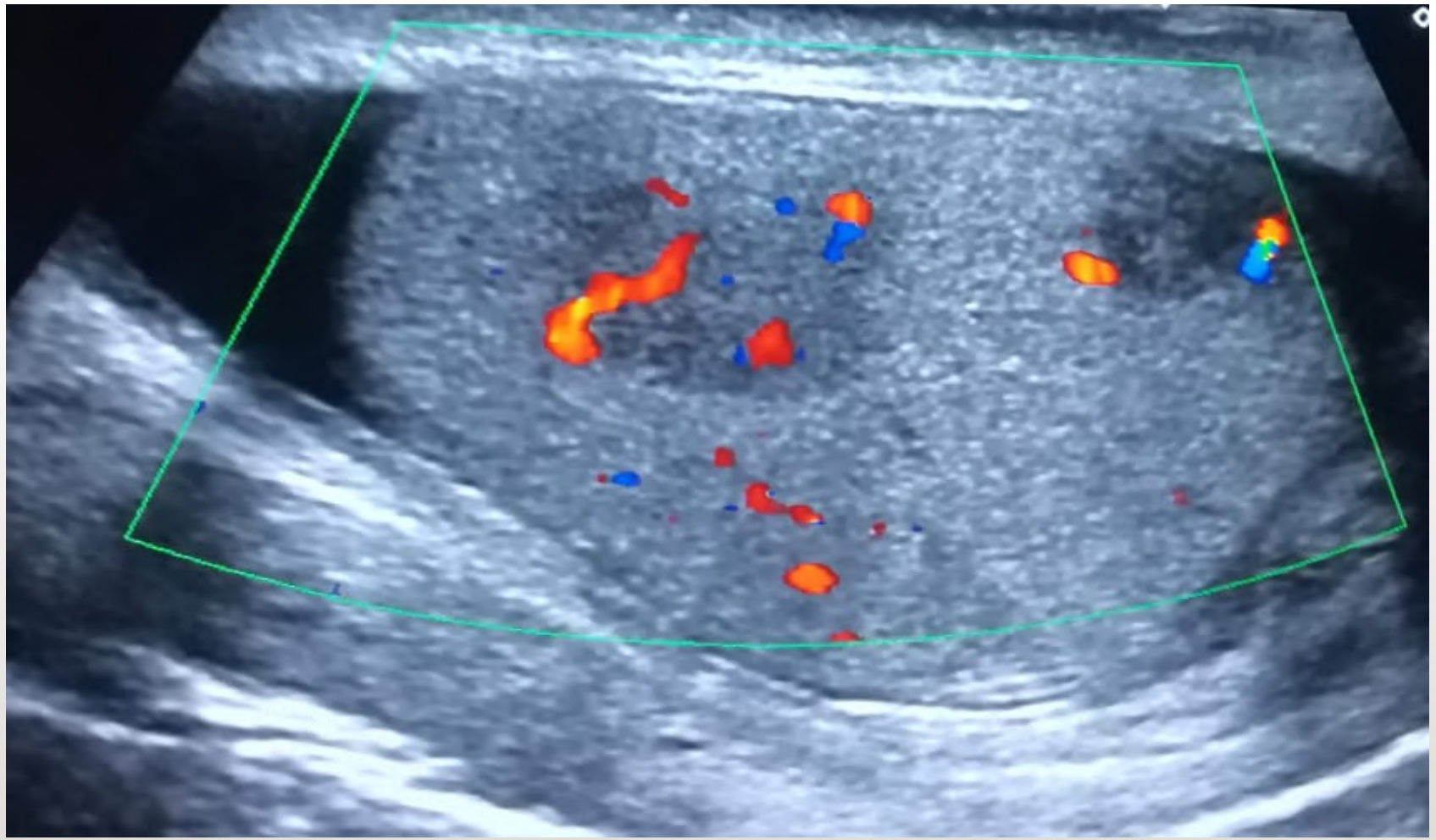


Figure 3: Doppler USG image of the lesions in the left testis



DISCUSSION

- Although prostate cancer is a common malignancy seen in male population and has frequent metastases, the metastasis to the testicles is rare because of its blood-testicular barrier*
- Testicular metastasis of prostate cancer is rarely seen as bilateral metastasis**
- Usually testicular metastasis occurs during the course of pre-existing cancer

* Richie JP, Steele GS. Neoplasms of the testis. In:Walsh PC, Retik AB, Vaughan ED Jr 2002 Campbell'sUrology, 8th edn. W.B. Saunders, Philadelphia, 2876-2919.
** Ulbright TM, Young RH. 2008 Metastatic carcinoma to the testis: A clinicopathologic analysis of 26 non incidental cases wit hemphasis on deceptive features. Am J SurgPathol 32: 1683-1693

DISCUSSION

- The average life expectancy of patients with prostate cancer varies between 6-18 months due to poor prognosis(*)

- Metastasis to testes may be the first finding of an undiagnosed cancer; may also be a finding of relapse after partial remissions of prostate cancer (**)

*Patel SR, Richardson RL, Kvols L: . 1989 ., Metastatic cancer to the testes: a report of 20 cases and review of the literature. J Urol. 142: 1003-1005
** Richie JP, Steele GS. Neoplasms of the testis. In:Walsh PC, Retik AB, Vaughan ED Jr 2002 Campbell'sUrology, 8th edn. W.B. Saunders, Philadelphia, 2876-2919

RESULT

- We believe that if patient presents with active complaints (pain, swelling etc.) or a mass in the testicle, we should evaluate further with scrotal ultrasonography at the time of diagnosis and follow-up.

- Following those, testicular biopsy or orchiectomy should be performed if seen necessary.

THANK YOU
FOR
PAYİNG ATTENTİON

RENAL EPITHELIOID ANGIOMYOLIPOMA: CASE REPORT

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28.11.2019

CASE REPORT

- 44 years old female patient
- She has admitted to the hospital with unexplained weight loss
- She has no previous important medical condition or a chronic disease, no family history of cancer
- No smoking or alcohol history

CASE REPORT

- The imaging studies revealed the presence of a left renal mass of 13x10 x 8 cm

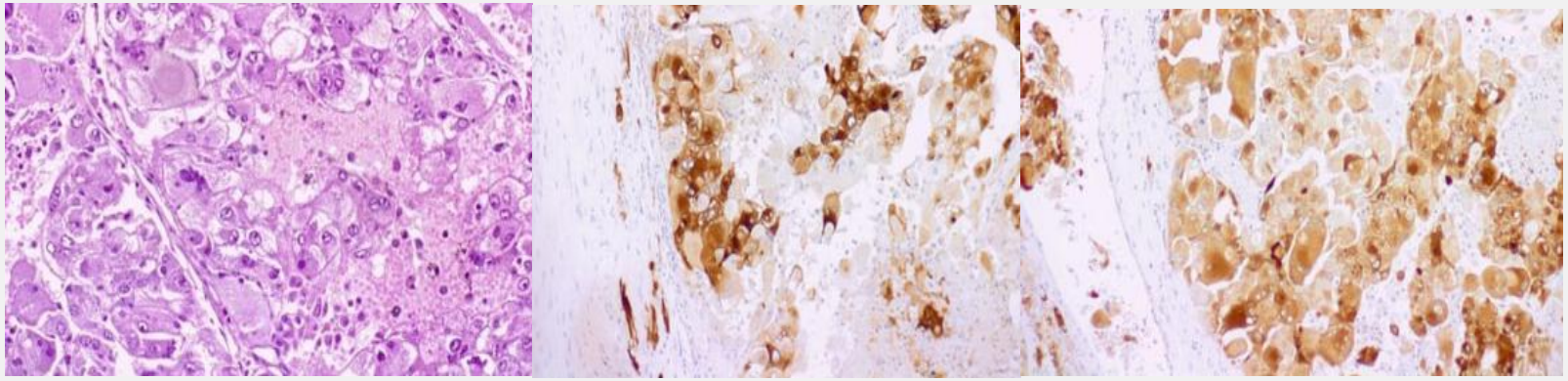
- The patient underwent a left radical nephrectomy (july 2015)

CASE REPORT

- The pathology was consistent with an epithelioid angiomyolipoma (EAML) with poor prognosis features
  - Size > 7 cm,
  - vascular and renal sinus invasion,
  - necrosis,
  - and severe atypia

PATHOLOGY REPORT

- The immunohistochemical profile revealed diffuse and intense expression of HMB-45 and Melan A, along with expression of smooth muscle actin and negativity for Vimentin, PAX8, and RCC.



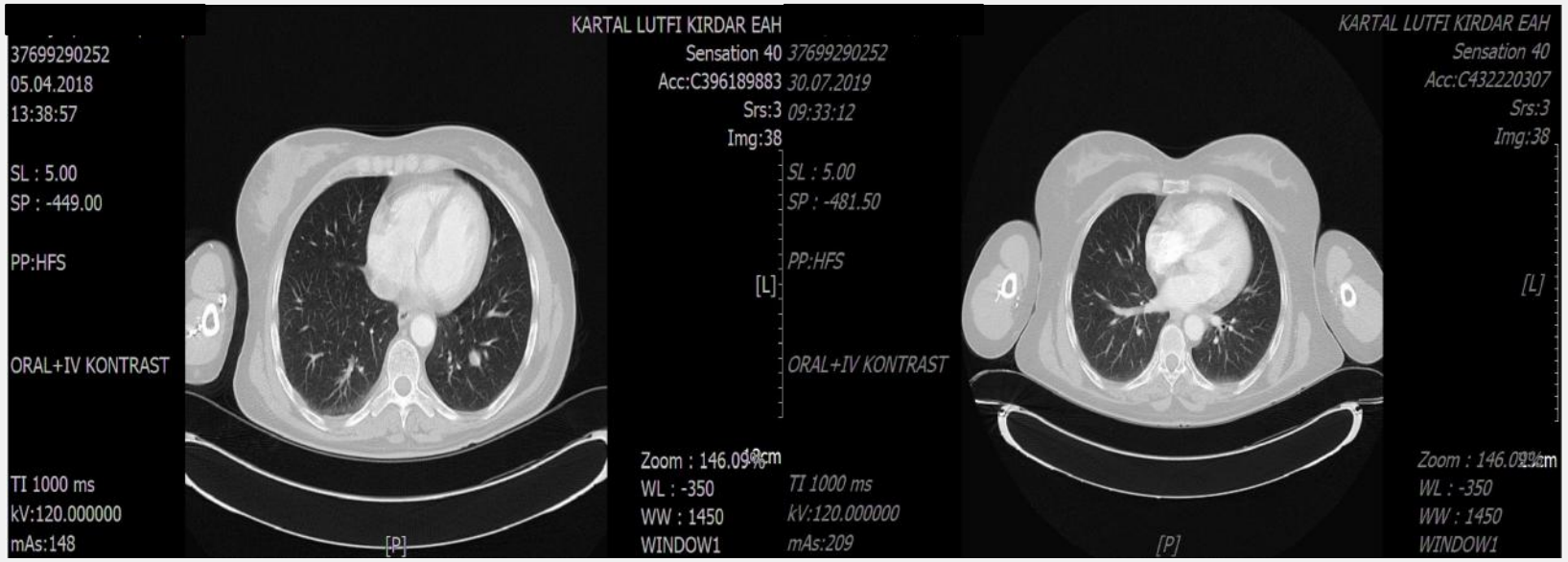
POST-OP MANAGEMENT

- After nephrectomy operation, the patient followed by the urology clinic for three years
- At July 2018, the patient developed multiple lung and abdominal lymph node metastasis
- A new surgical attempt considered to be unfeasible

TREATMENT

- We started systemic treatment with everolimus 10 mg/day (on August, 2018 due to the efficiency results througout the literature
- During the treatment, the treatment was well-tolerated with grade-1 intermittent diarrhea and grade-2 neutropenia, no dosage adjustment was required.

COMPLETE RESPONSE



COMPLETE RESPONSE

CASE REPORT

- At the 17th month of treatment, the patient is still in complete response and has an excellent performance status.

EPITHELIOID ANGIOMYOLIPOMA

- EAML can be sporadic or develop within the tuberous sclerosis complex syndrome, where mutations of *TSC1* or *TSC2* genes result in an increased activation of mTOR pathway.
- These neoplasms are mesenchymal in origin and comprise blood vessels, mature adipose tissue and fusiform cells similar to smooth muscle.

EPITHELIOID ANGIOMYOLIPOMA

- Angiomyolipomas (AML) are rare kidney tumors that occur in 0.3% of the population, 1% of those are epithelioid and 30% of those are reported to be malignant.
- One particular subtype characterized by the presence of an epithelioid cellular morphology, named epithelioid angiomyolipoma, and included in the family of perivascular epithelioid cell tumors (PEComas) can have malignant behaviour.

CONCLUSION

- Therapeutic experience with aggressive EAML is scarce.
- Most of the reports consist favorable responses
- mTOR inhibition potentially provide the therapeutic benefit for unresectable, metastatic EAML patients

Thank you for your attention