



# GERM HÜCRELİ TÜMÖRLER

İnteraktif Olgu Sunumu

Dr BENGÜ DEMİRAĞ

# Haziran 1999 erkek

- Başvuru Ekim 2014
- 2 aydır sağ testiste şişlik.
- Bitlis.
- Karın ağrısı ve şişlik ile Ankara'ya sevk.
- Ankara' da Üroloji AD' da yüksek inguinal orşiektomi ile opere.

# Fizik bakı

- Boy (<sub>189 cm</sub>), kilo(<sub>60 kg</sub>) yaş uyumlu.
- KN 88/dak, SS: 22/dak, TA: 110/75 mmHg
- Akciğerde dinlemekle solunum sesleri kaba
- Kardiyak bakı olağan
- Batında sağ inguinalde insizyon skarı, batında istemli defans, ancak ele gelen kitle yok, HSM yok
- Sağ testis yok (orşiektomi), sol olağan

# Laboratuvar

Hemogram; BKH:7770/mm<sup>3</sup>  
Hb 11,8 gr/dl  
MCV 84 fl  
Plt 409000/mm<sup>3</sup>

Koagülasyon; PZ 15,8 sn  
APTZ 31,4 sn  
Fibrinojen 892 mg/dl

Hormonal analizler; Ferritin 318 ng/dl  
**AFP 4123 ng/ml**  
**Beta HCG 10111 ml/umL**

Biokimyasal Tetkikler; Sedimantasyon 51 mm/saat  
Glukoz 92 mg/dl  
Üre 9 mg/dl  
Kreatinin 0,6 mg/dl  
AST 66 IU/lt  
ALT 52 IU/lt  
T. Bil 0,7 mg/dl

**LDH 733 IU/lt**

# Görüntüleme

- PA akciğer grafi: Yaygın nodüler görünüm
- Eko normal



>> ABDOMEN US, TM :

Karacięer uzun aks boyutu 158 mm ölçlmŖtir (YaŖ ile uyumlu normalin st sınırı: 141 mm). Konturları ve parankim ekojenitesi normaldir. En bykleri KC saę lob kubbesinde segment 8 de 44 x 40 mm boyutunda loble konturlu hiperekoien. sol portal dal komsuluęunda segment 4 te 25 x 28 mm boyutunda hiperekoien. sol lob

segment 2  
olarak deę  
Safra kesesi

Dalak parankim  
normalin st

Pankreas  
Paraaortik  
kistik- nekrotik  
VCI lmeni

Her iki btn  
ekojenitekte  
pelvis AP

Bilateral si  
Mesane k  
Internal ge  
Her iki alt  
Sol hemite

## **Karın – skrotal USG’ de ;**

**En byę krc saę lob kubbesinde 44\*40 mm olmak zere ok sayıda metastaz uyumlu solid lezyonlar.**

**Paraaortik alanda konglomere, nekroz uyumlu alanlar ieren metastatik LAP kmesi.**

**VCI lmeni iinde 8-9 cm kadar tromboz.**

**Saę testis opere, sol testiste mikrolithiazis.**

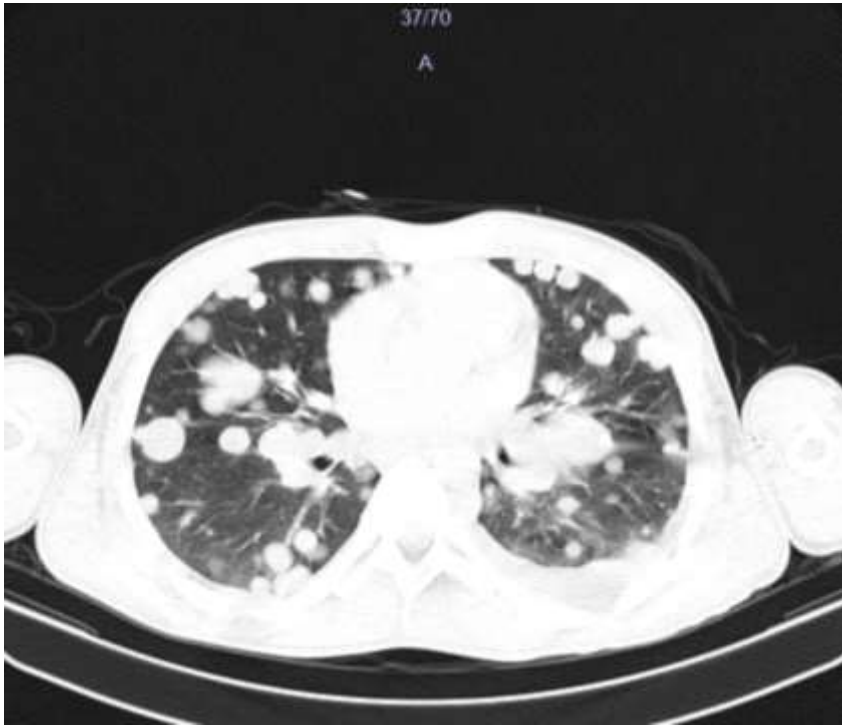
metastaz

uyumlu

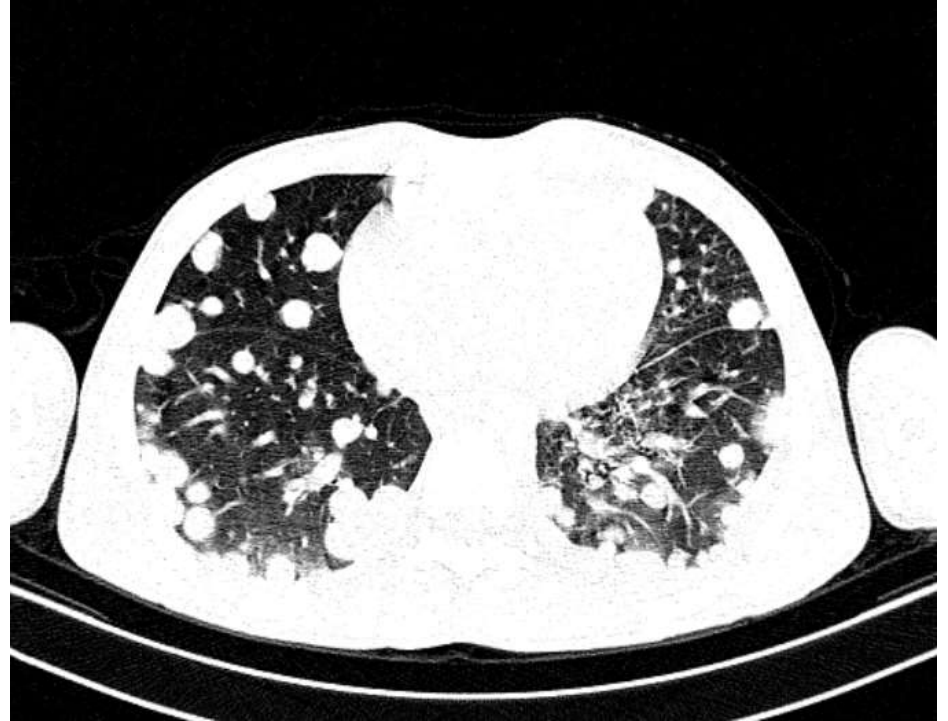
ierisinde

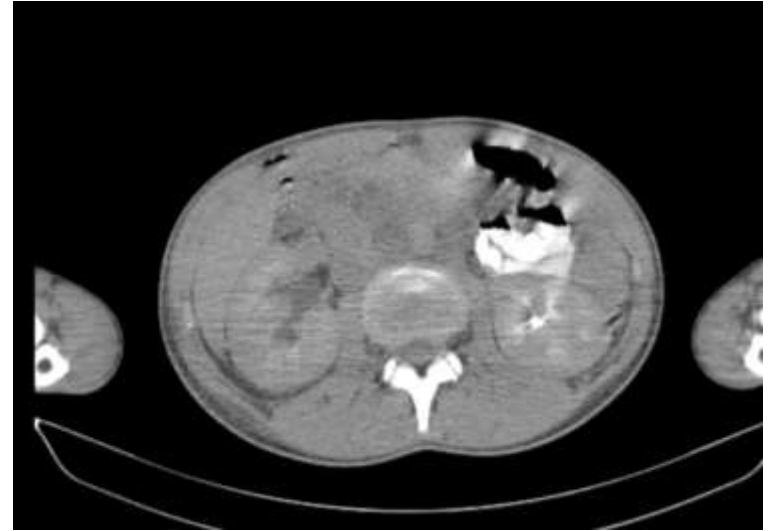
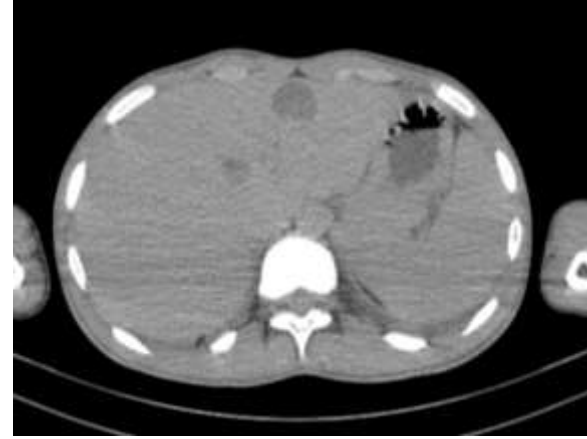
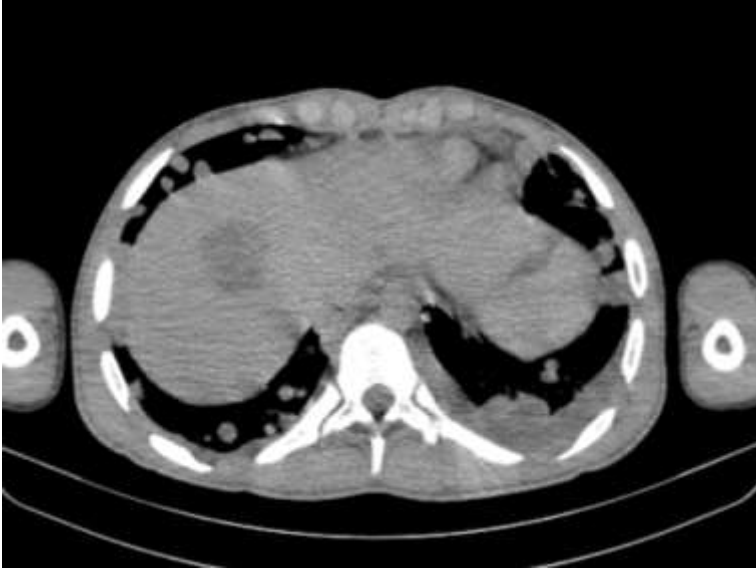
oldu

Renal



Tanıda Toraks BT Ekim 2014





**Tanıda karaciğer metastazları ve paraaortik metastatik LAP' ler**



**Kemik sintigrafisi: Kemik metastazı yok  
Kranial MR: normal.**

- Tümör trombüsü.
- DMA heparin.
- Preparatlar Ankara' dan istendi.
- Evreleme çalışmaları.

# Özetle;

- 15,5 yaş,
  - Evre 4
  - Testiküler Kanser
- 
- Mart 2015 Guidelines on Testicular Cancer  
European Association of Urology

**Table 4.2: TNM classification for testicular cancer (UICC, 2009, 7th edn. [54])**

<b>pT Primary tumour<sup>1</sup></b>			
pTX	Primary tumour cannot be assessed (see note 1)		
pT0	No evidence of primary tumour (e.g. histological scar in testis)		
pTis	Intratubular germ cell neoplasia (testicular intraepithelial neoplasia)		
pT1	Tumour limited to testis and epididymis without vascular/lymphatic invasion: tumour may invade tunica albuginea but not tunica vaginalis		
pT2	Tumour limited to testis and epididymis with vascular/lymphatic invasion, or tumour extending through tunica albuginea with involvement of tunica vaginalis		
pT3	Tumour invades spermatic cord with or without vascular/lymphatic invasion		
pT4	Tumour invades scrotum with or without vascular/lymphatic invasion		
<b>N Regional lymph nodes clinical</b>			
NX	Regional lymph nodes cannot be assessed		
N0	No regional lymph node metastasis		
N1	Metastasis with a lymph node mass 2 cm or less in greatest dimension or multiple lymph nodes, none more than 2 cm in greatest dimension		
N2	Metastasis with a lymph node mass more than 2 cm but not more than 5 cm in greatest dimension, or multiple lymph nodes, any one mass more than 2 cm but not more than 5 cm in greatest dimension		
N3	Metastasis with a lymph node mass more than 5 cm in greatest dimension		
<b>pN Pathological</b>			
pNX	Regional lymph nodes cannot be assessed		
pN0	No regional lymph node metastasis		
pN1	Metastasis with a lymph node mass 2 cm or less in greatest dimension and 5 or fewer positive nodes, none more than 2 cm in greatest dimension		
pN2	Metastasis with a lymph node mass more than 2 cm but not more than 5 cm in greatest dimension; or more than 5 nodes positive, none more than 5 cm; or evidence of extranodal extension of tumour		
pN3	Metastasis with a lymph node mass more than 5 cm in greatest dimension		
<b>M Distant metastasis</b>			
MX	Distant metastasis cannot be assessed		
M0	No distant metastasis		
M1	Distant metastasis		
	M1a Non-regional lymph node(s) or lung		
	M1b Other sites		
<b>S Serum tumour markers</b>			
SX	Serum marker studies not available or not performed		
S0	Serum marker study levels within normal limits		
	<b>LDH (U/l)</b>	<b>hCG (mIU/mL)</b>	<b>AFP (ng/mL)</b>
S1	< 1.5 x N and	< 5,000 and	< 1,000
S2	1.5-10 x N or	5,000-50,000 or	1,000-10,000
S3	> 10 x N or	> 50,000 or	> 10,000

## Stage grouping

Stage 0	pTis	N0	M0	S0,SX
Stage I	pT1-T4	N0	M0	SX
Stage IA	pT1	N0	M0	S0
Stage IB	pT2 - pT4	N0	M0	S0
Stage IS	Any patient/TX	N0	M0	S1-3
Stage II	Any patient/TX	N1-N3	M0	SX
Stage IIA	Any patient/TX	N1	M0	S0
	Any patient/TX	N1	M0	S1
Stage IIB	Any patient/TX	N2	M0	S0
	Any patient/TX	N2	M0	S1
Stage IIC	Any patient/TX	N3	M0	S0
	Any patient/TX	N3	M0	S1
Stage III	Any patient/TX	Any N	M1a	SX
Stage IIIA	Any patient/TX	Any N	M1a	S0
	Any patient/TX	Any N	M1a	S1
Stage IIIB	Any patient/TX	N1-N3	M0	S2
	Any patient/TX	Any N	M1a	S2
Stage IIIC	Any patient/TX	N1-N3	M0	S3
	Any patient/TX	Any N	M1a	S3
	Any patient/TX	Any N	M1b	Any S

**Table 4.3: Prognostic-based staging system for metastatic germ cell cancer (International Germ Cell Cancer Collaborative Group)\***

<b>Good-prognosis group</b>	
<p><i>Non-seminoma (56% of cases)</i></p> <p>5-year PFS 89%</p> <p>5-year survival 92%</p>	<p><i>All of the following criteria:</i></p> <ul style="list-style-type: none"> <li>• Testis/retroperitoneal primary</li> <li>• No non-pulmonary visceral metastases</li> <li>• AFP &lt; 1,000 ng/mL</li> <li>• hCG &lt; 5,000 IU/L (1,000 ng/mL)</li> <li>• LDH &lt; 1.5 x ULN</li> </ul>
<p><i>Seminoma (90% of cases)</i></p> <p>5-year PFS 82%</p> <p>5-year survival 86%</p>	<p><i>All of the following criteria:</i></p> <ul style="list-style-type: none"> <li>• Any primary site</li> <li>• No non-pulmonary visceral metastases</li> <li>• Normal AFP</li> <li>• Any hCG</li> <li>• Any LDH</li> </ul>
<b>Intermediate prognosis group</b>	
<p><i>Non-seminoma (28% of cases)</i></p> <p>5-year PFS 75%</p> <p>5-year survival 80%</p>	<ul style="list-style-type: none"> <li>• Testis/retroperitoneal primary</li> <li>• No non-pulmonary visceral metastases</li> <li>• AFP 1,000 - 10,000 ng/mL or</li> <li>• hCG 5,000 - 50,000 IU/L or</li> <li>• LDH 1.5 - 10 x ULN</li> </ul>
<p><i>Seminoma (10% of cases)</i></p> <p>5-year PFS 67%</p> <p>5-year survival 72%</p>	<p><i>All of the following criteria:</i></p> <ul style="list-style-type: none"> <li>• Any primary site</li> <li>• Non-pulmonary visceral metastases</li> <li>• Normal AFP</li> <li>• Any hCG</li> <li>• Any LDH</li> </ul>
<b>Poor prognosis group</b>	
<p><i>Non-seminoma (16% of cases)</i></p> <p>5-year PFS 41%</p> <p>5-year survival 48%</p>	<p><i>Any of the following criteria:</i></p> <ul style="list-style-type: none"> <li>• Mediastinal primary</li> <li>• Non-pulmonary visceral metastases</li> <li>• AFP &gt; 10,000 ng/mL or</li> <li>• hCG &gt; 50,000 IU/L (10,000 ng/mL) or</li> <li>• LDH &gt; 10 x ULN</li> </ul>
<p><i>Seminoma</i></p>	<p>No patients classified as poor prognosis</p>

# Patoloji

## • ***Mikst germ hücreli tümör***

(embriyonel karsinom, yolk salk tümörü, immatür teratom).

- 5,5\*3,5\*3,5 cm tümör.
- Cerrahi sınırdaki tümör pozitif.
- Epididim, hiler yağ doku, spermatik kordda, tunika vaginalis' te tümör pozitif.
- Lenfo-vasküler invazyon pozitif.
- Lenf nodunda tümör pozitif.
- Tümörde yaygın nekroz.

**Yatışının 6. gününde kemoterapi olarak tedavisi başlandı.**

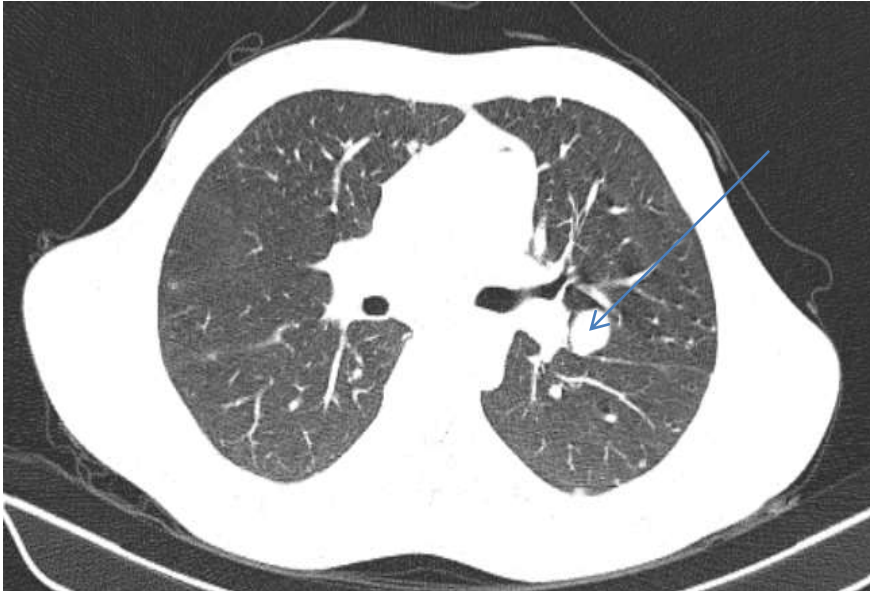
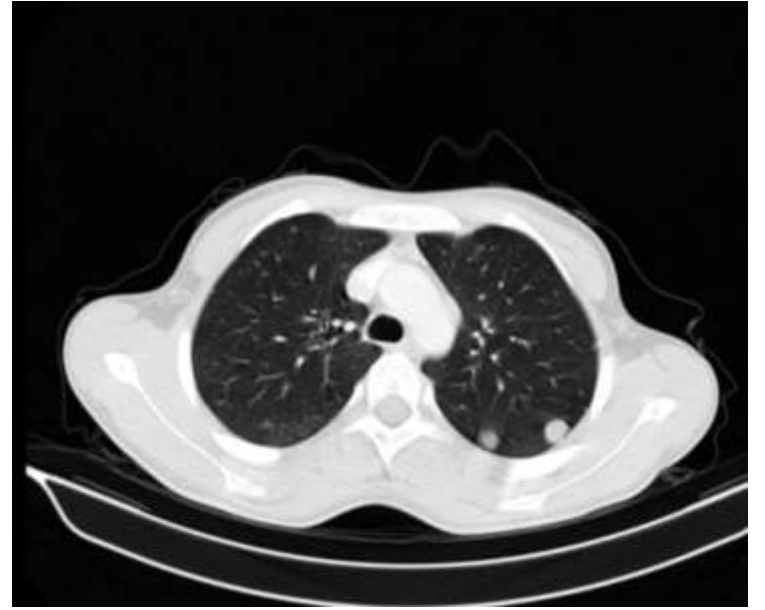
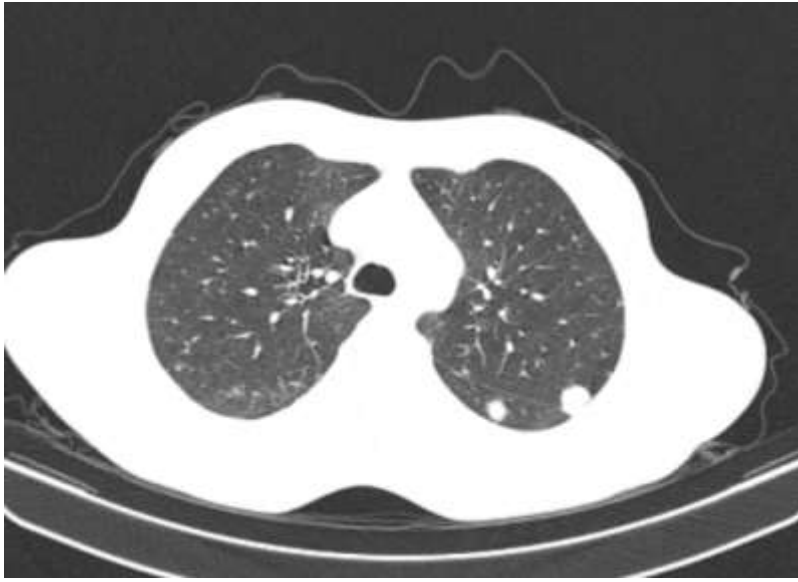
# Kemoterapi

## PEB şeması

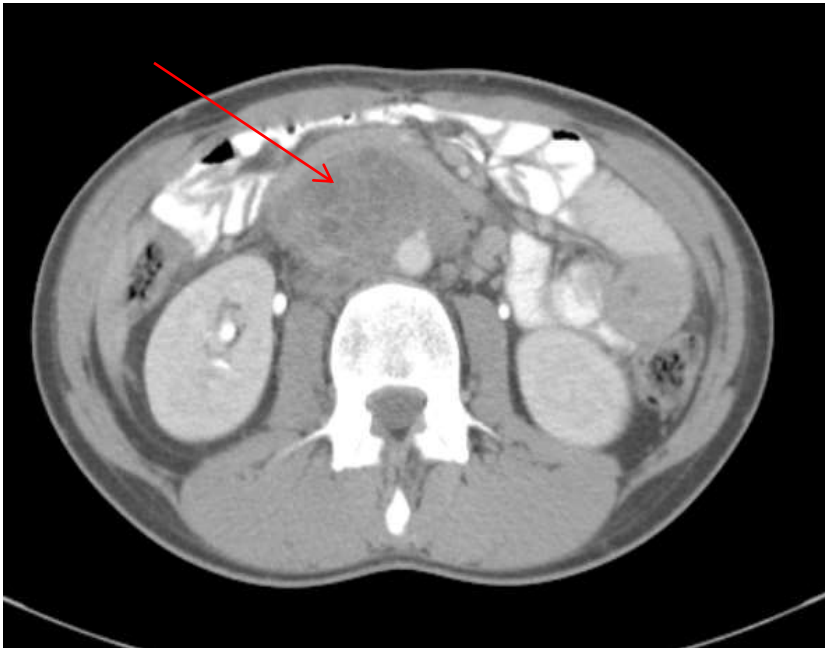
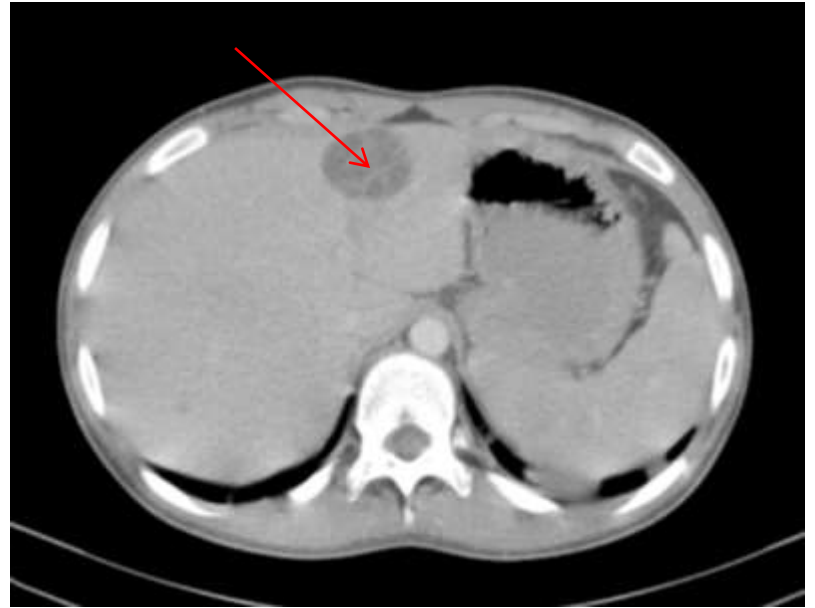
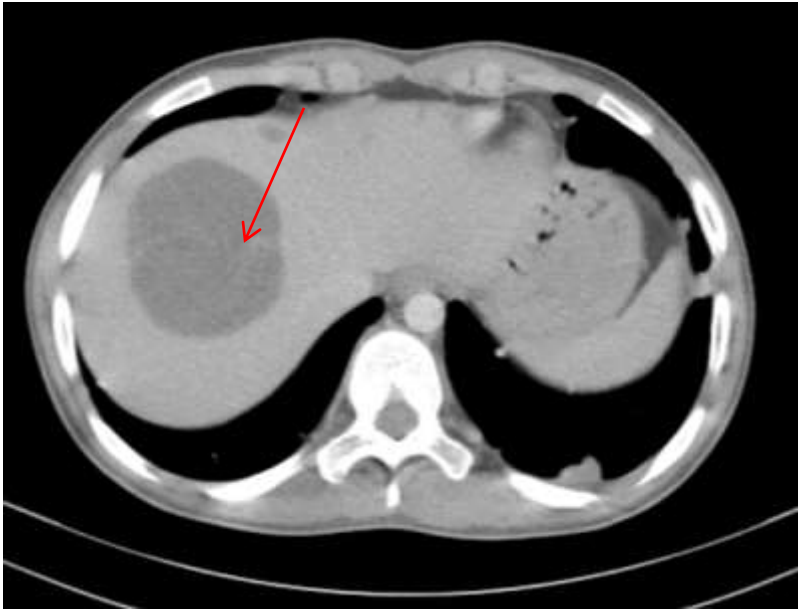
- Cisplatin 20 mg/m<sup>2</sup>/gün × 5 gün
- Vp16 100 mg/m<sup>2</sup>/gün × 5 gün
- Bleomisin 15 IU/m<sup>2</sup>



3 k r sonra kontrol



Sol hiler alanda yaklaşık 2,5x 2 cm boyutlarında hipodens (nekrotik?) LAP



## 3 k r sonunda;

- Toraks BT' de metastaz sayı ve boyutlarında gerileme.
- Karaciğer metastazları kistik hale dönüş rken boyutlarının artma.
- AFP 6,4 ng/ml
- Beta HCG 2,6 ml/umL

# Ne yaparsınız?

- 1- Kemoterapiye devam
- 2- Biopsi

# Konsej

- Kemoterapiye devam.
- PET-BT.

# PET BT

- 4. kürden sonra.
- Her iki akciğerde metabolik olmayan multipl nodüller.
- Karaciğer her iki loba metabolik olmayan lezyonlar
- Mezenter trunkustan iliak bifurkasyona kadar hafif hipermetabolik konglomere lenf nodları.

# Konsej

- Lezyonlarda SUV deęerleri max 3,6
- Canlı tümör olasılıęı düşük.
- Kemoterapiye devam.
- 6 kr sonra hem BT hem MR ile kontrol.



6 k r sonra

# Görüntüleme

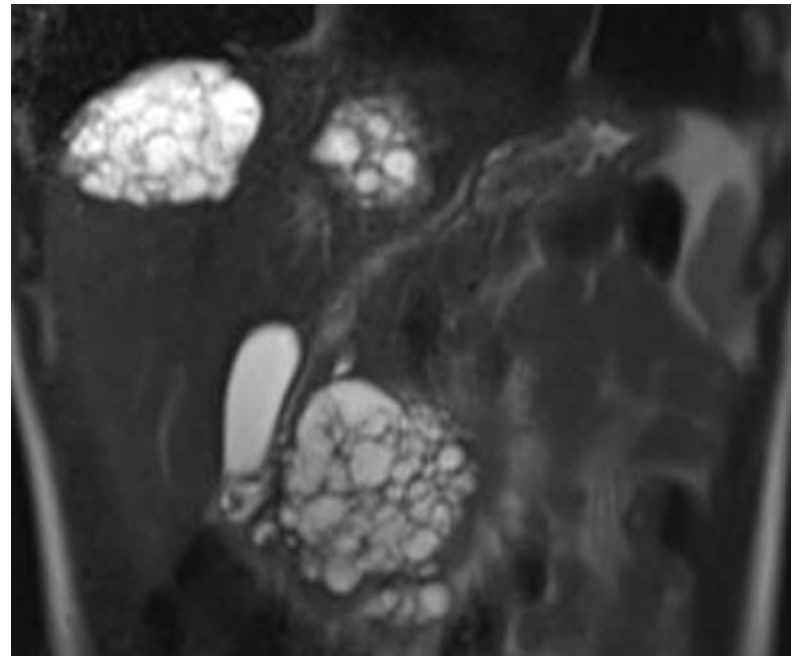
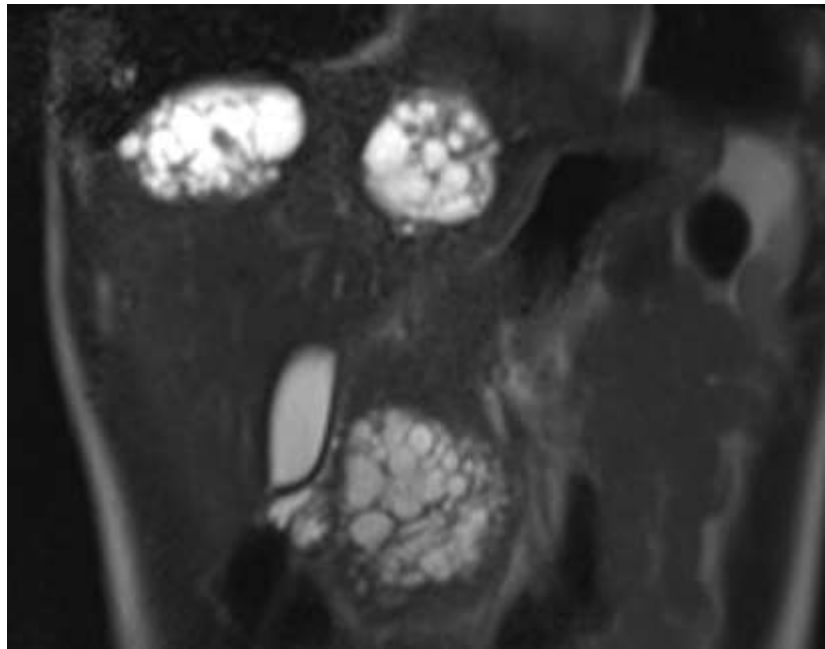
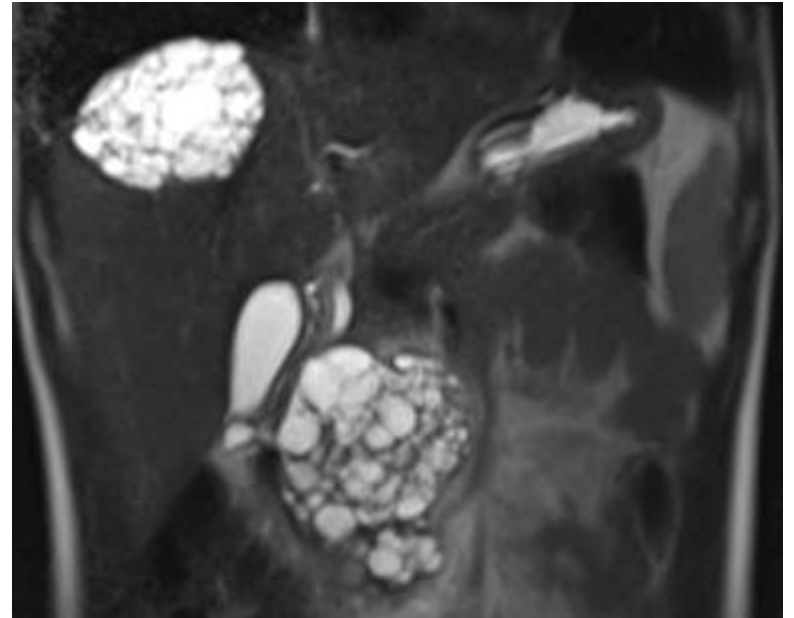
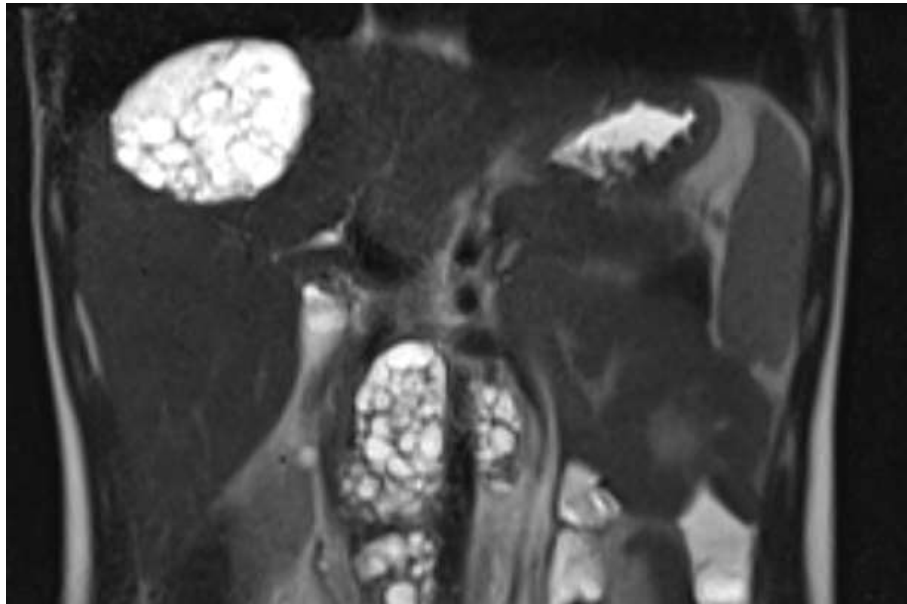
- KT sonrası BT ve MR' da toraks ve batin lezyonları stabil olarak devam etmekte.

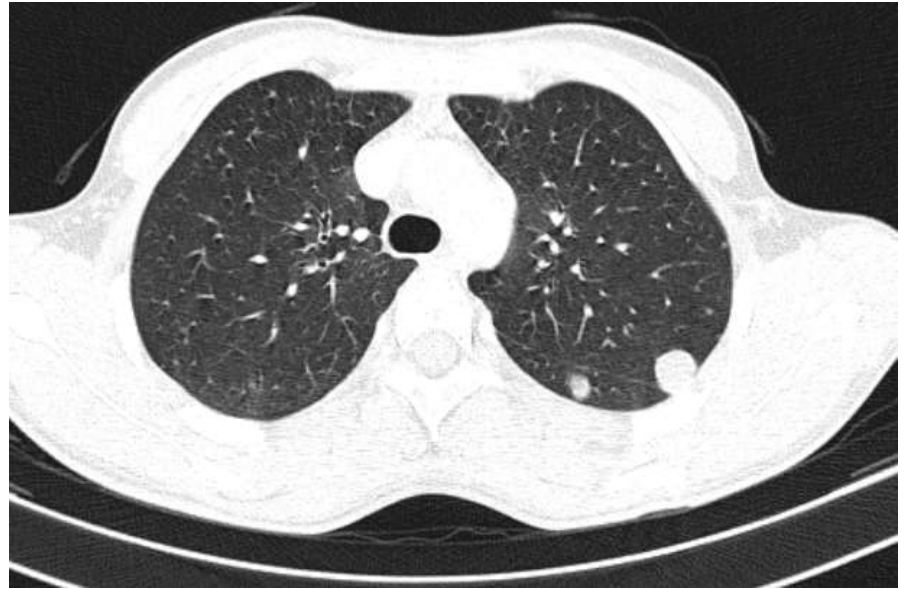


**TANIDA**



**6 KÜR KEMOTERAPİ SONRASI**





# 6 krn sonunda;

- Tmr markerları normal.
- Bir nceki grntleme ile boyut ve grnt deęiřiklięi gstermeyen karın ii, krc ve akc' de rezid tmrler.

# Ne yaparsınız?

- 1-Biopsi - Cerrahi
- 2-Kemoterapi protokol deęişiklięi

# Testiküler Ca IGCCSG Guideline 2015

- Poor prognoz
- 5 yıllık PFS %45 – 50.
- 4 kür sonra hastalar rezidü için operasyon.
- Postop rezidü varsa ya da prognostik kötü grupta ise 2 kür daha adjuvan KT.
- Rezidüler rezektabl ise çıkarılmalı.



**Non seminom testiküler germ hücreli  
tümörlerde BEP tedavisi sonrası;  
%6-10 canlı tümör  
%50 matür teratom  
%40 nekrotik fibrotik doku**

Carver BS, Serio AM, Bajorin D. Improved clinical outcome in recent years for men with metastatic nonseminomatous germ cells tumors. J Clin 2007 Dec 10;25(35):5603-8.

**Nonseminomatöz testiküler germ hücreli  
tümörlerde BT görüntüleme >1 cm rezidü  
kitle varsa son kemoterapiden sonraki 2-6  
hafta içinde tümör rezeksiyonu mutlak  
önerilmekte.**

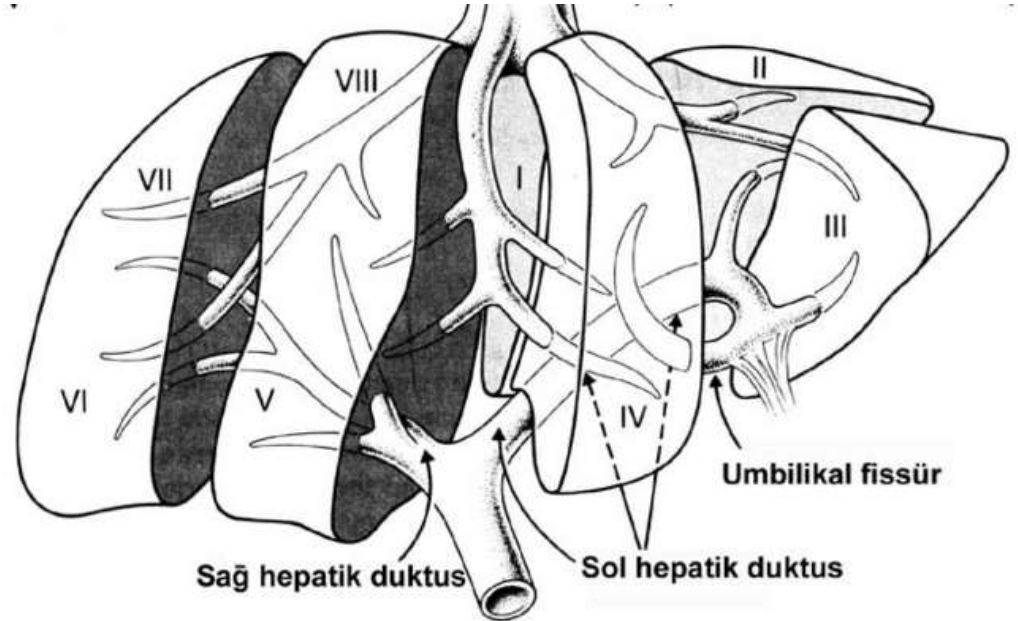
Toner GC. Adjunctive surgery after chemotherapy for nonseminomatous germ cell tumors: recommendations for patient selection. J Clin Oncol 1990 Oct;8(10):1683-94

Donohue JP. Correlation of CT changes and historical findings in 80 patients having radical retroperitoneal lymph node dissection after chemotherapy for testis cancer. J Urol 1987 Jun;137(6):1176-9

# Konseý

- Cerrahi eksplorasyon.

- İlk operasyon 21-04-2015 EÜTF.
- Karaciğer 7-8 segmentektomi (9\*8\*4 cm), karaciğer 4 segmentektomi (2,7\*1\*1 cm) karaciğer sol lobektomi (5,5\*5\*3 cm) ve karın içi lezyonların (11\*7\*6 cm) tamamı çıkarıldı.



# Patoloji

**Matür teratomatöz odaklar.**

- İlk operasyondan iki hafta sonra 05-05-2015
- Toraks cerrahisi

**Patoloji : Matür teratom.**

## 7.5.6

**Guidelines for the treatment of metastatic germ cell tumours**

	LE	GR
Low volume NSGCT stage IIA/B with elevated markers should be treated like 'good or intermediate prognosis' advanced NSGCT, with three or four cycles of BEP.	2	A
In stage IIA/B without marker elevation, histology can be gained by RPLND or biopsy. A repeat staging can be performed after six weeks of surveillance before final decision on further treatment.	3	B
In metastatic NSGCT ( $\geq$ stage IIC) with a good prognosis, three courses of BEP is the primary treatment of choice.	1	A
In metastatic NSGCT with an intermediate prognosis, the primary treatment of choice is four courses of standard BEP.	1	A
In metastatic NSGCT with a poor prognosis, the primary treatment of choice is one cycle of BEP, followed by tumour marker assessment after 3 weeks: in the case of an unfavourable decline, chemotherapy intensification should be initiated; in the case of a favourable decline, BEP should be continued up to a total of four cycles.	1	A
Surgical resection of residual masses after chemotherapy in NSGCT is indicated in the case of visible residual masses and when serum levels of tumour markers are normal or normalising.	2	A
Seminoma CSII A/B can initially be treated with radiotherapy. When necessary, chemotherapy can be used as a salvage treatment with the same schedule as for the corresponding prognostic groups of NSGCT.	2	B
In seminoma stage CS IIA/B, chemotherapy (3 x BEP or 4 x EP, in good prognosis) is an alternative to radiotherapy. It appears that 3 x BEP or 4 x EP achieve a similar level of disease control.	3	B
Seminoma stage IIC and higher should be treated with primary chemotherapy according to the same principles used for NSGCT.	1	A

EP = epoxide, cisplatin; GR = grade of recommendation; NSGCT = non-seminomatous germ cell tumour; BEP = cisplatin, epoxide, bleomycin; RPLND = retroperitoneal lymph node dissection.



# Alınan sonuçlarla karar

- Tm markerları,
- Batın USG,
- Toraks BT,
- Gereğinde MR ile yakın klinik izlemi.

**Nisan 2016 1 yıldır tedavisiz  
remisyonda.**



# Özetle;

- BEP şeması ilk tercih olmakla beraber istenilen tümör marker düzey azalmasını sağlamaması durumunda PEI.
- Metastatik germ hücreli tümörlerde kemoterapi sonrası rezidü tümörler >1 cm ise ve rezeksiyona uygun ise mutlaka çıkarılmalı.
- Kötü prognostik grupta yer alan hasta grubunda yakın izlem önemli.



**Sabrınız için teşekkürler**