



Avaliação radiológica no cancer de testículo



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Mapa

- Estadiamento primário
- Avaliação de resposta pós-tratamento
- Dúvidas radiológicas

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Guidelines

Guidelines on Testicular Cancer: 2015 Update

Peter Albers^{a,}, Walter Albrecht^b, Ferran Algaba^c, Carsten Bokemeyer^d,
Gabriella Cohn-Cedermark^e, Karim Fizazi^f, Alan Horwich^g, Maria Pilar Laguna^h,
Nicola Nicolaiⁱ, Jan Oldenburg^j*

2. Evidence acquisition

A multidisciplinary team of urologists, medical oncologists, radiation oncologists, and a pathologist were involved in producing this document, which is based on a semi-structured review of the literature up to February 2015. This publication focuses on the most important changes and



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NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®)

Testicular Cancer

Version 2.2016



NCCN Guidelines Version 2.2016 Panel Members

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Estadiamento primário



Guidelines

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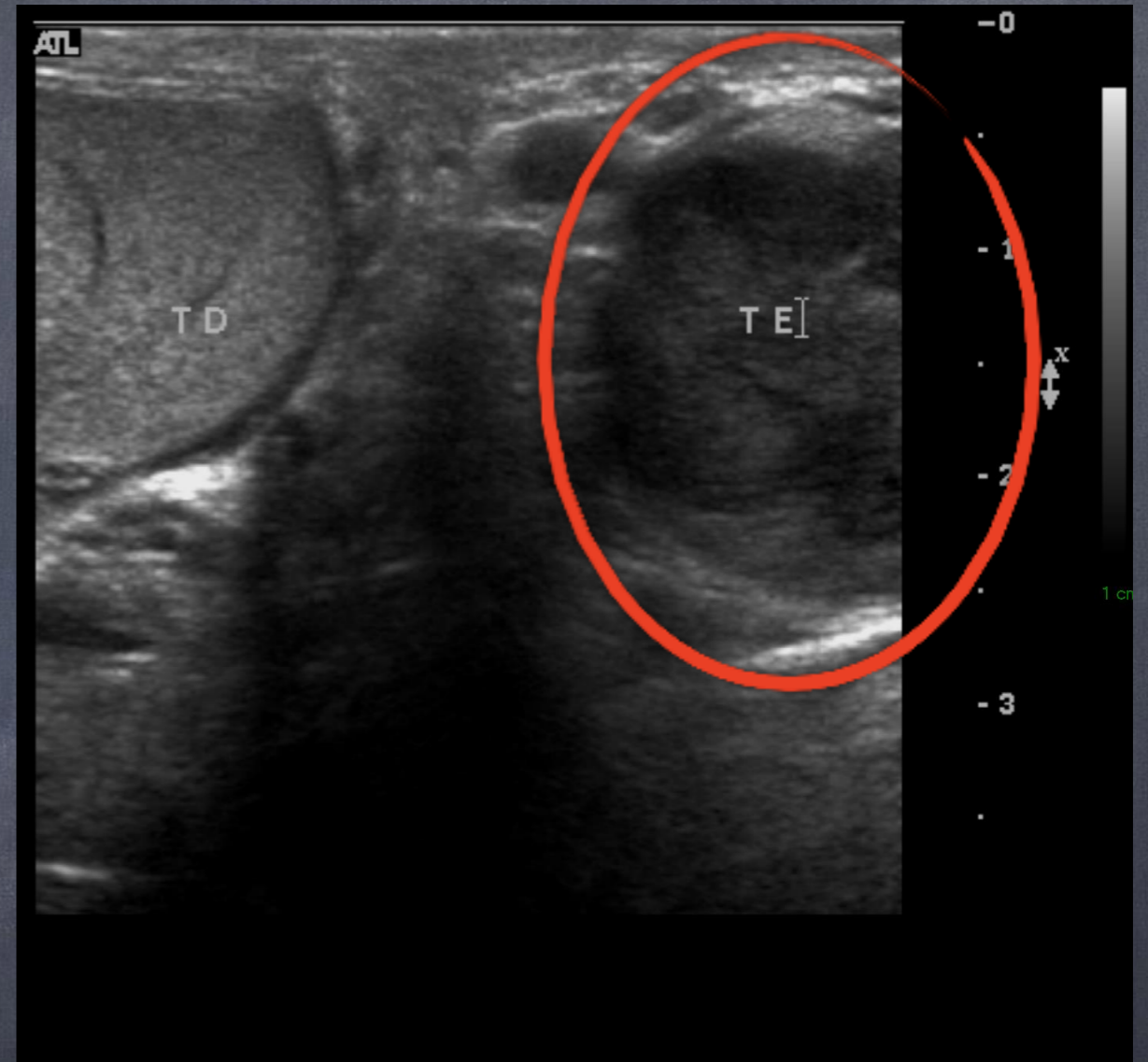
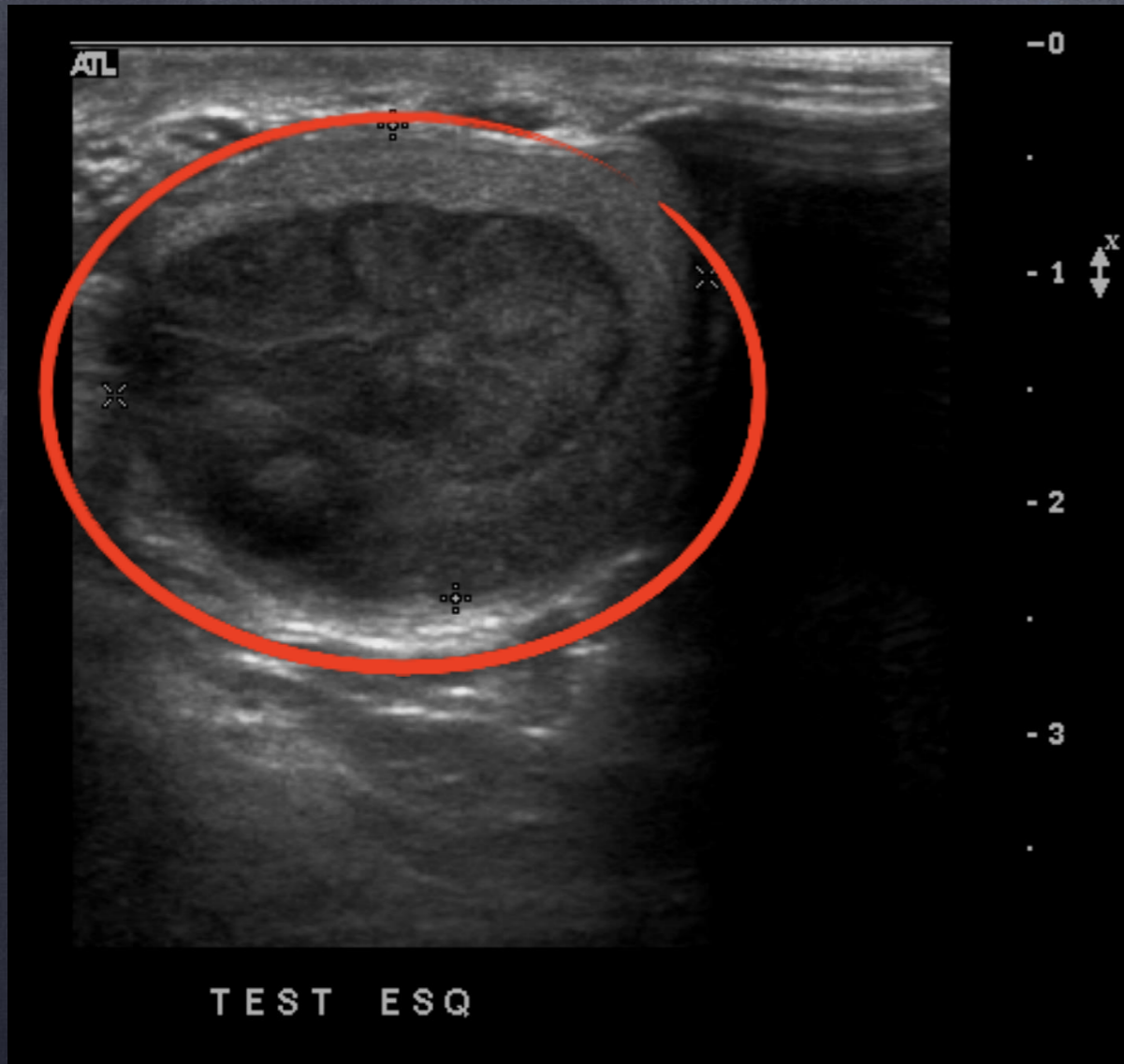
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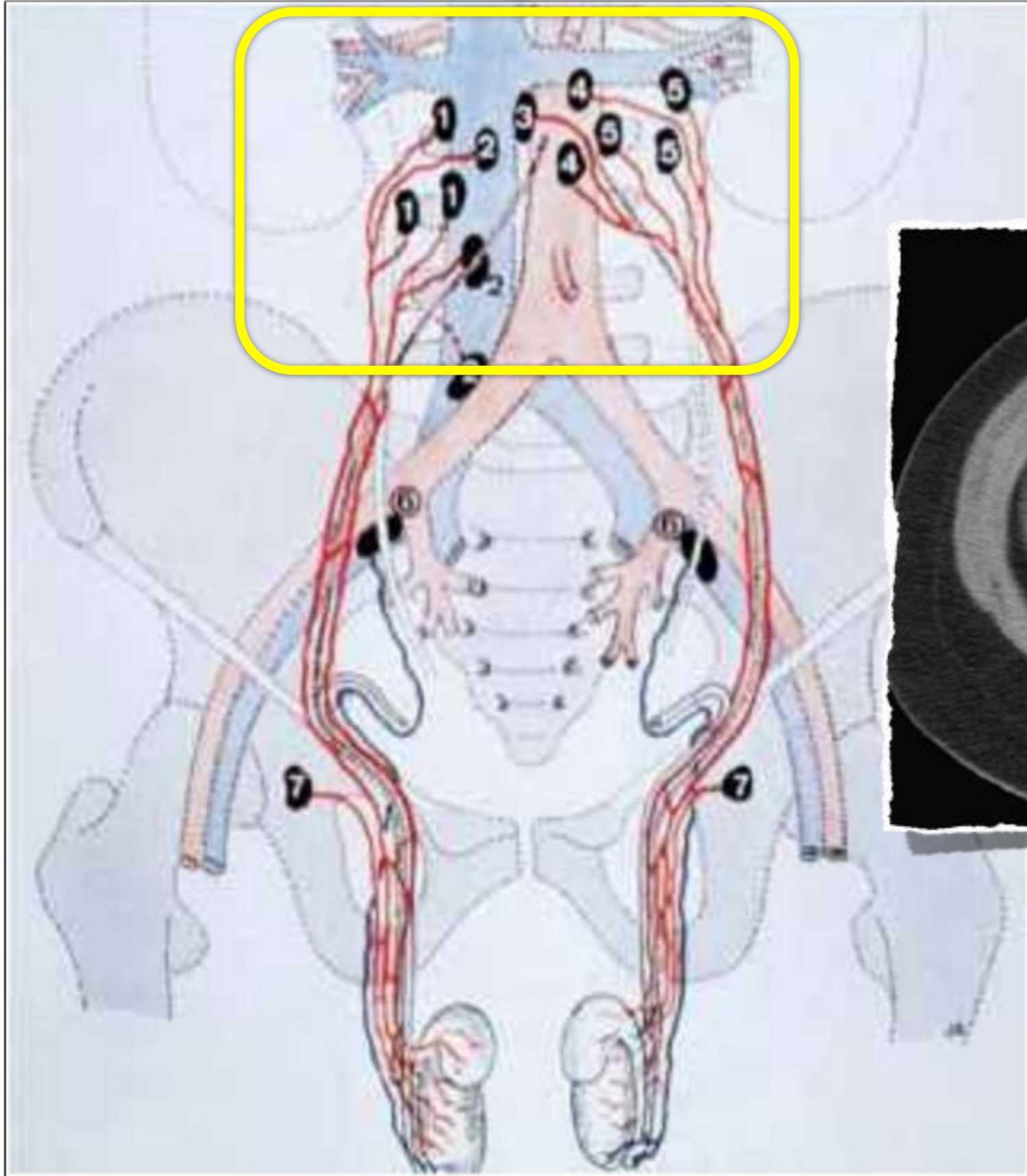
Table 1 – Recommended tests for staging at diagnosis

Test	Recommendation	GR
Serum tumour markers	α -Fetoprotein hCG Lactate dehydrogenase	A
Abdominopelvic CT	All patients	A
Chest CT	All patients	A
Testis ultrasound (bilateral)	All patients	A
Bone scan or spinal MRI	In the case of symptoms	
Brain scan (CT/MRI)	In the case of symptoms and patients with metastatic disease with multiple lung metastases and/or high β -hCG levels	

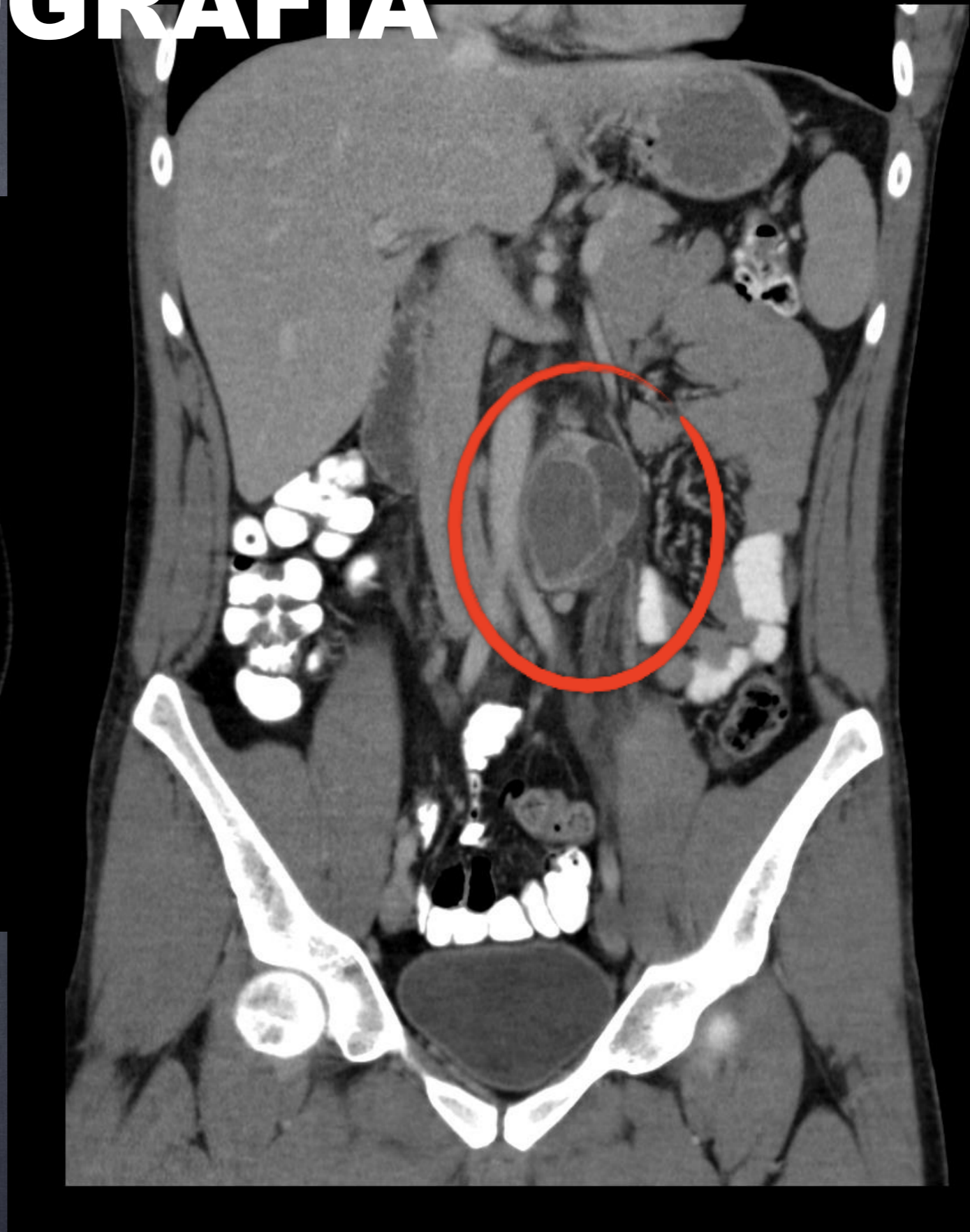
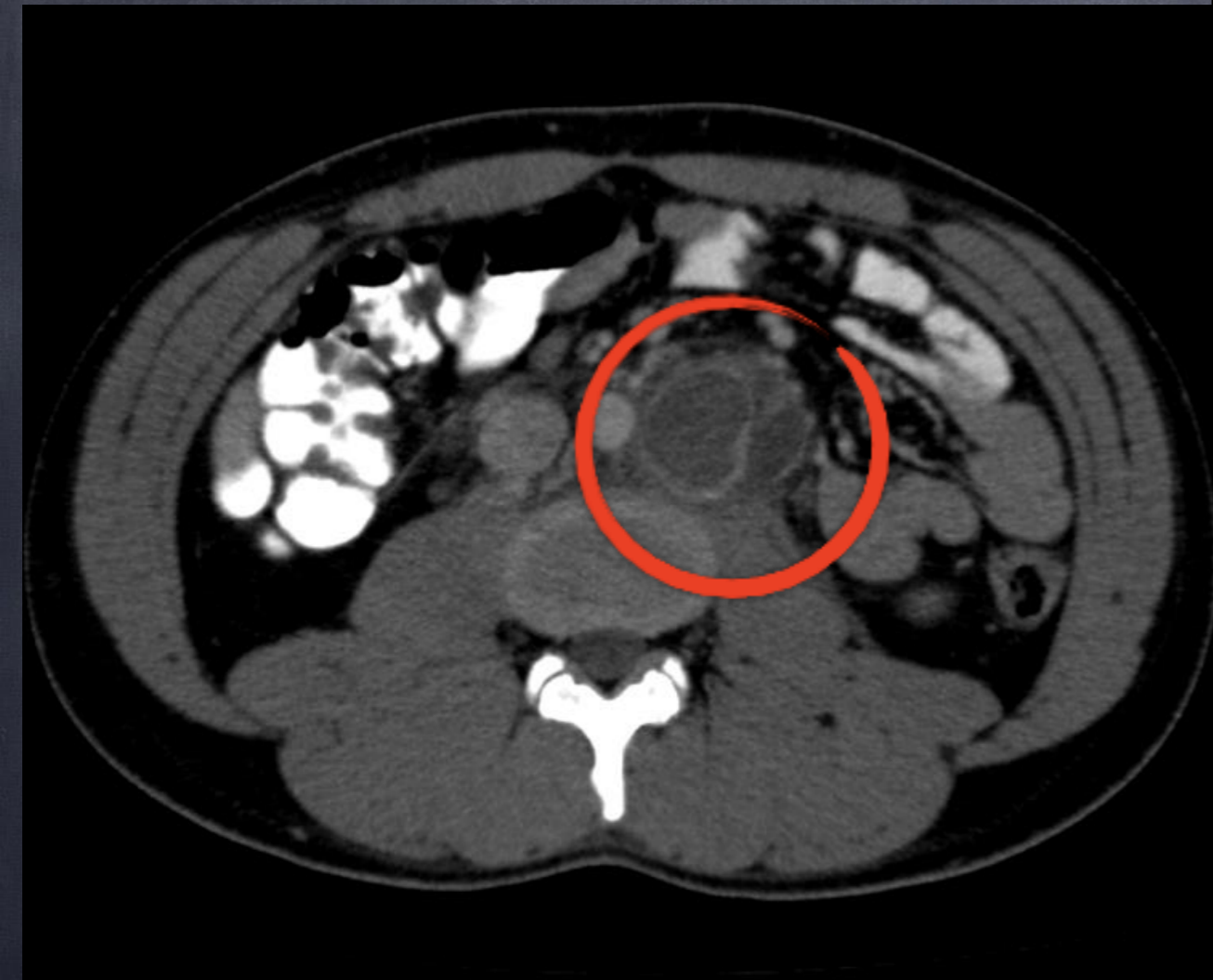
ULTRASSONOGRAFIA



Seminoma



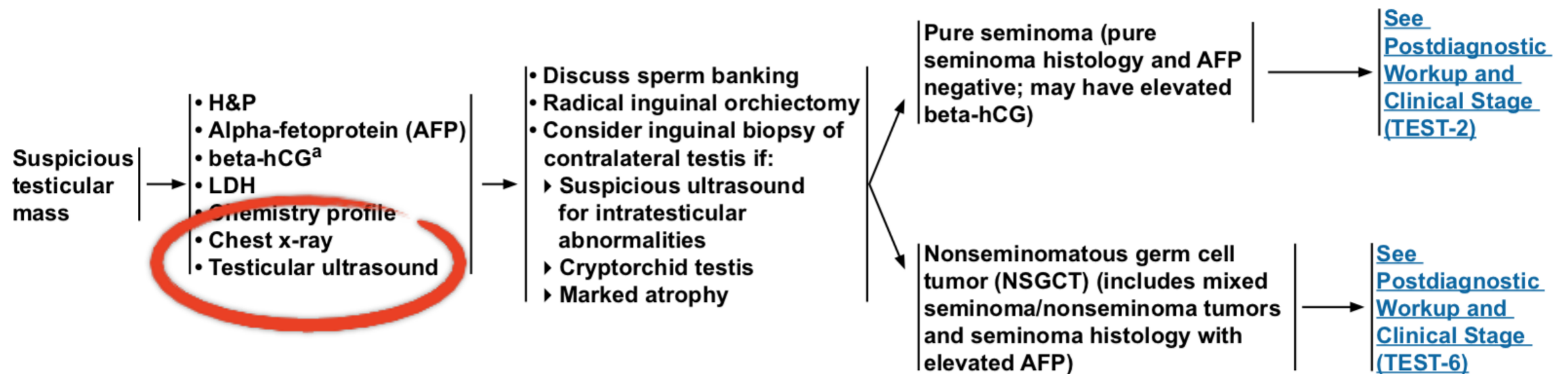
TOMOGRAFIA



WORKUP

PRIMARY TREATMENT^b

PATHOLOGIC DIAGNOSIS



Avaliação de resposta pós-tratamento

Seminoma pos-quirimio

Network[®]

STAGE IIA, IIB, IIC, III AFTER PRIMARY TREATMENT WITH CHEMOTHERAPY

POST-CHEMOTHERAPY MANAGEMENT

No residual mass or residual mass ≤ 3 cm and normal markers

Surveillance

- Chest, abdominal, pelvic CT scan
- Serum tumor

Residual mass (>3 cm)

PET scan (6 wks or

Negative

Surveillance

Positive

Consider RPLND, if technically feasible^l or Second-line chemotherapy^m

[See Second-Line Ther Nonseminoma \(TEST-](#)

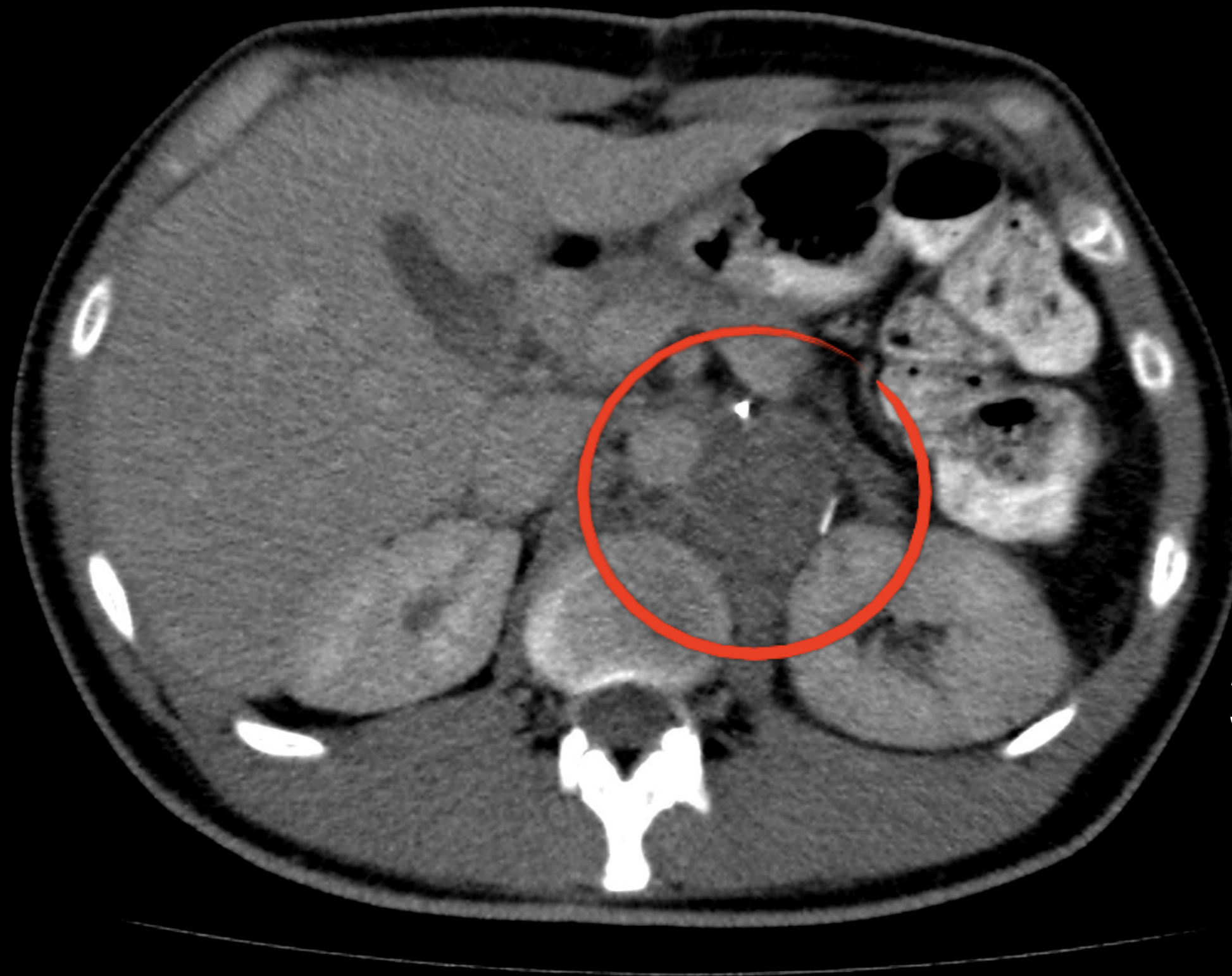
3.7. Residual tumour resection

3.7.1. Seminoma

A residual seminoma mass, irrespective of size, should not be primarily resected but should be controlled using imaging investigations and tumour markers.

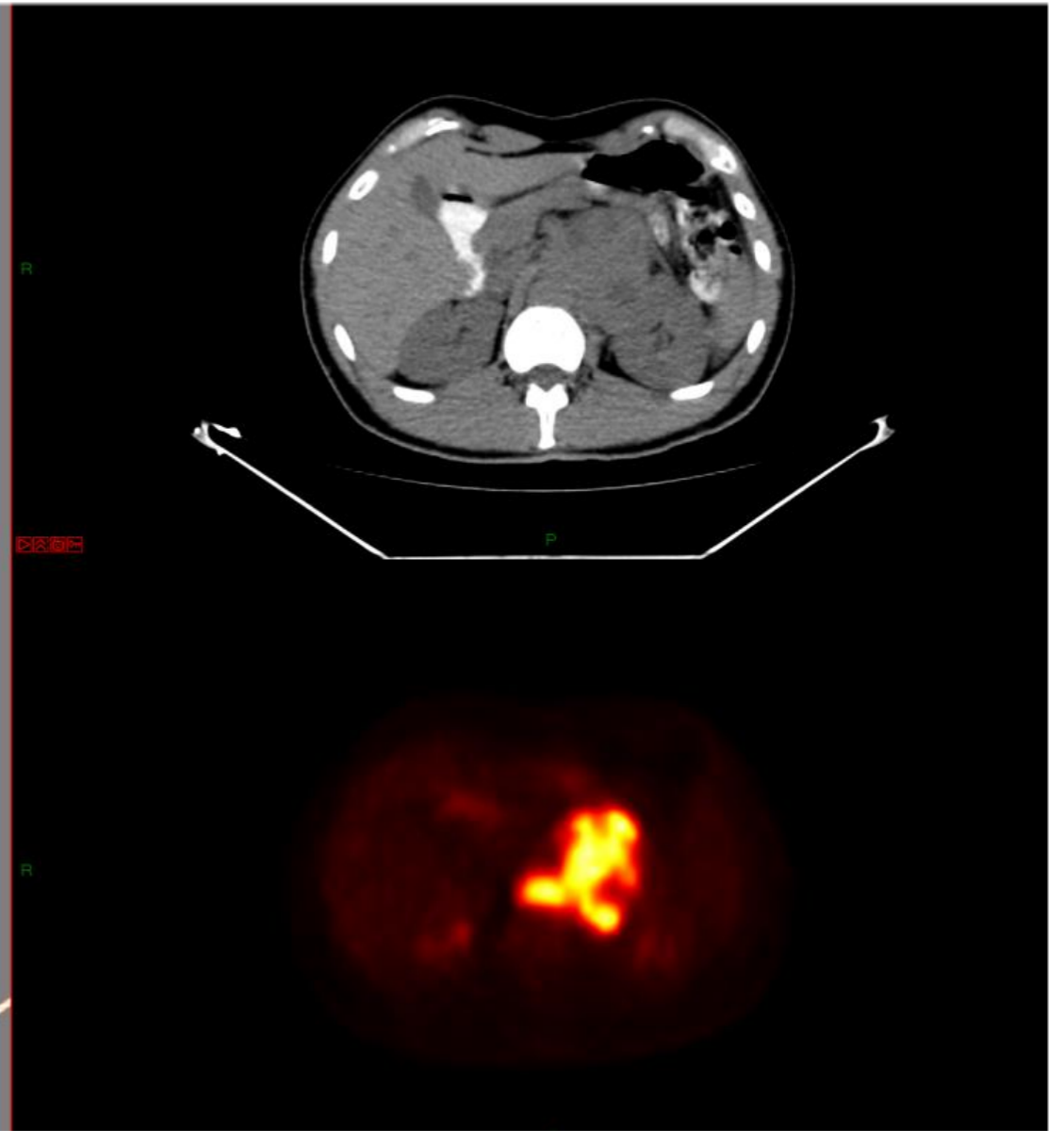
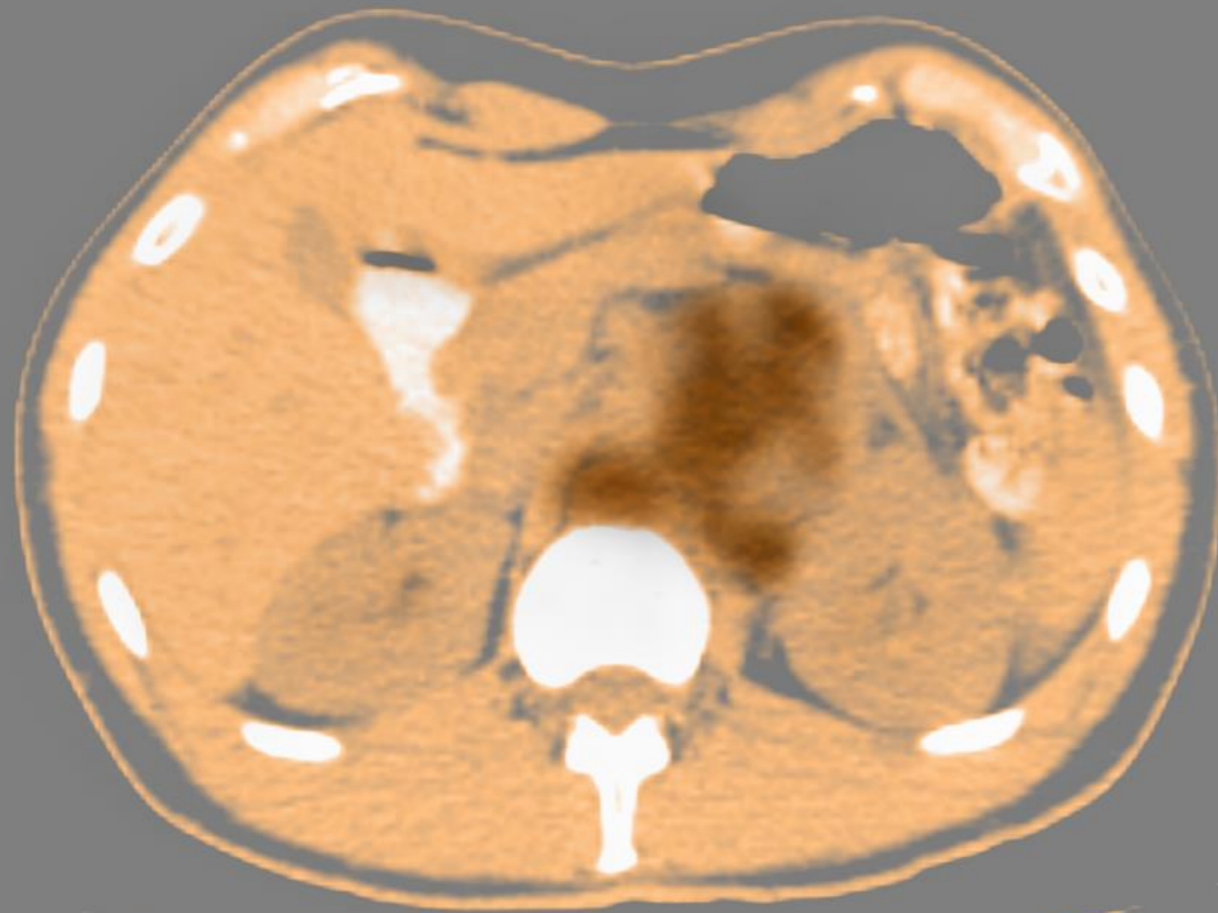
Fluorodeoxyglucose (FDG)-PET has a high negative predictive value in patients with residual masses after treatment of seminoma. False-positive results are less frequent when scans are scheduled >2 mo after chemotherapy [71].

Seminoma pós-QT



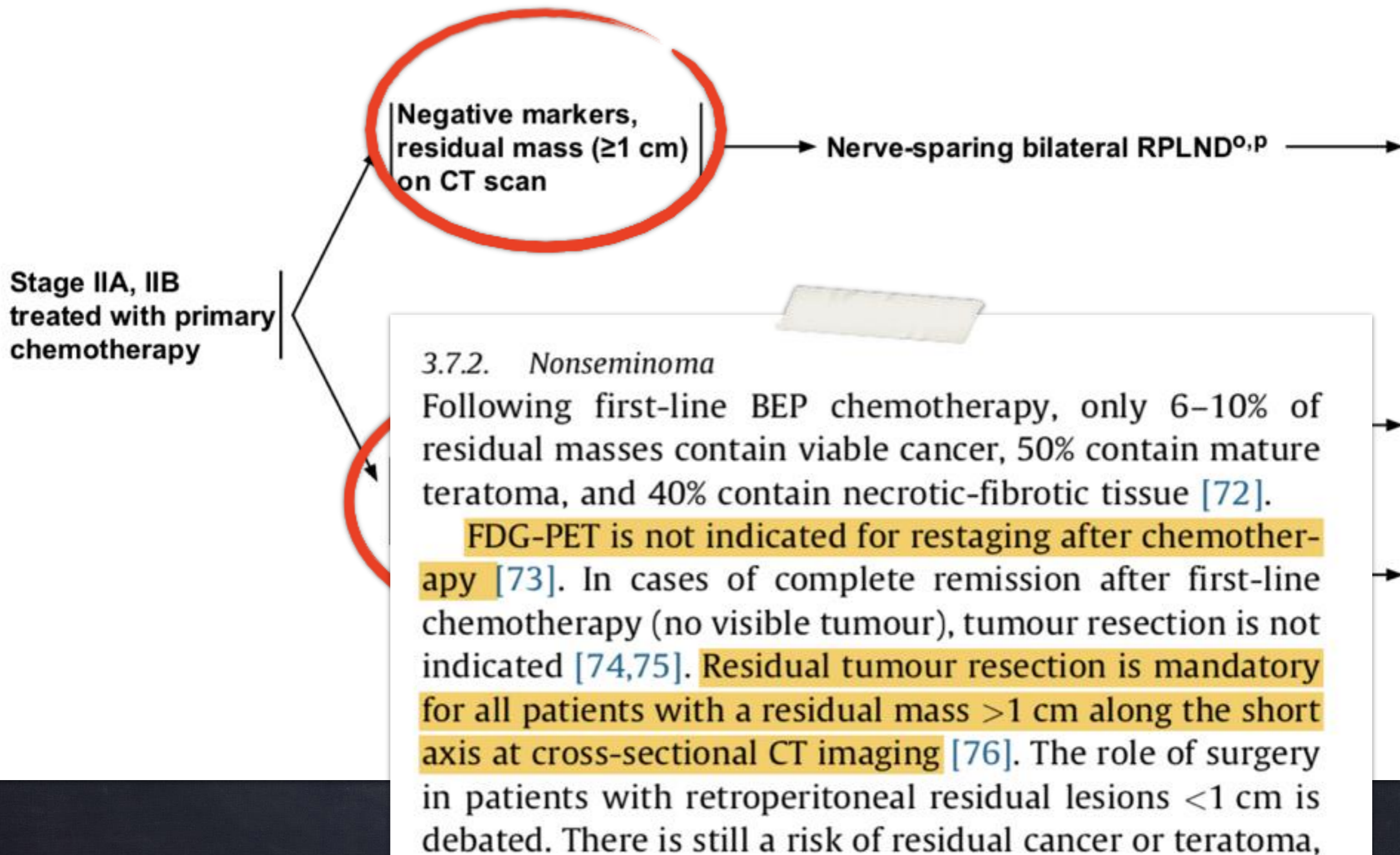
3.0 cm

PET/CT

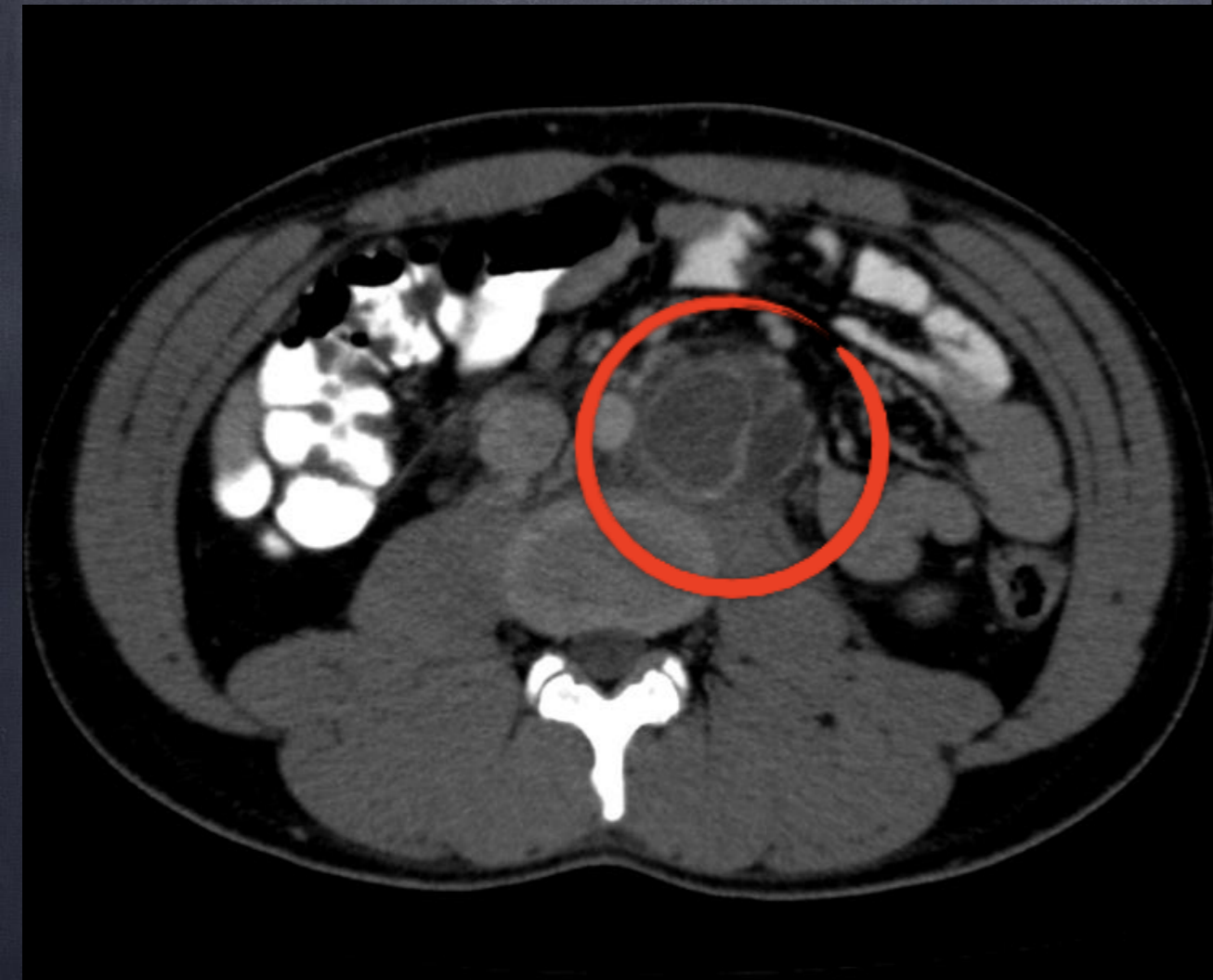


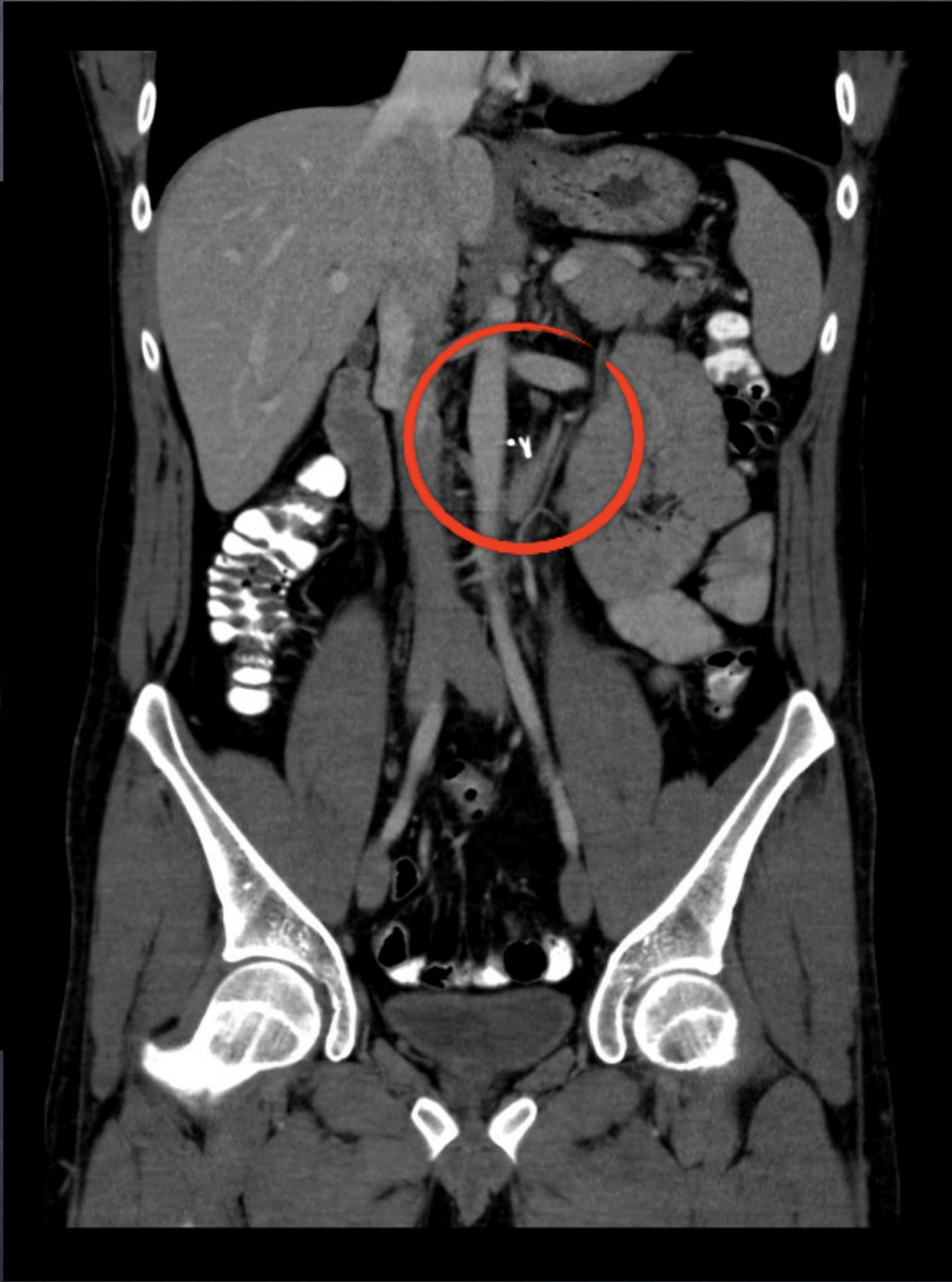
Não seminoma pos-quimio

POSTCHEMOTHERAPY MANAGEMENT



Não seminoma pós-BEP







Dúvidas radiológicas

1. Qual tamanho devo usar para linfonodo retroperitoneal?

ACR Appropriateness Criteria Staging of Testicular Malignancy.

Yacoub JH¹, Oto A², Allen BC³, Coakley FV⁴, Friedman B⁵, Hartman MS⁶, Hosseinzadeh K⁷, Porter C⁸, Sahni VA⁹, Sudakoff GS¹⁰, Verma S¹¹, Wang CL¹², Remer EM¹³, Eberhardt SC¹⁴.

been found to mimic metastases from testicular tumors [22]. Lymph nodes >1 cm in short axis are highly suspicious for metastatic disease, particularly if they are

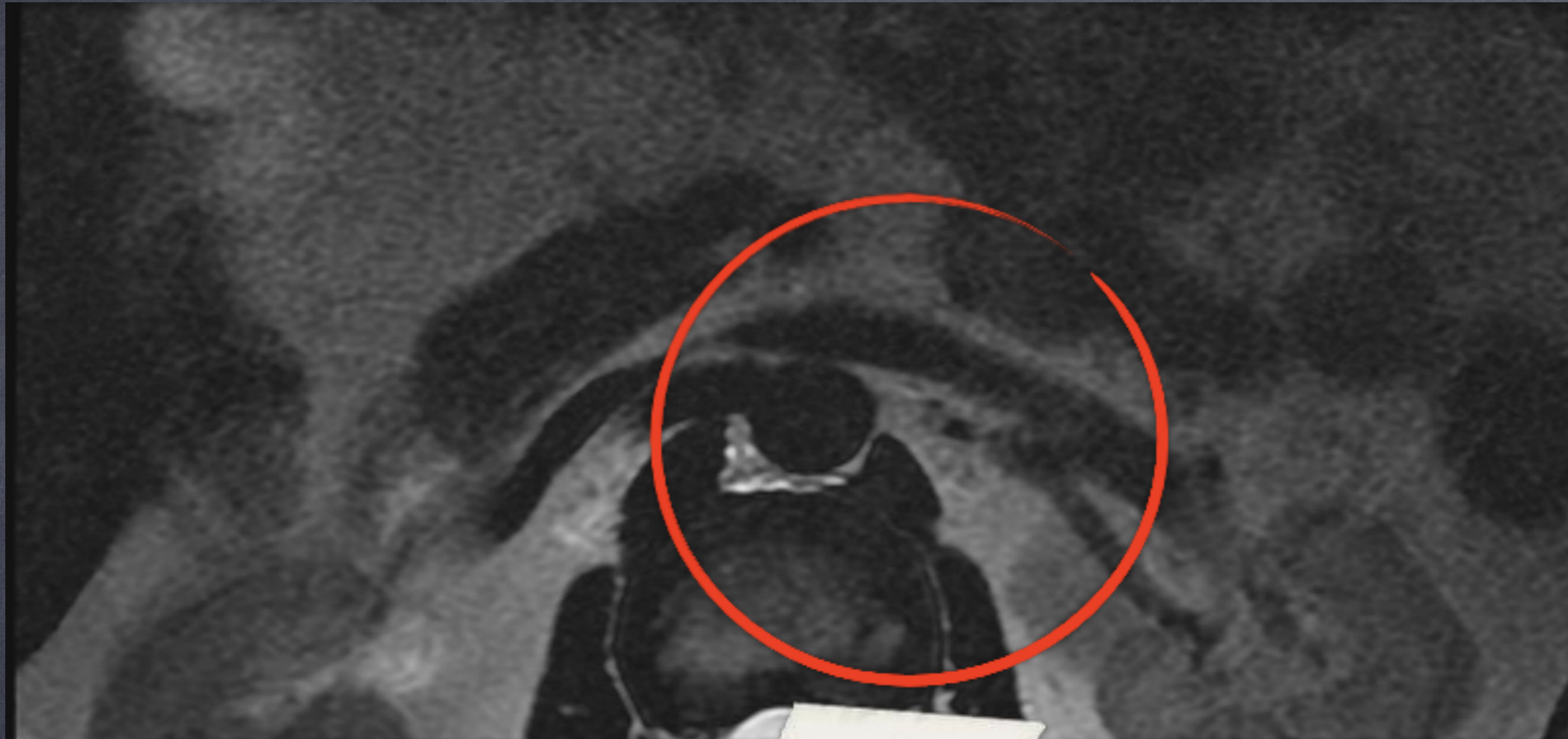
Sensibilidade: 40-60%
Especificidade: 80-100%

Table 4 *Lymph node size at various anatomic sites: short axis diameter, upper limits of normal*

Site	Group	Short axis size (mm)
Head and neck	Cervical	10 (<10 mm with central necrosis)
Axilla		10
Mediastinum	Subcarinal	12
	Paracardiac	8
	Retrocural	6
	All other sites	10
Abdomen	Gastrohepatic ligament	8
	Porta hepatis	8
	Portacaval	10
	Coeliac axis to renal artery	10
	Renal artery to aortic bifurcation	12
Pelvis	Common iliac	9
	External iliac	10
	Internal iliac	7
	Obturator	8

2. Existe lugar para RM?

Uso da RM - sistêmico

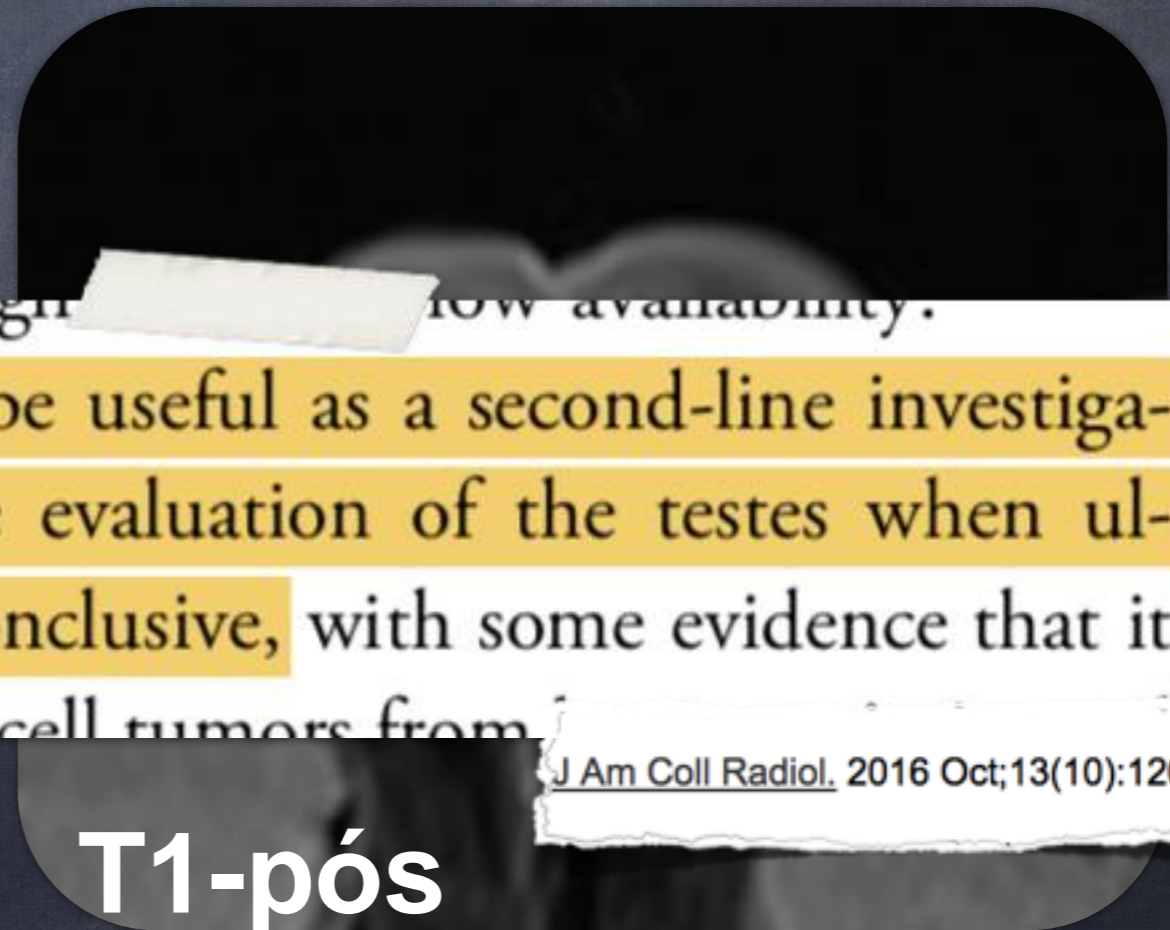
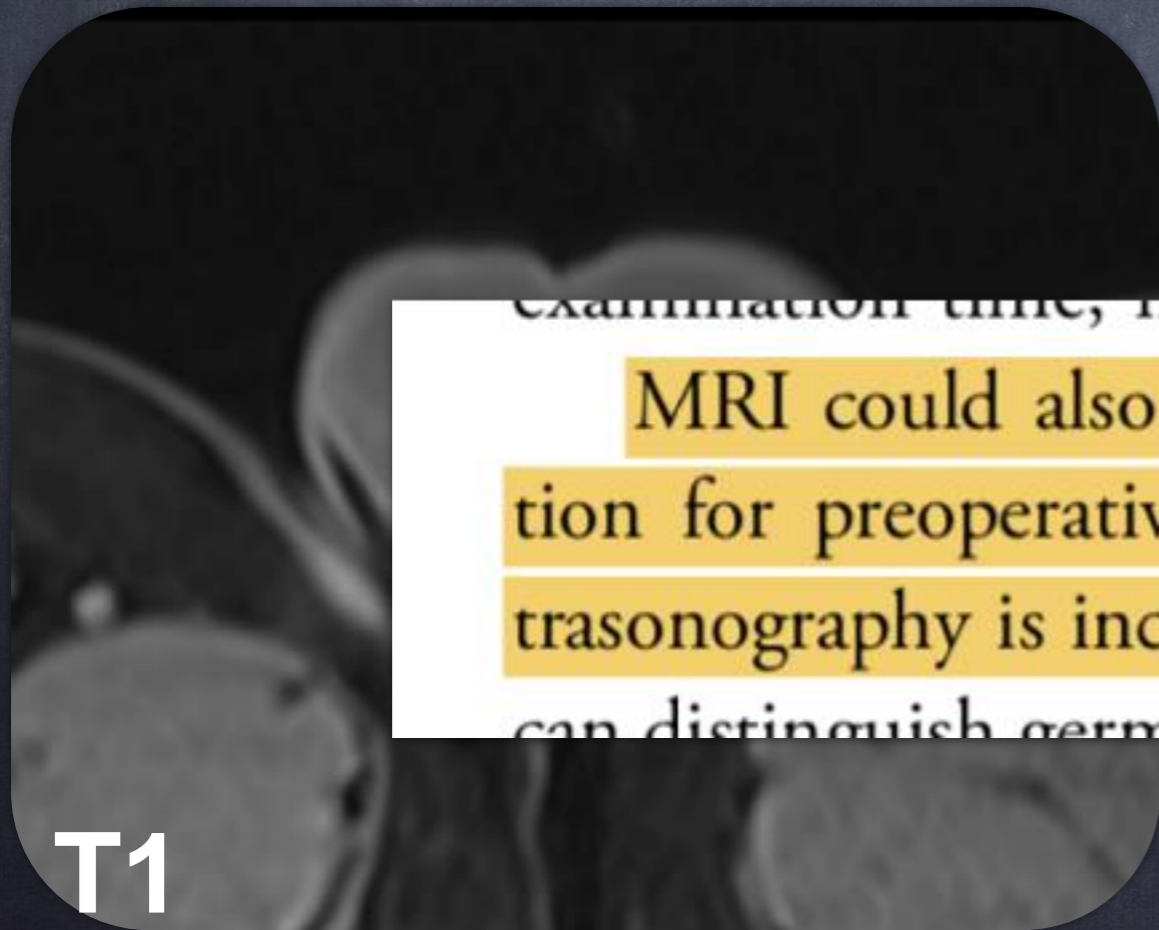
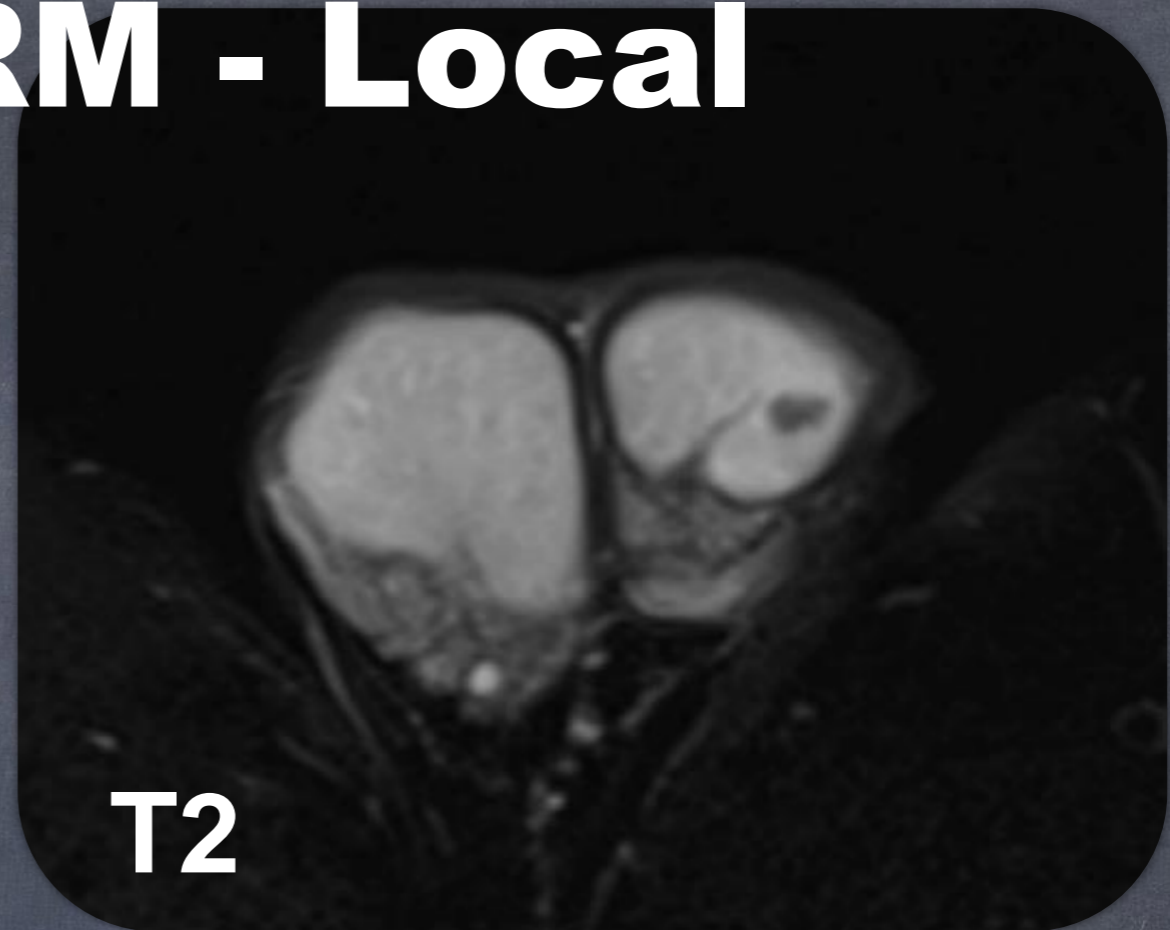


MRI. MRI has also been used in the staging of testicular tumors [13,39-42]; evidence indicates that it is comparable to CT [13,40]. It can be useful in patients in whom iodinated contrast cannot be given [43,44].

Uso da RM - Local

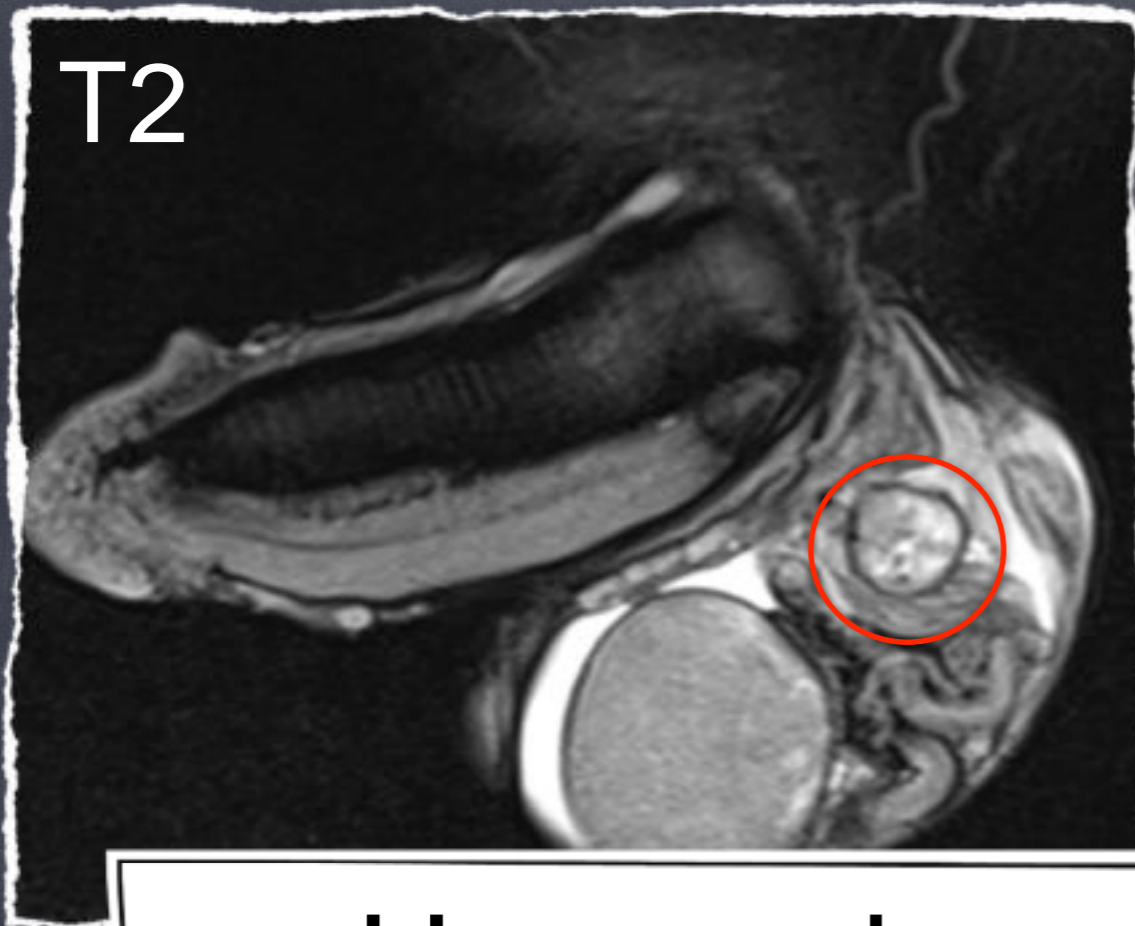


Uso da RM - Local

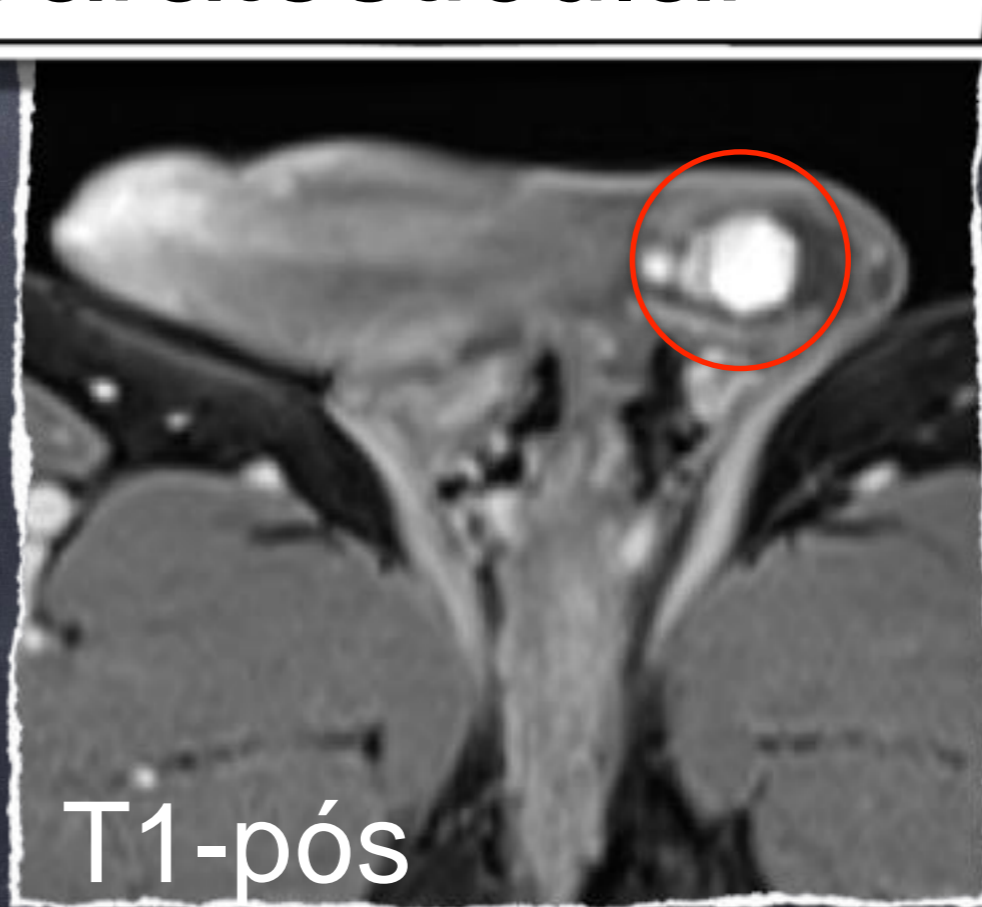


examination time, high cost, and low availability.

MRI could also be useful as a second-line investigation for preoperative evaluation of the testes when ultrasonography is inconclusive, with some evidence that it can distinguish germ cell tumors from

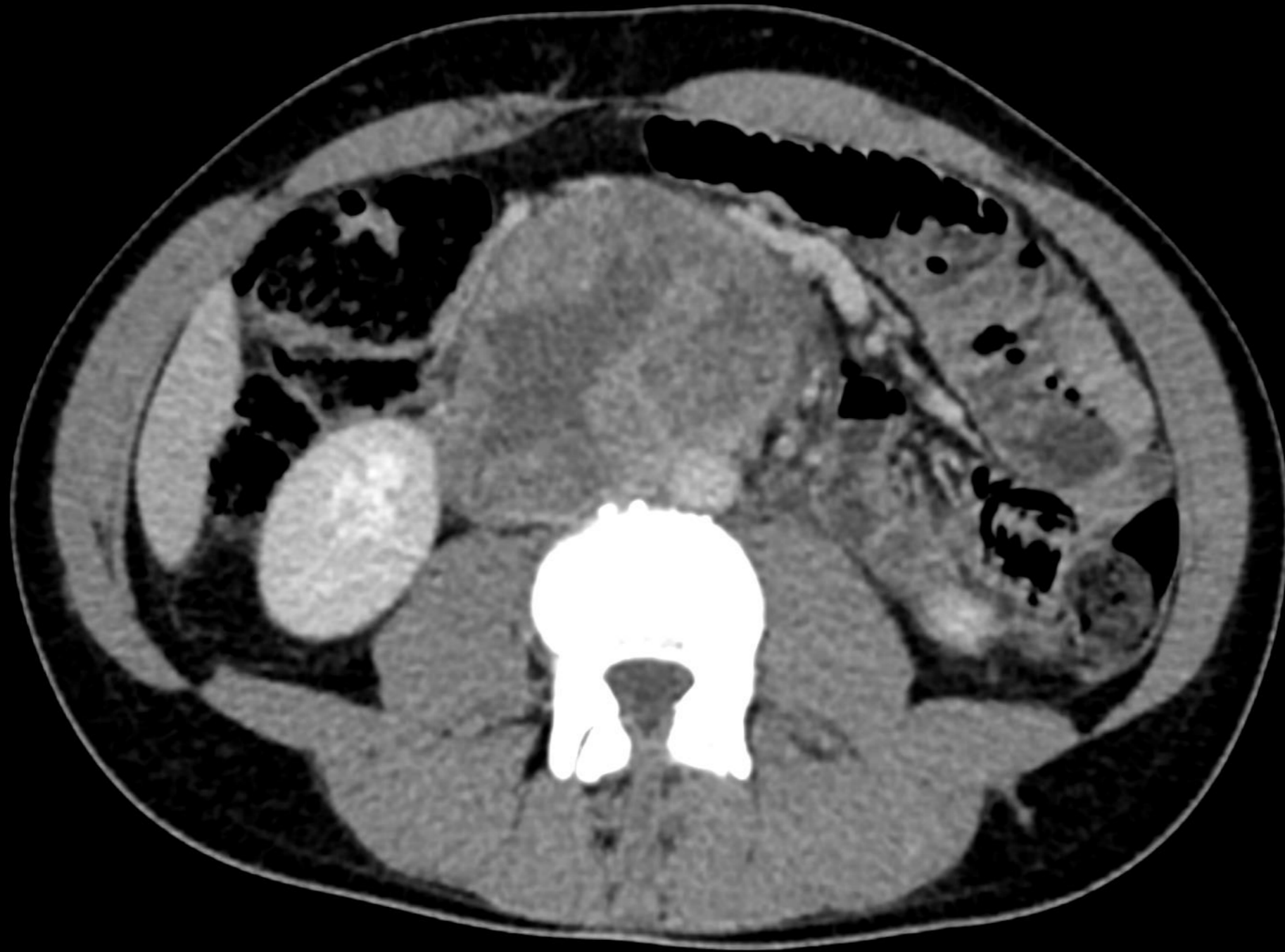


Hemangioma paratesticular



3. Armadilhas de resposta...

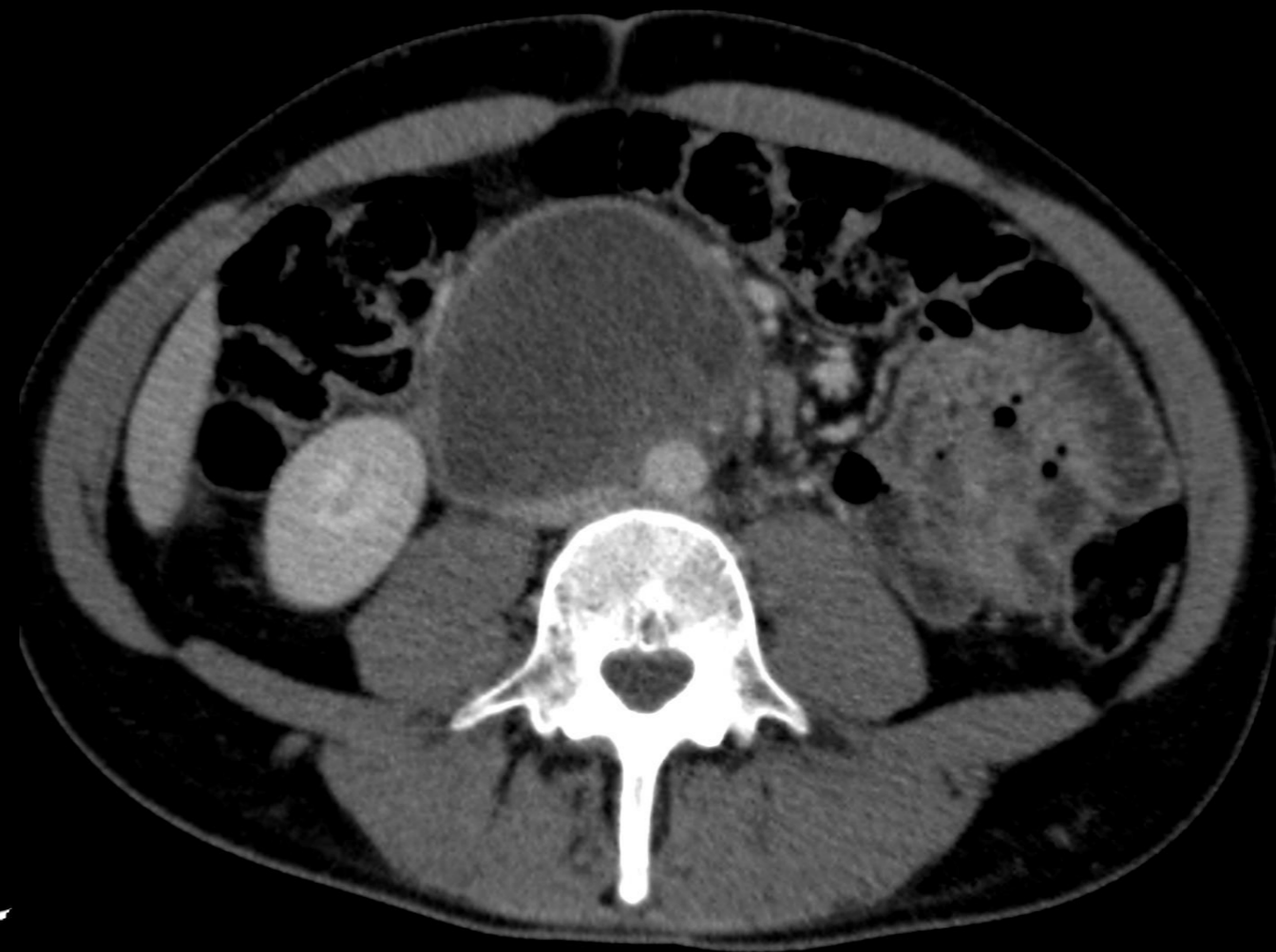
Seminoma - estadiamento



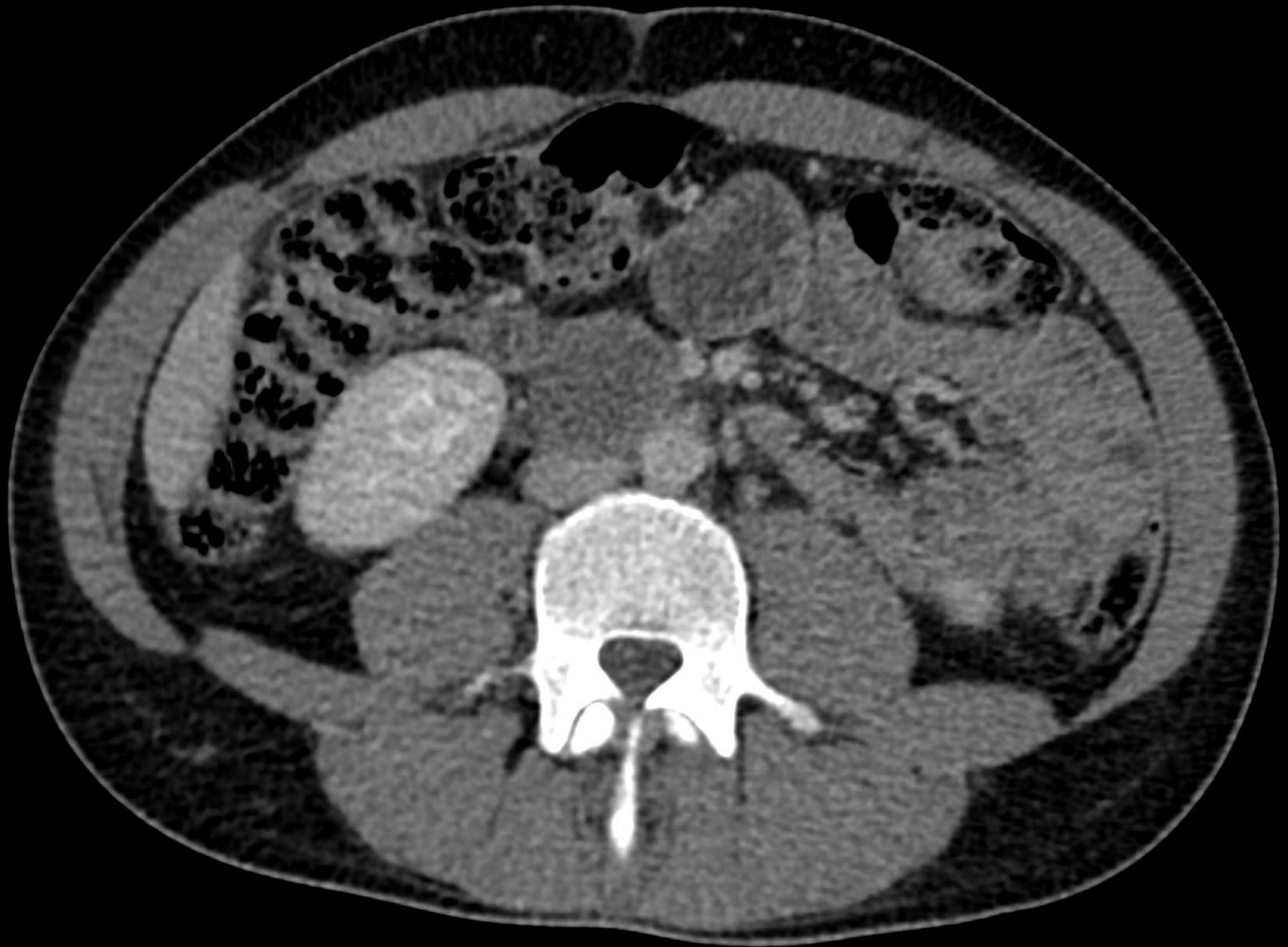
3 meses depois



Recist...



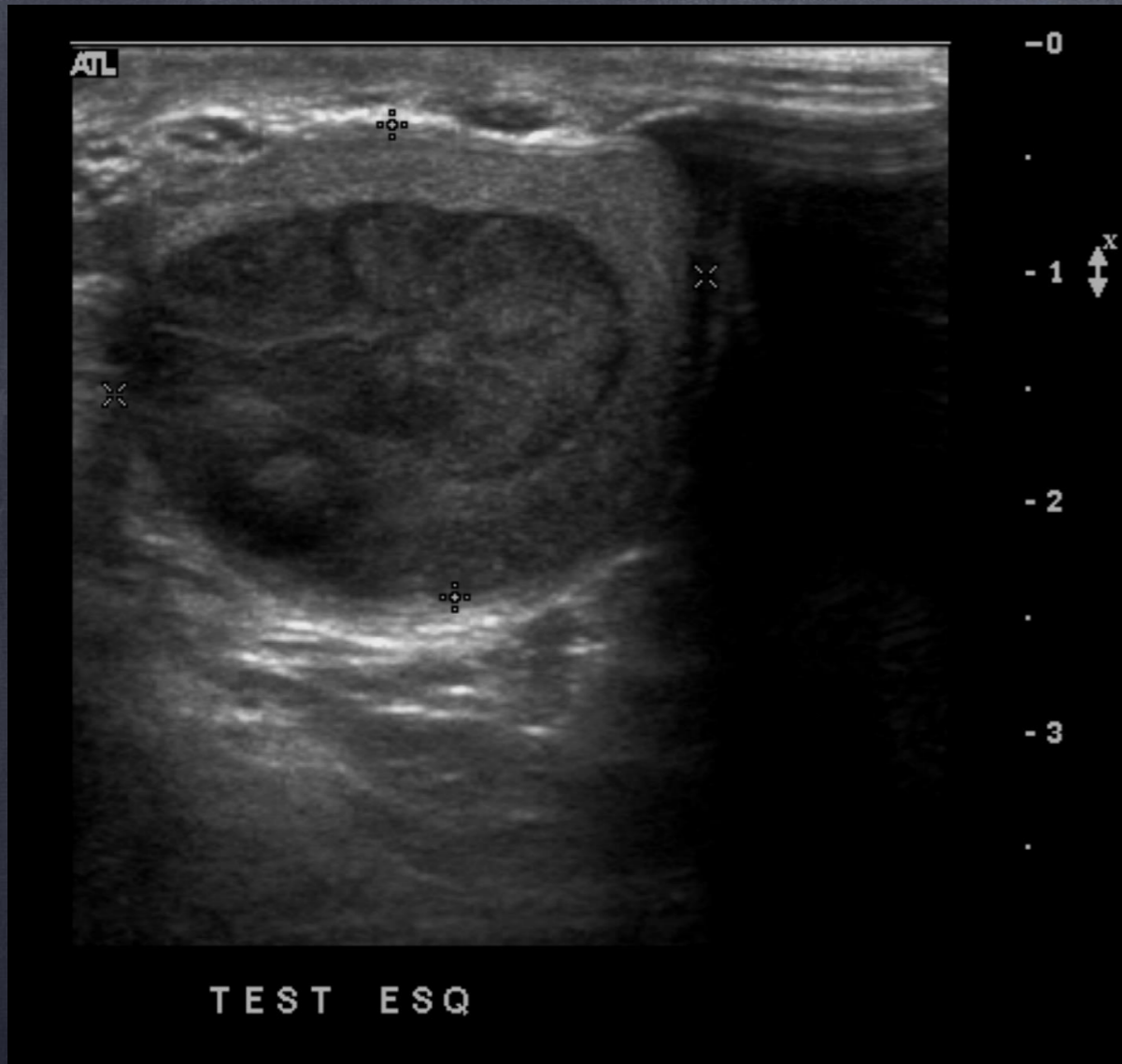
6 meses depois



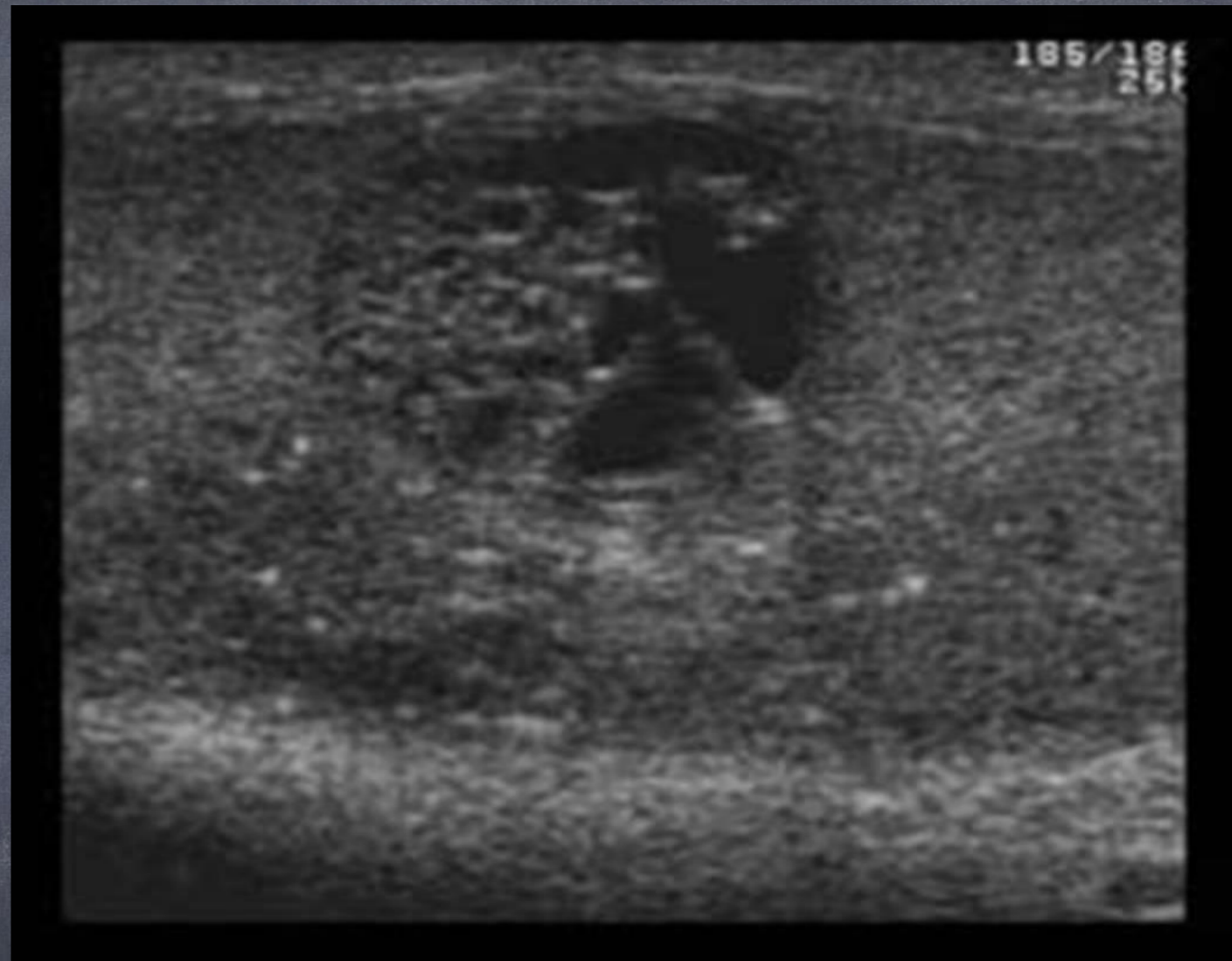
9 meses depois



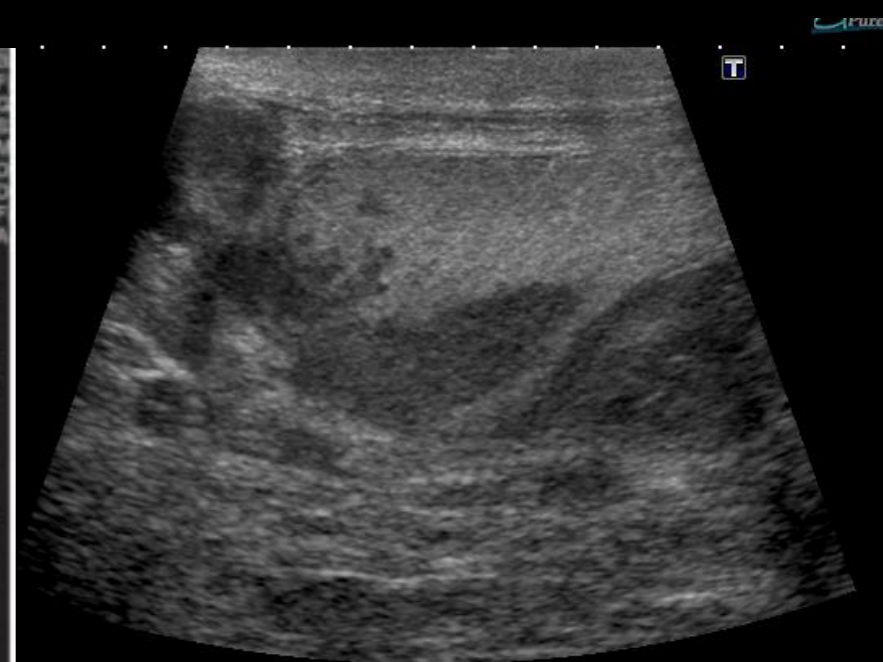
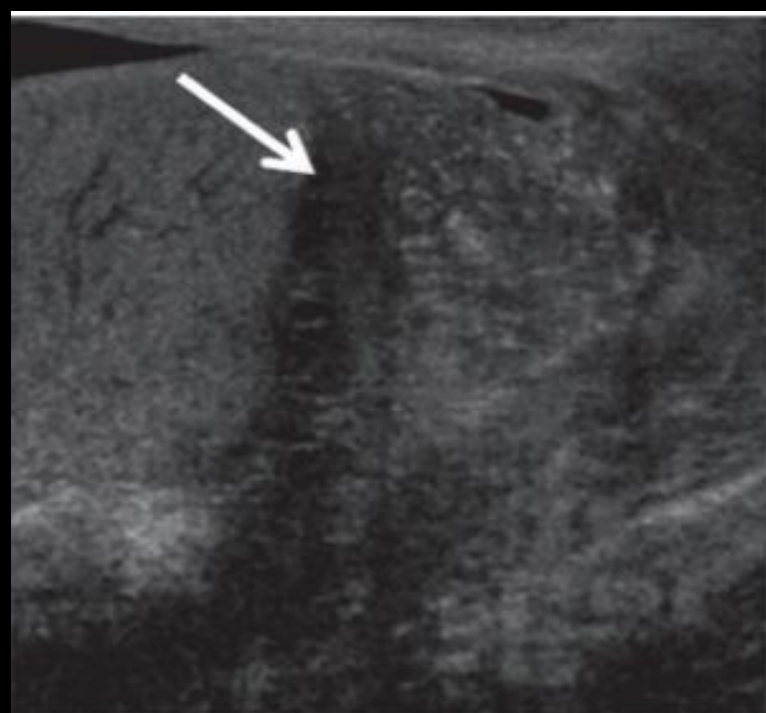
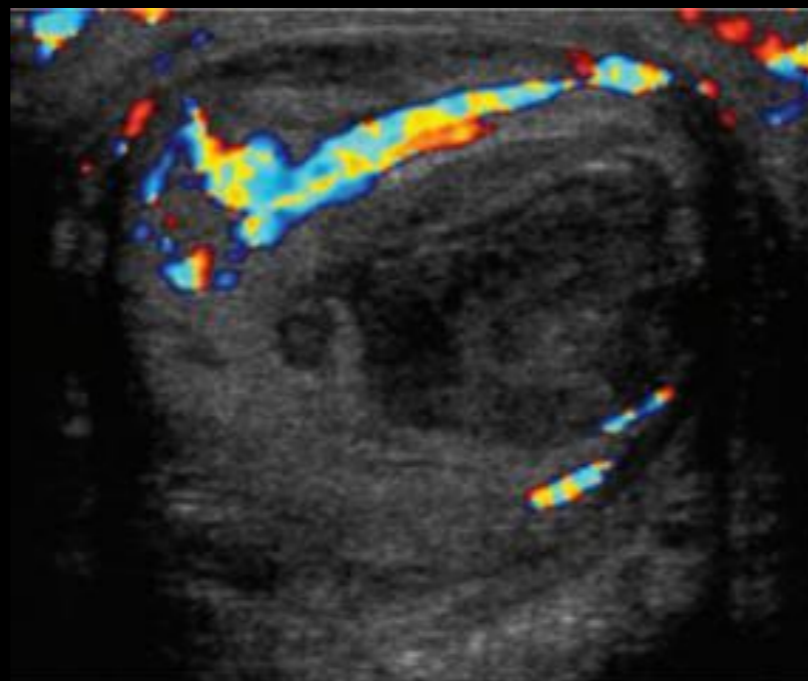
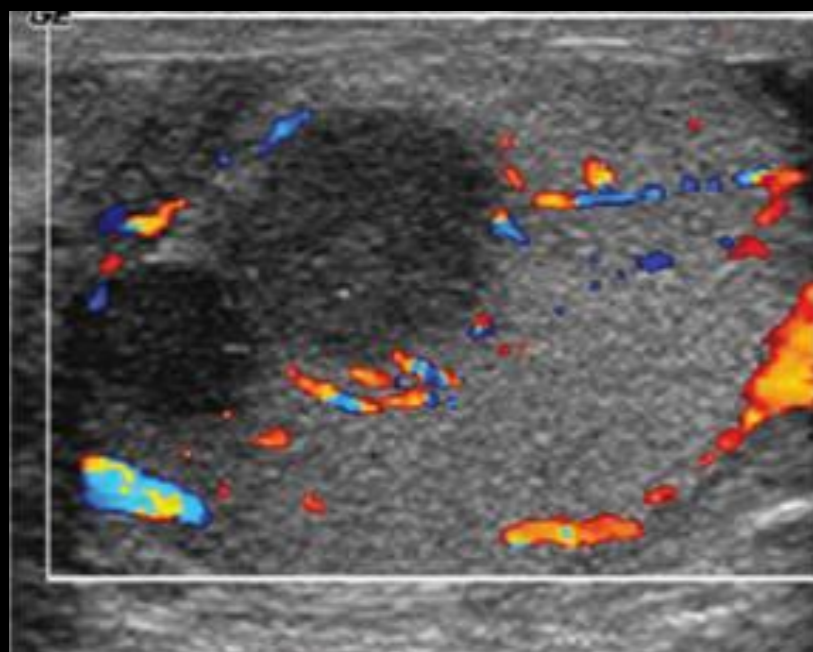
4. É possível distinguir tipo histológico pela ultrassonografia?



seminoma



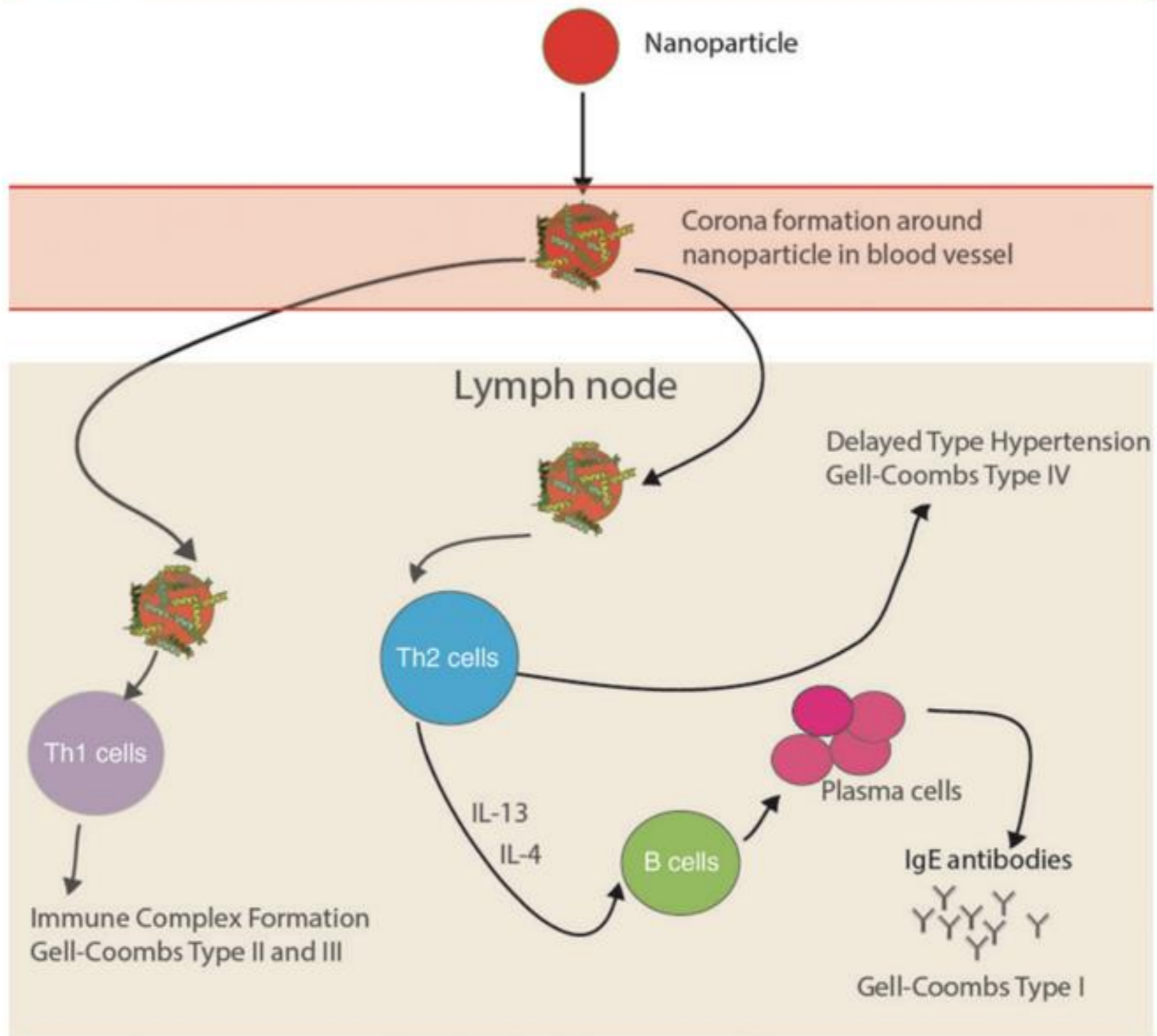
não seminoma



5. Existe algum novo método de imagem?

Superparamagnetic iron oxide (SPIO) MR contrast agents

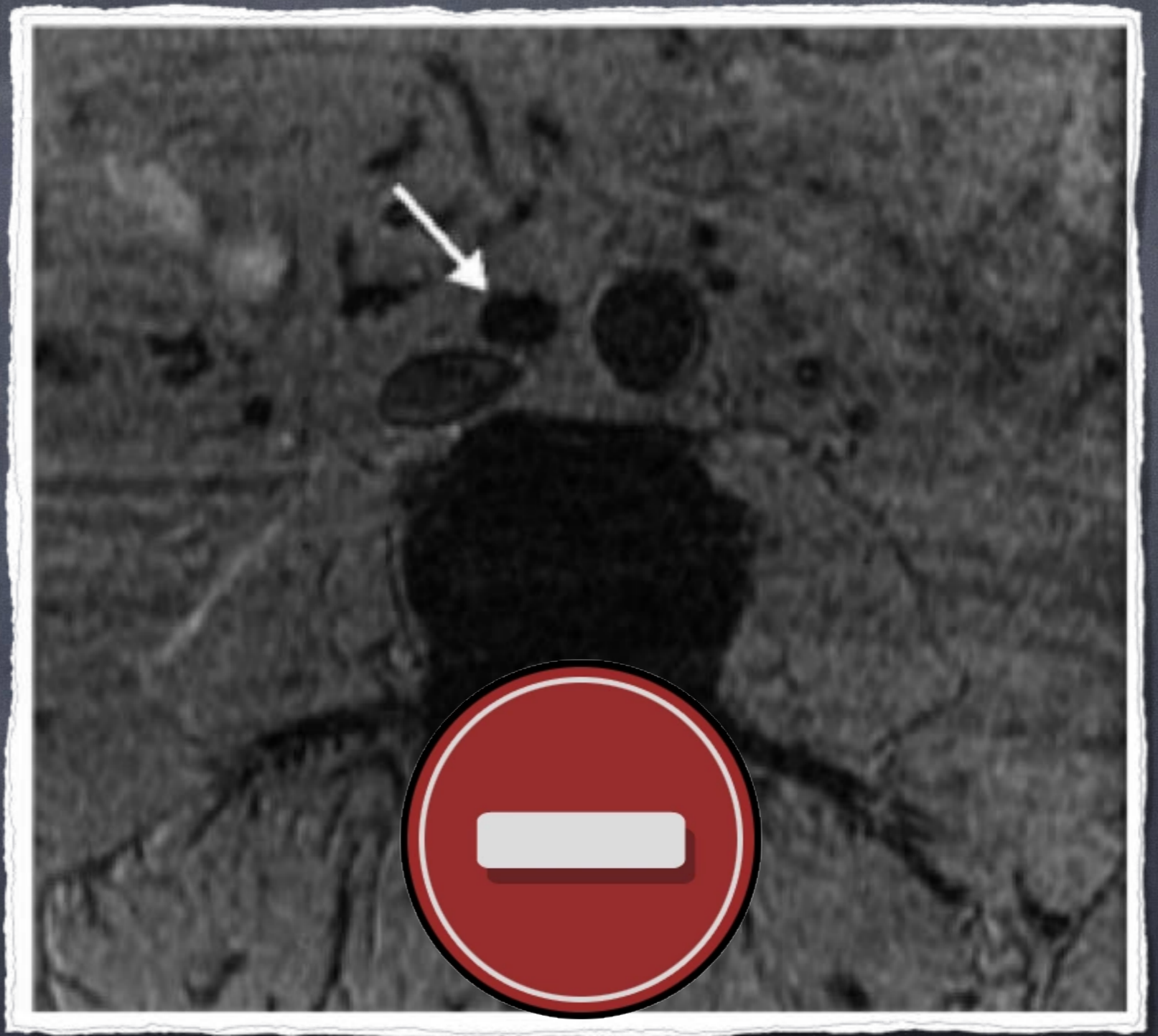
Figure 1



A PILOT STUDY OF LYMPHOTROPIC
NANOPARTICLE-ENHANCED MAGNETIC RESONANCE
IMAGING TECHNIQUE IN EARLY STAGE TESTICULAR
CANCER: A NEW METHOD FOR NONINVASIVE
LYMPH NODE EVALUATION

MUKESH G. HARISINGHANI, MANSI SAKSENA, ROBERT W. ROSS, SHAHIN TABATABAEI,
DOUGLAS DAHL, SCOTT McDOUGAL, AND RALPH WEISSLEDER

doi:10.1016/j.urology.2005.05.049





A



B



TABLE II. Primary efficacy parameters of MRI alone and MRI with LNMRI


Variable	MRI Alone	Ferumoxtran-10-Enhanced MRI
Results per individual node (n = 42)		
Sensitivity (%)	70.5	88
Specificity (%)	68	92
Accuracy (%)	69	90
Results for nodes <10 mm (n = 22)		
Sensitivity (%)	0	100
Specificity (%)	100	100
Accuracy (%)	77.2	100

KEY: LNMRI = lymphotropic nanoparticle-enhanced magnetic resonance imaging.

Trial record **2 of 2** for: Superparamagnetic Iron Oxide Nanoparticle | Superparamagnetic Iron Oxide Nanoparticle

[◀ Previous Study](#) | [Return to List](#) | [Next Study](#)

Ferumoxytol - Iron Oxide Nanoparticle Magnetic Resonance Dynamic Contrast Enhanced MRI

 The safety and scientific validity of this study is the responsibility of the study sponsor and investigators. Listing a study does not mean it has been evaluated by the U.S. Federal Government. Read our [disclaimer](#) for details.

ClinicalTrials.gov Identifier: NCT01895829

[Recruitment Status](#) ⓘ : Active, not recruiting

[First Posted](#) ⓘ : July 11, 2013

[Last Update Posted](#) ⓘ : May 16, 2017

Sponsor:

M.D. Anderson Cancer Center

Information provided by (Responsible Party):

M.D. Anderson Cancer Center

Mapa

- Estadiamento primário
- Avaliação de resposta pós-tratamento
- Curiosidades radiológicas



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