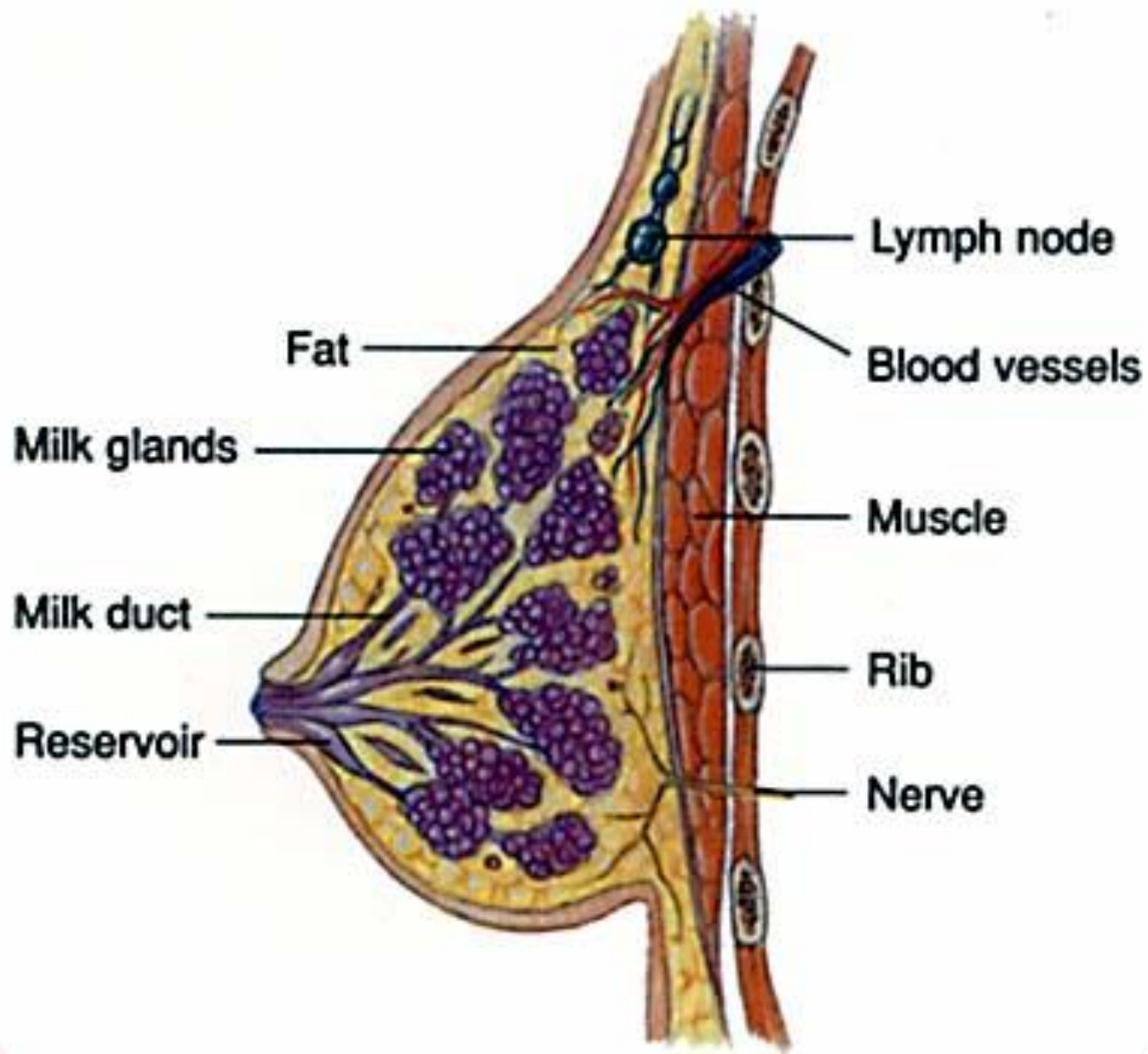
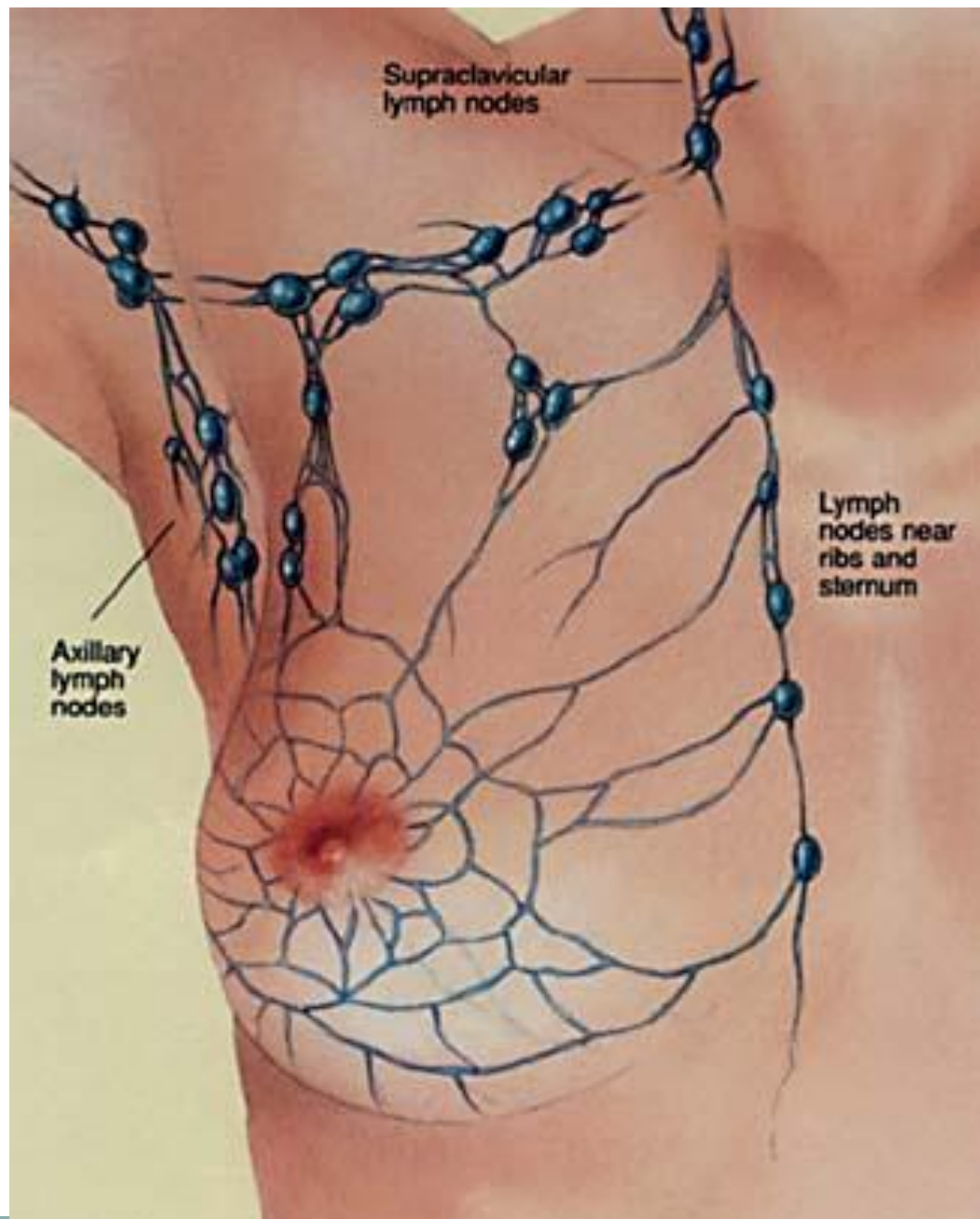


KITP tumor board



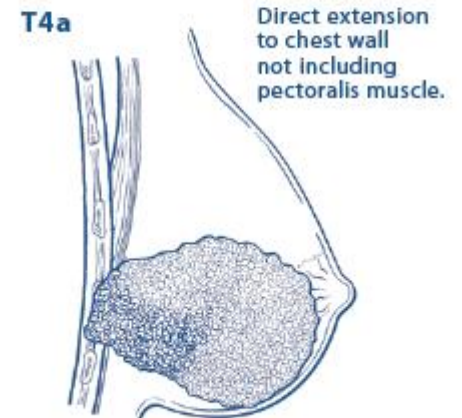
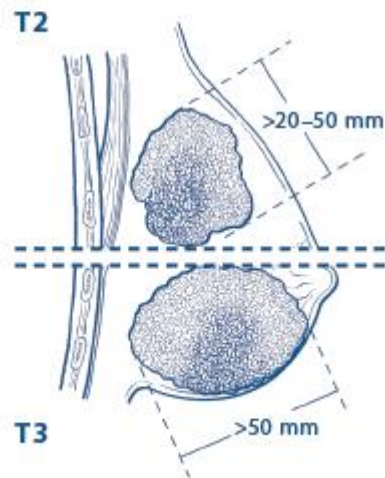
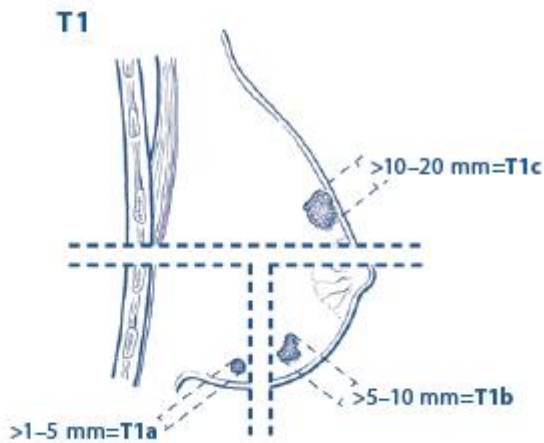
KIM GRAFTON, M.D. SURGEON
DAN GREENWALD, M.D. MEDICAL ONCOLOGIST
GARY PONTO, M.D. PATHOLOGIST





Breast Cancer Staging

7th EDITION



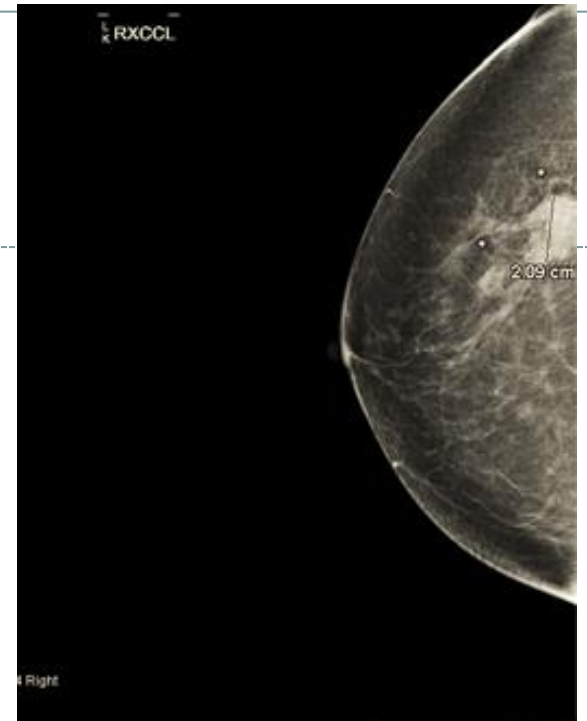
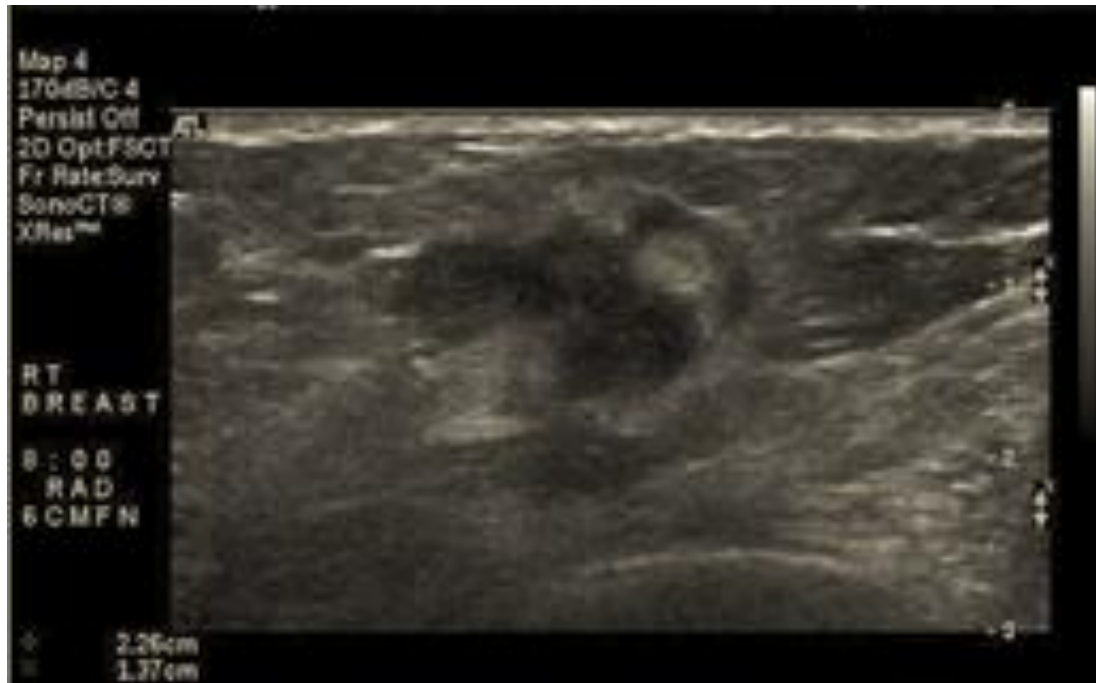
ANATOMIC STAGE/PROGNOSTIC GROUPS			
Stage 0	Tis	N0	M0
Stage IA	T1*	N0	M0
Stage IB	T0	N1mi	M0
	T1*	N1mi	M0
Stage IIA	T0	N1**	M0
	T1*	N1**	M0
	T2	N0	M0
Stage IIB	T2	N1	M0
	T3	N0	M0
Stage IIIA	T0	N2	M0
	T1*	N2	M0
	T2	N2	M0
	T3	N1	M0
	T3	N2	M0
Stage IIIB	T4	N0	M0
	T4	N1	M0
	T4	N2	M0
Stage IIIC	Any T	N3	M0
Stage IV	Any T	Any N	M1

Case 1 : CP

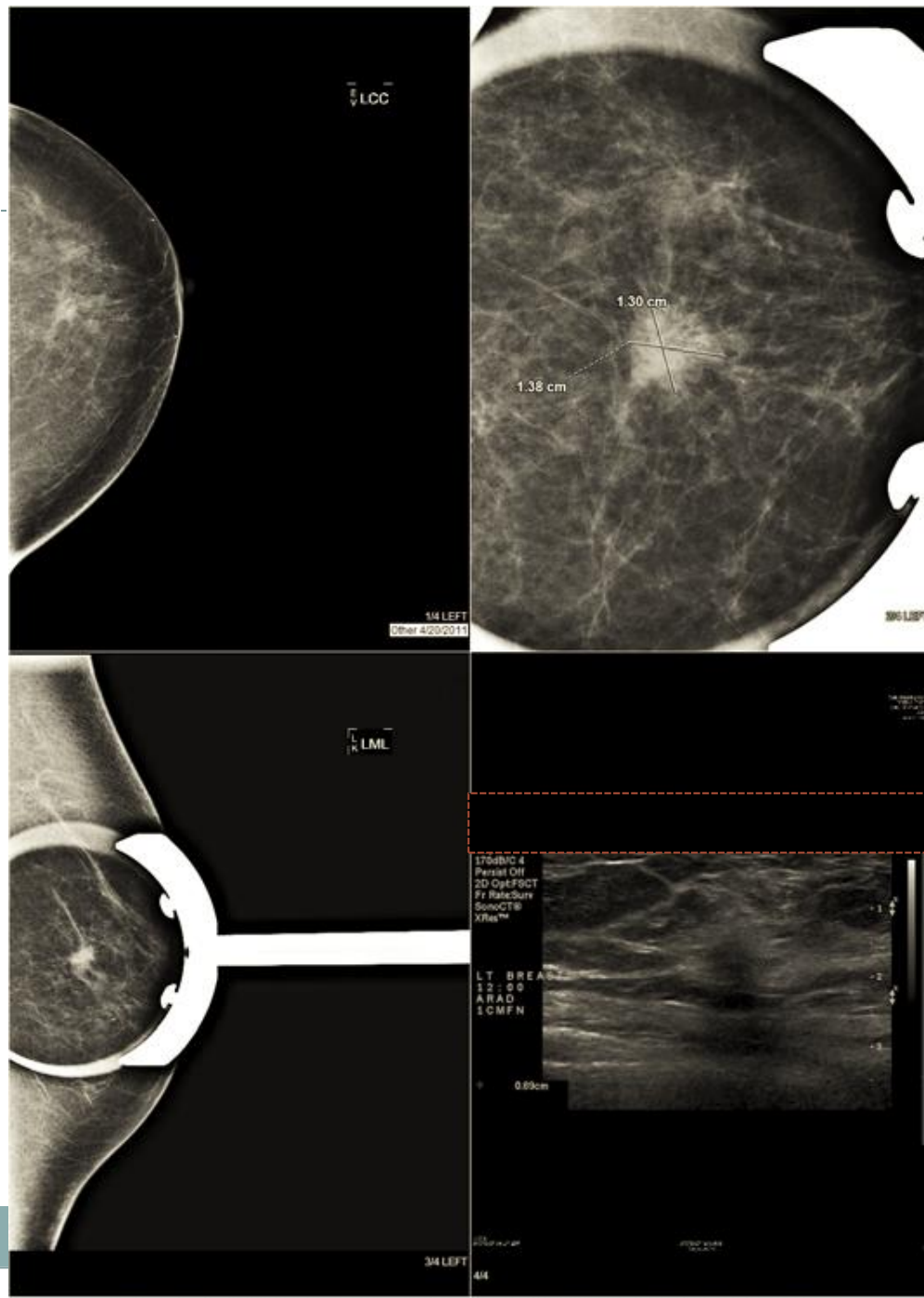


- 64 y/o woman
- First diagnosed with bilateral breast cancer in Oct 2011
- Right breast: 2.4 cm, grade 3 IDC, ER+, PR+, HER2 equivocal by FISH. Satellite lesion present.
- Left breast : 1.4 cm IDC, ER weak, PR-, HER2/neu 3+
- Bilateral lymph node mapping and biopsies:
 - Right: 2/3 nodes positive
 - Left: nodes negative

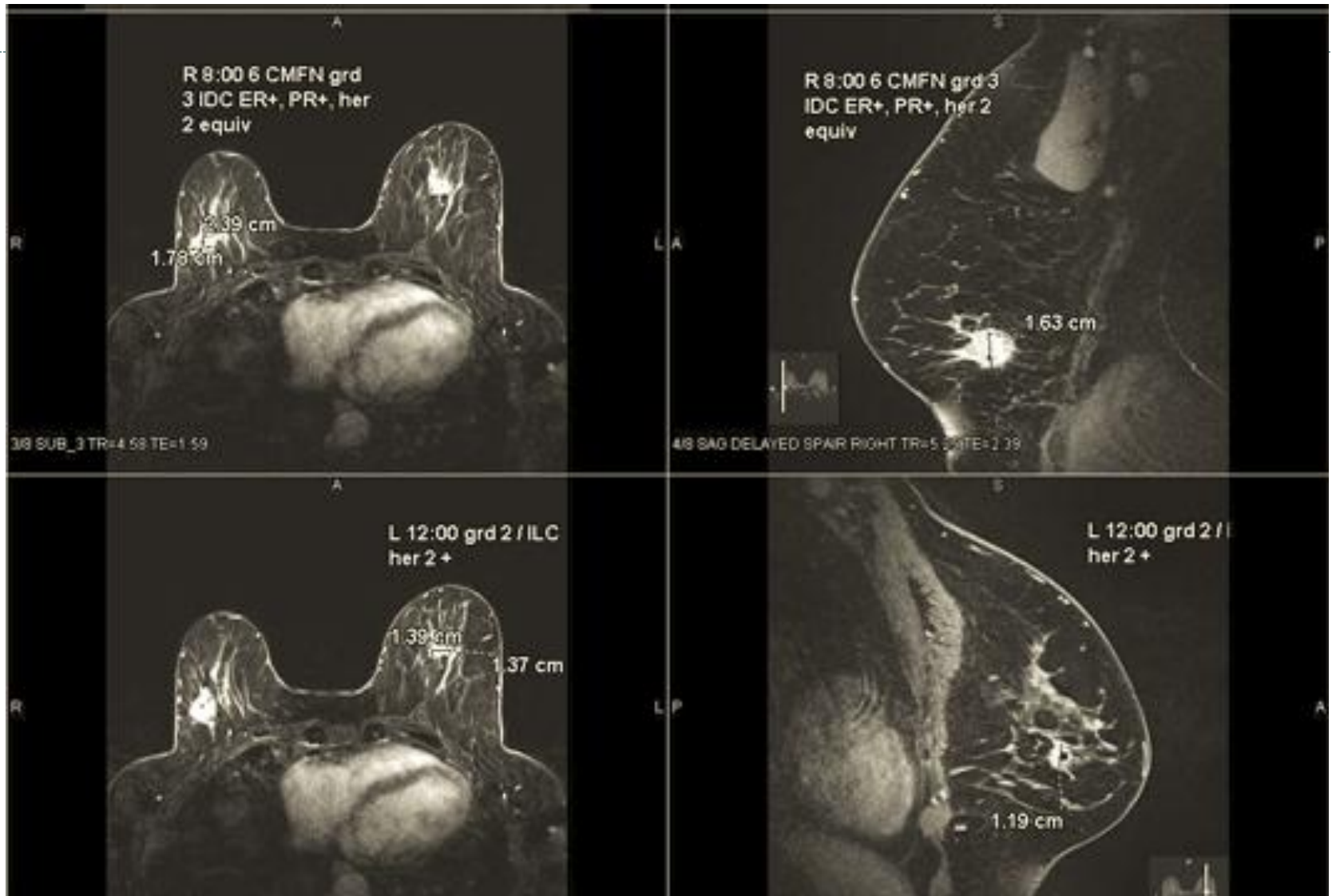
Right breast US & mammo 2011



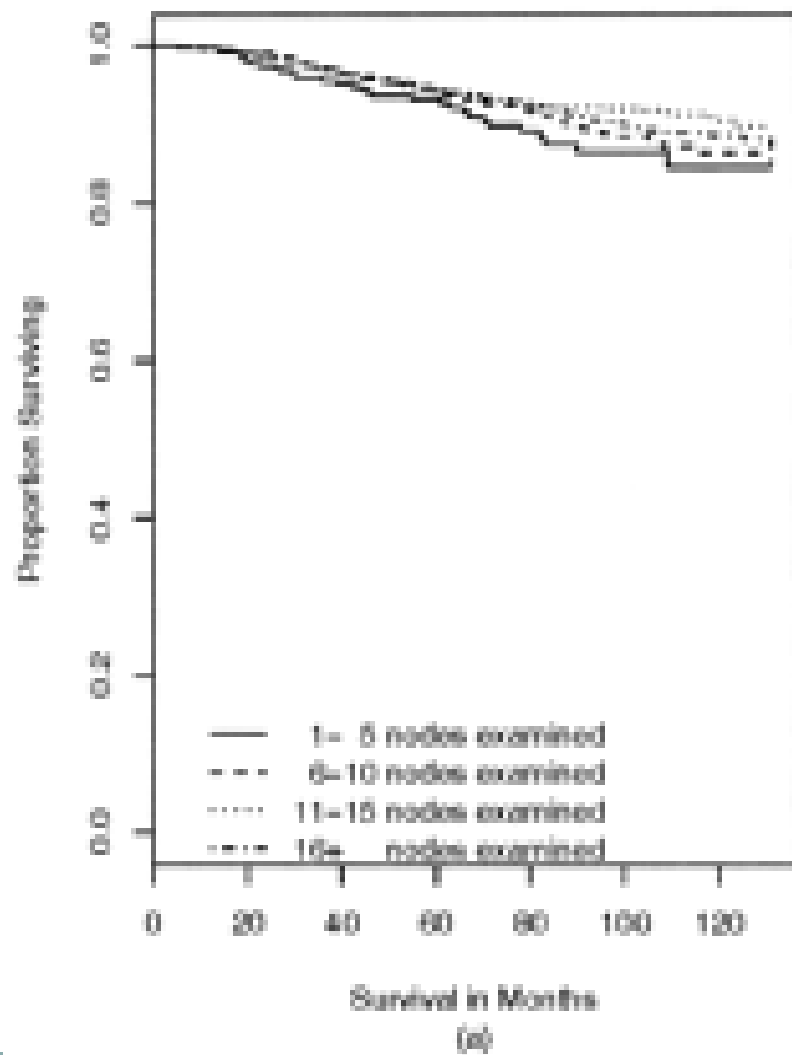
Left Mammogram 2011



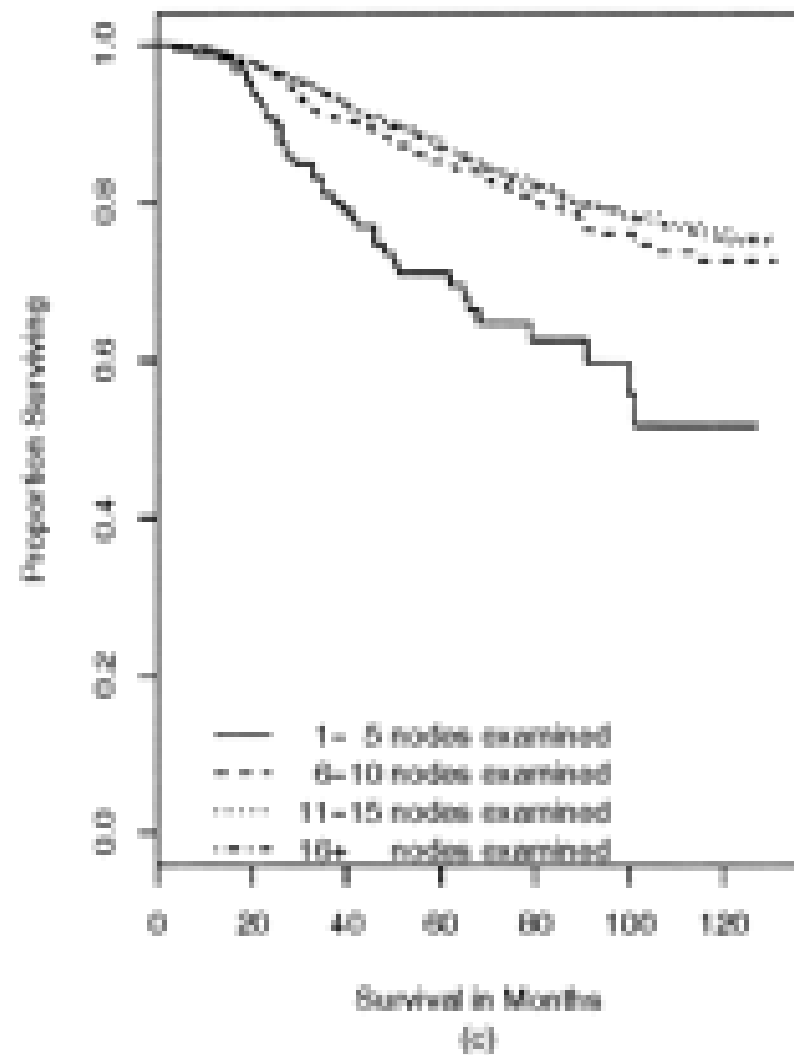
Bilateral MRI 2011 (right breast-top images, left breast –bottom images)



Nodes Positive: 0, Age: 40-49



Nodes Positive: 1-3, Age: 40-49



Decision: No Additional Therapy



 73 out of 100 women are alive and without cancer in 10 years.

 25 out of 100 women relapse.

 2 out of 100 women die of other causes.

Decision: Hormonal Therapy



 13 out of 100 women are alive and without cancer because of therapy.

Decision: Chemotherapy



 14 out of 100 women are alive and without cancer because of therapy.

Decision: Combined Therapy



 20 out of 100 women are alive and without cancer because of therapy.

Decision: No Additional Therapy



 36 out of 100 women are alive in 10 years.

 62 out of 100 women die because of cancer.

 2 out of 100 women die of other causes.

Decision: Hormonal Therapy



 14 out of 100 women are alive because of therapy.

Decision: Chemotherapy



 13 out of 100 women are alive because of therapy.

Decision: Combined Therapy



 25 out of 100 women are alive because of therapy.

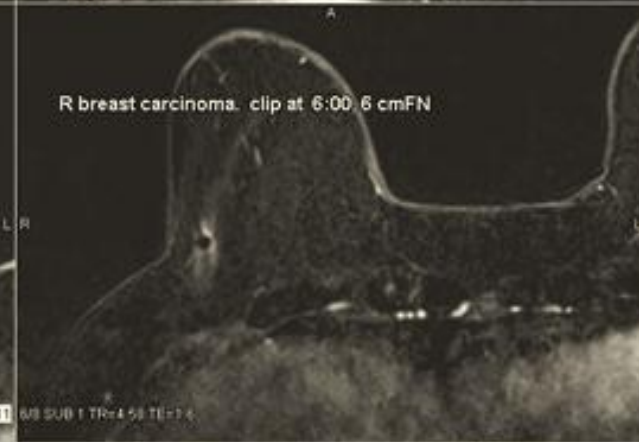
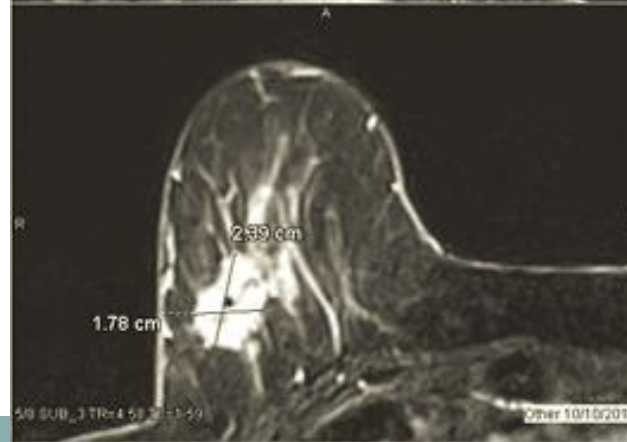
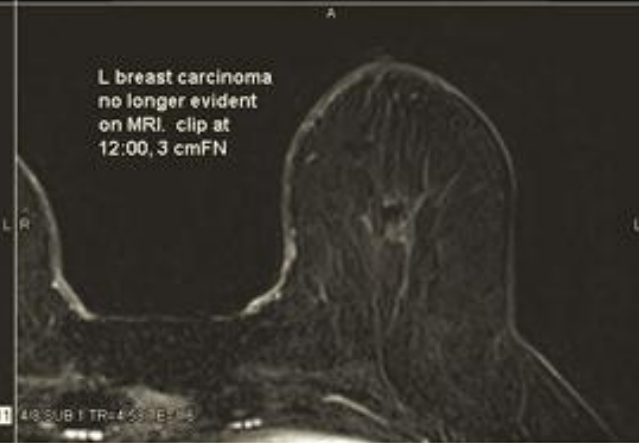
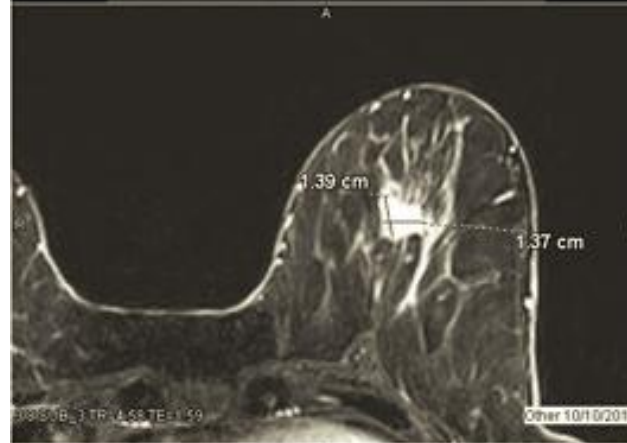
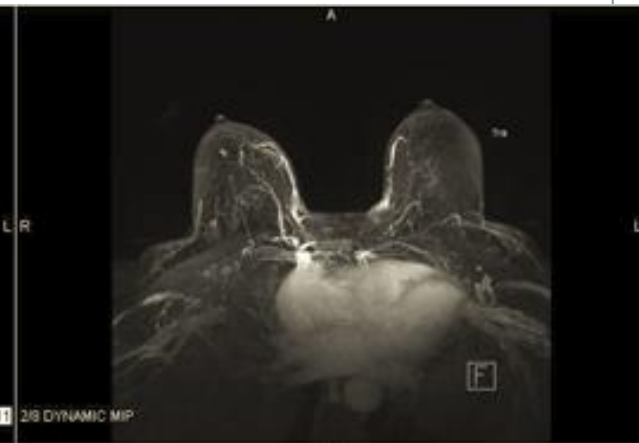
CP: treatment



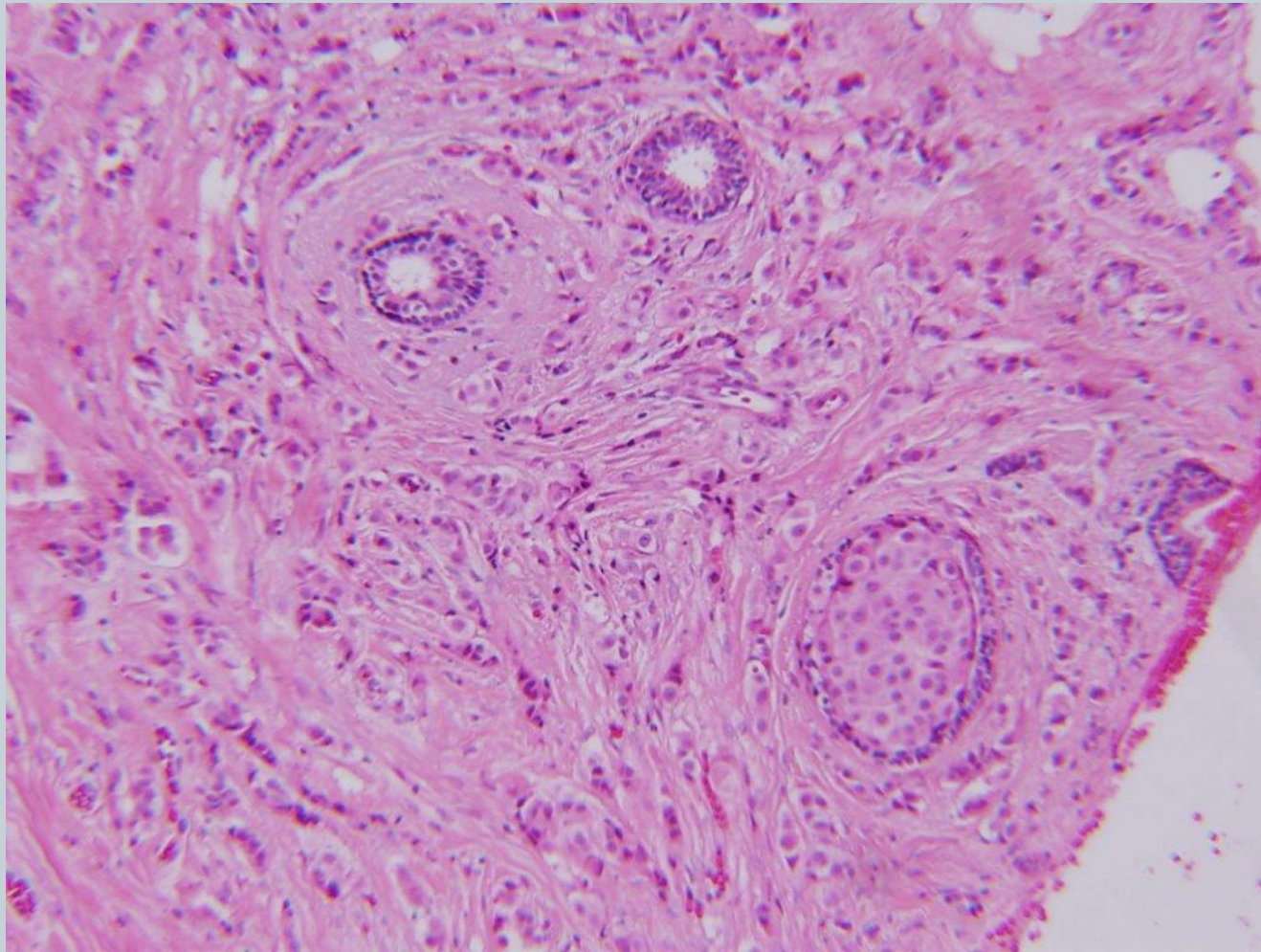
- Treated with Taxotere/Carboplatin/Herceptin neoadjuvantly
- then bilateral partial mastectomy with SLN bx
- bilateral whole breast radiation therapy
- continuation of Herceptin
- Arimidex

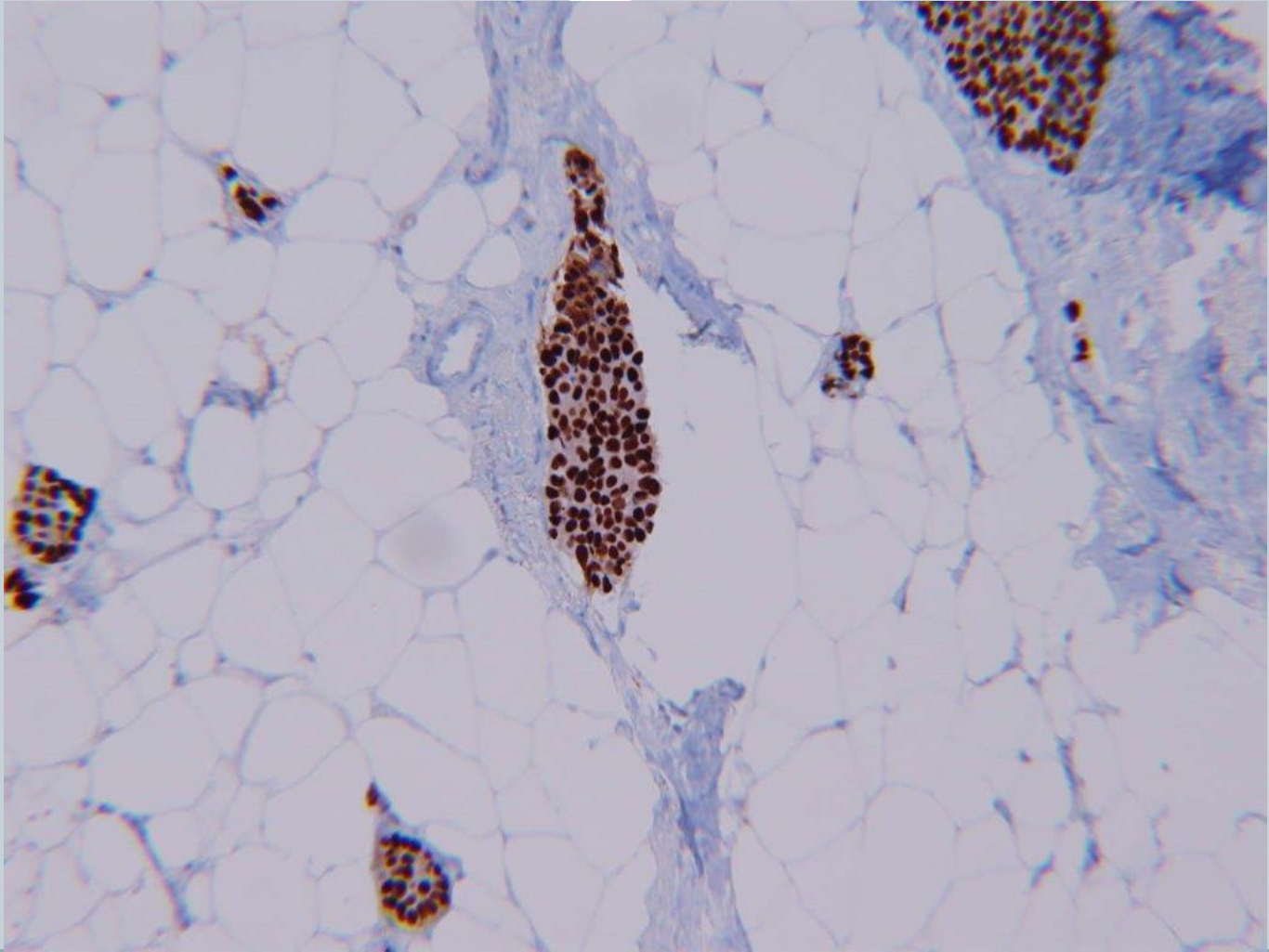
MRI 2012

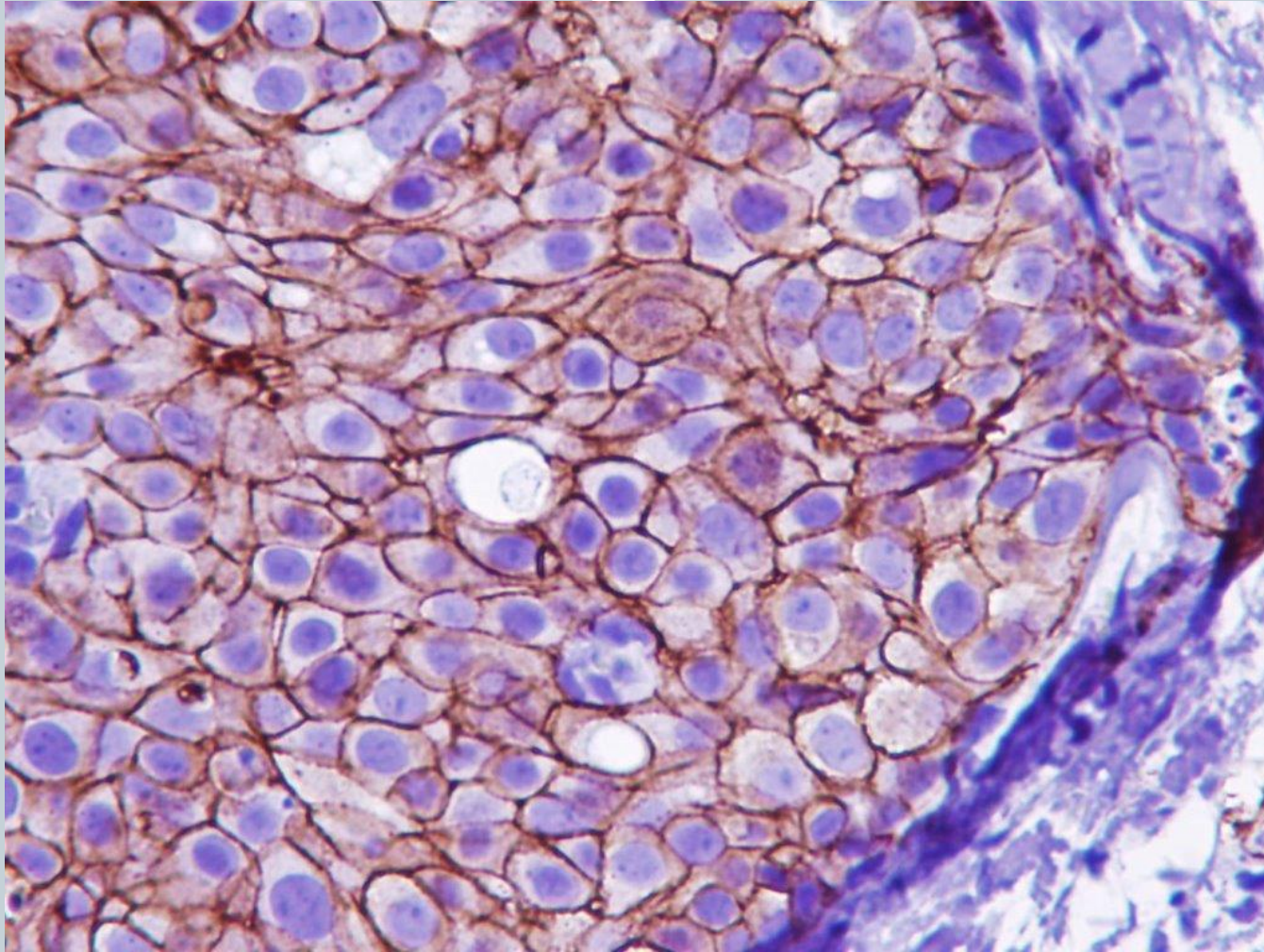
montage
comparing pre-
and post-
chemotherapy

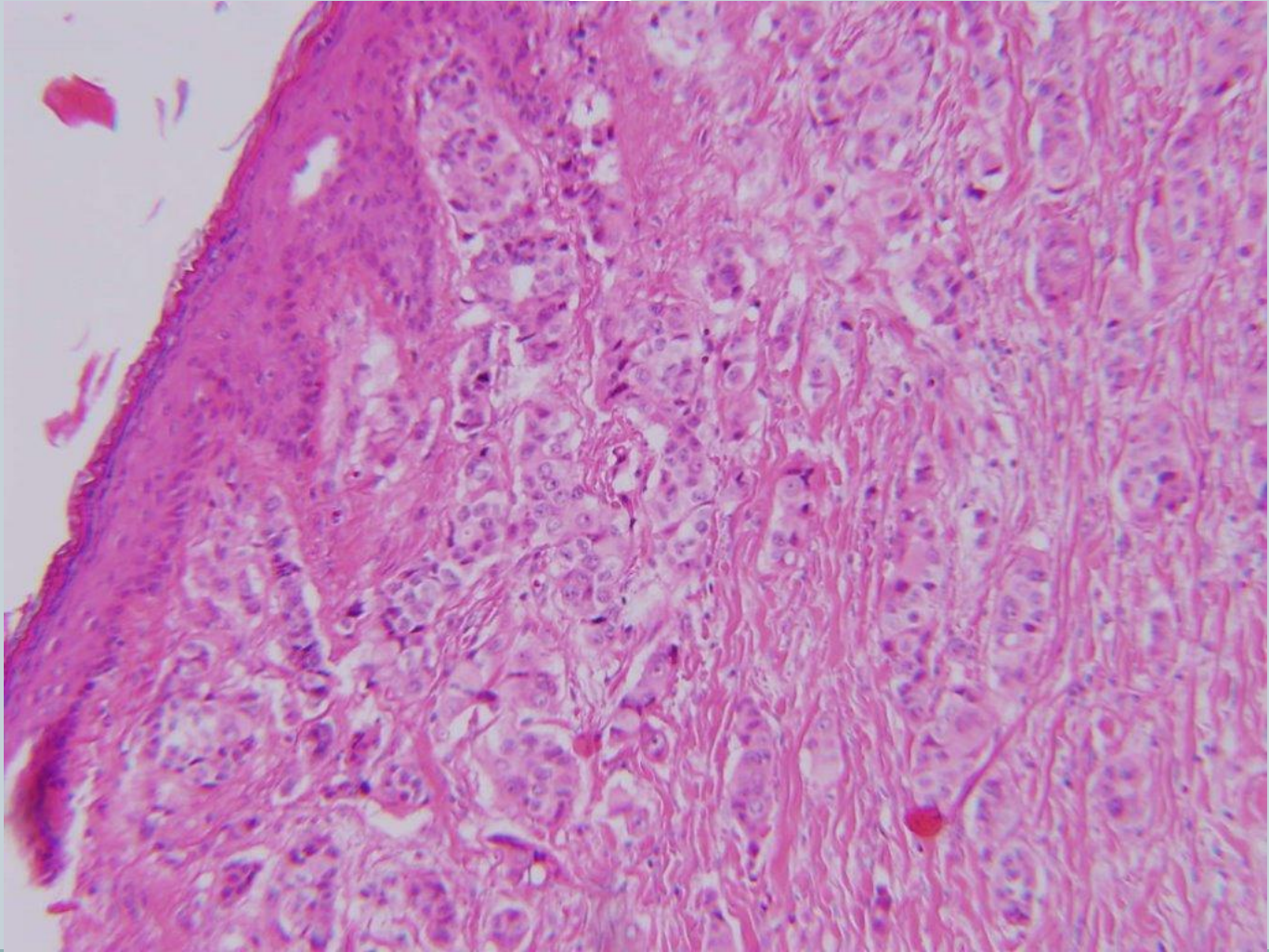


CP: original pathology







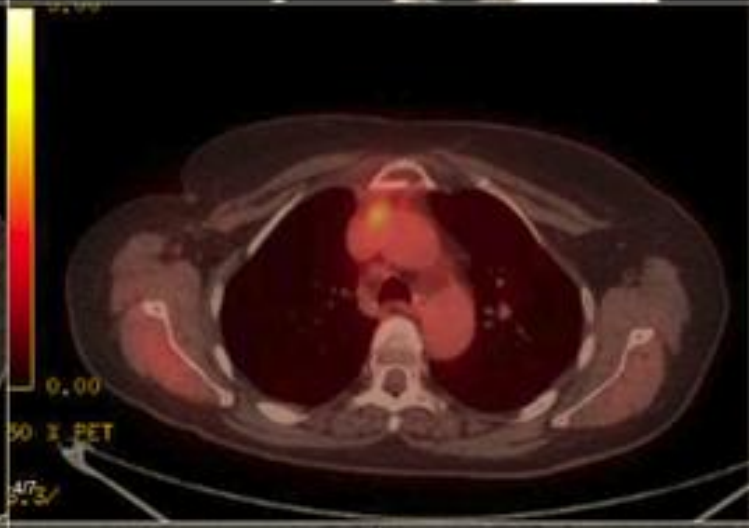
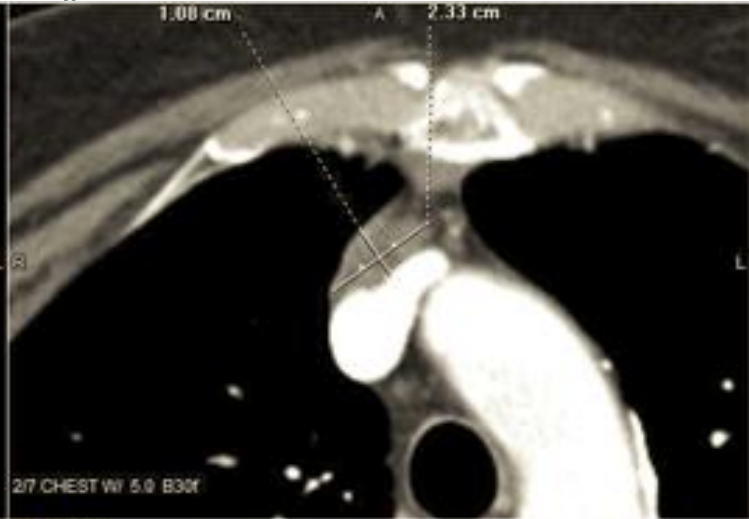
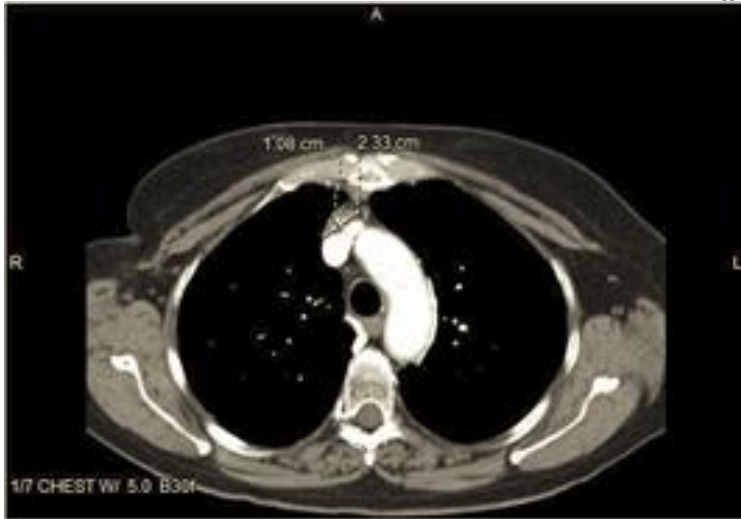


CP follow up, 2014



- Elevated tumor markers prompted PET scan
- Recurrent breast cancer w/ metastatic disease in mediastinum. Biopsy shows ER+/PR-, HER2 – pathology, arising from right breast tumor.

Patient CP, CT-PET July 2014



CP: current management



**PATIENT RECEIVING RADIATION THERAPY
TO MEDIASTINUM**

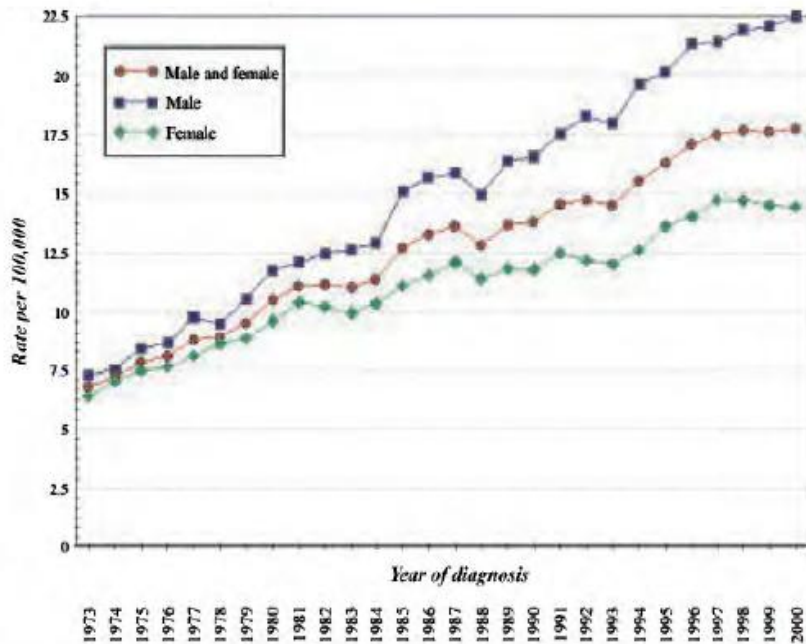
AND SYSTEMIC THERAPY

Case 2: JW

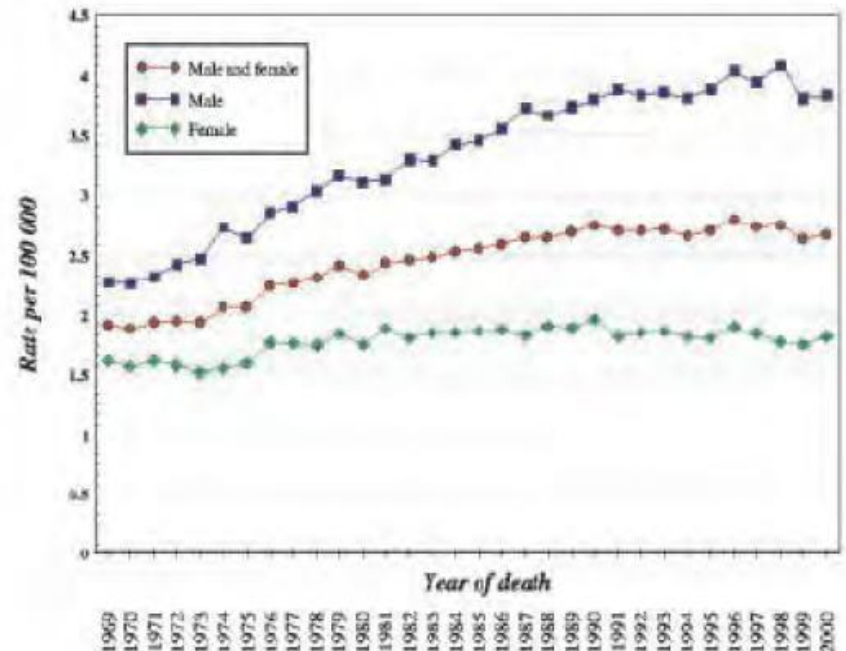


- 67 year old man
- Melanoma of left foot, 2008
- 0.9 mm depth
- Wide excision and SLN bx & excision of 3 lymph nodes. Nodes were negative. No adjuvant therapy.

Melanoma Incidence



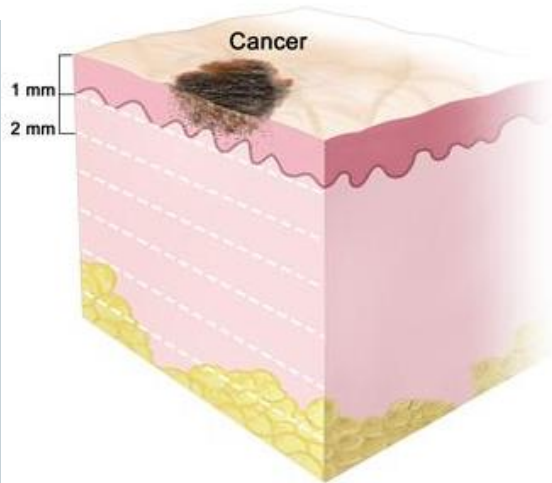
Melanoma Death Rate



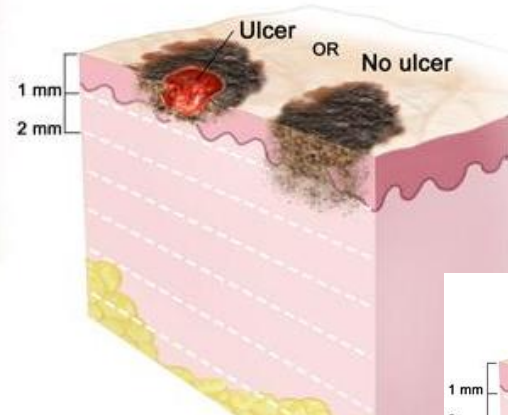
Age-adjusted (2000 U.S. standard population) melanoma mortality rates (per 100 000), total U.S.A., 1969-2000 (data from the SEER Program of the National Cancer Institute).

Stage I and II melanoma

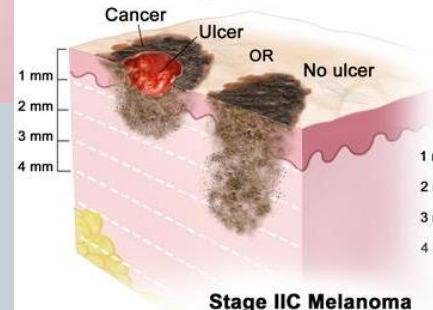
Stage IA Melanoma



Stage IB Melanoma



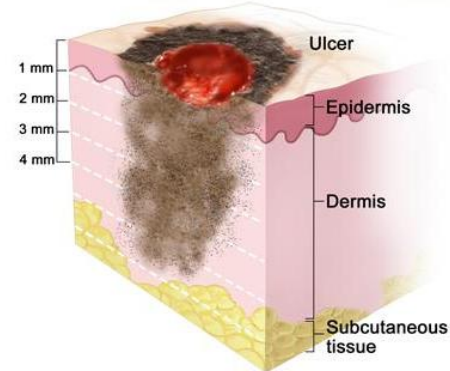
Stage IIA Melanoma



Stage IIB Melanoma



Stage IIC Melanoma



10 year survival rate

93%

71%

59%

36%

Clark's Levels

1

2

3

4

5

10 year survival rate

94%

82%

63%

61%

40%

Breslow Depth (mm)

0 >

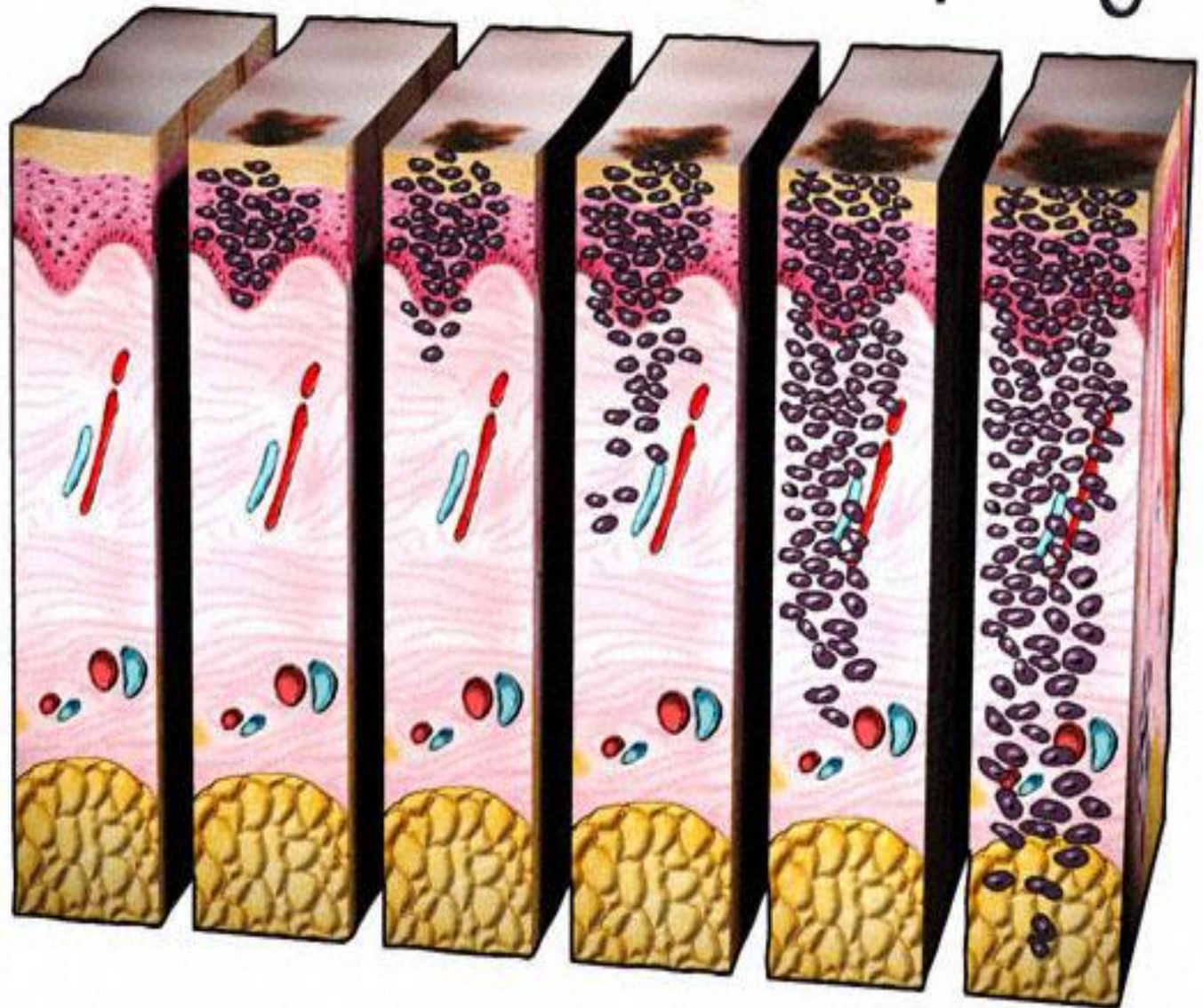
1 >

2 >

3 >

4 >

5 >

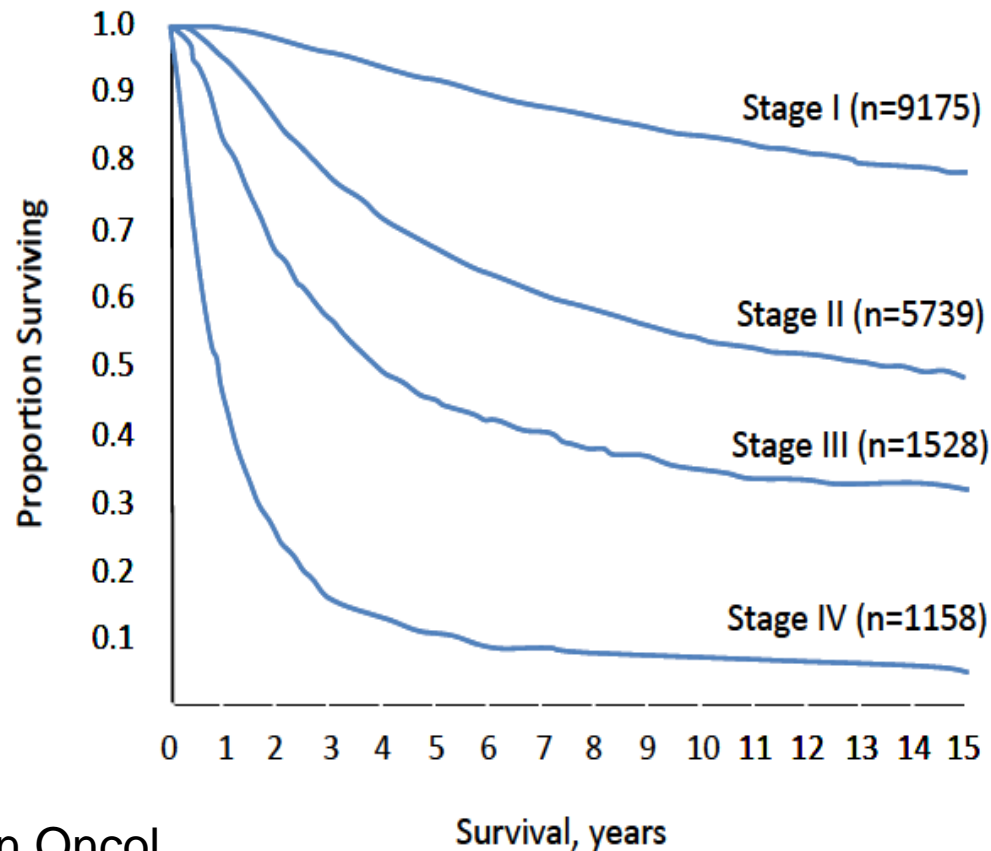


Melanoma staging



ANATOMIC STAGE/PROGNOSTIC GROUPS							
Clinical Staging ^a				Pathologic Staging ^b			
Stage 0	Tis	NO	M0	0	Tis	NO	M0
Stage IA	T1a	NO	M0	IA	T1a	NO	M0
Stage IB	T1b	NO	M0	IB	T1b	NO	M0
	T2a	NO	M0		T2a	NO	M0
Stage IIA	T2b	NO	M0	IIA	T2b	NO	M0
	T3a	NO	M0		T3a	NO	M0
Stage IIB	T3b	NO	M0	IIB	T3b	NO	M0
	T4a	NO	M0		T4a	NO	M0
Stage IIC	T4b	NO	M0	IIC	T4b	NO	M0
Stage III	Any T	≥ N1	M0	IIIA	T1-4a	N1a	M0
					T1-4a	N2a	M0
				IIIB	T1-4b	N1a	M0
					T1-4b	N2a	M0
					T1-4a	N1b	M0
					T1-4a	N2b	M0
				IIIC	T1-4a	N2c	M0
					T1-4b	N1b	M0
					T1-4b	N2b	M0
					T1-4b	N2c	M0
	Any T				N3	M0	
Stage IV	Any T	Any N	M1	IV	Any T	Any N	M1

Cutaneous Melanoma: 15-Year Survival by Stage



JW: 3 years after original treatment



May 2011 - core biopsies from left thigh: melanoma

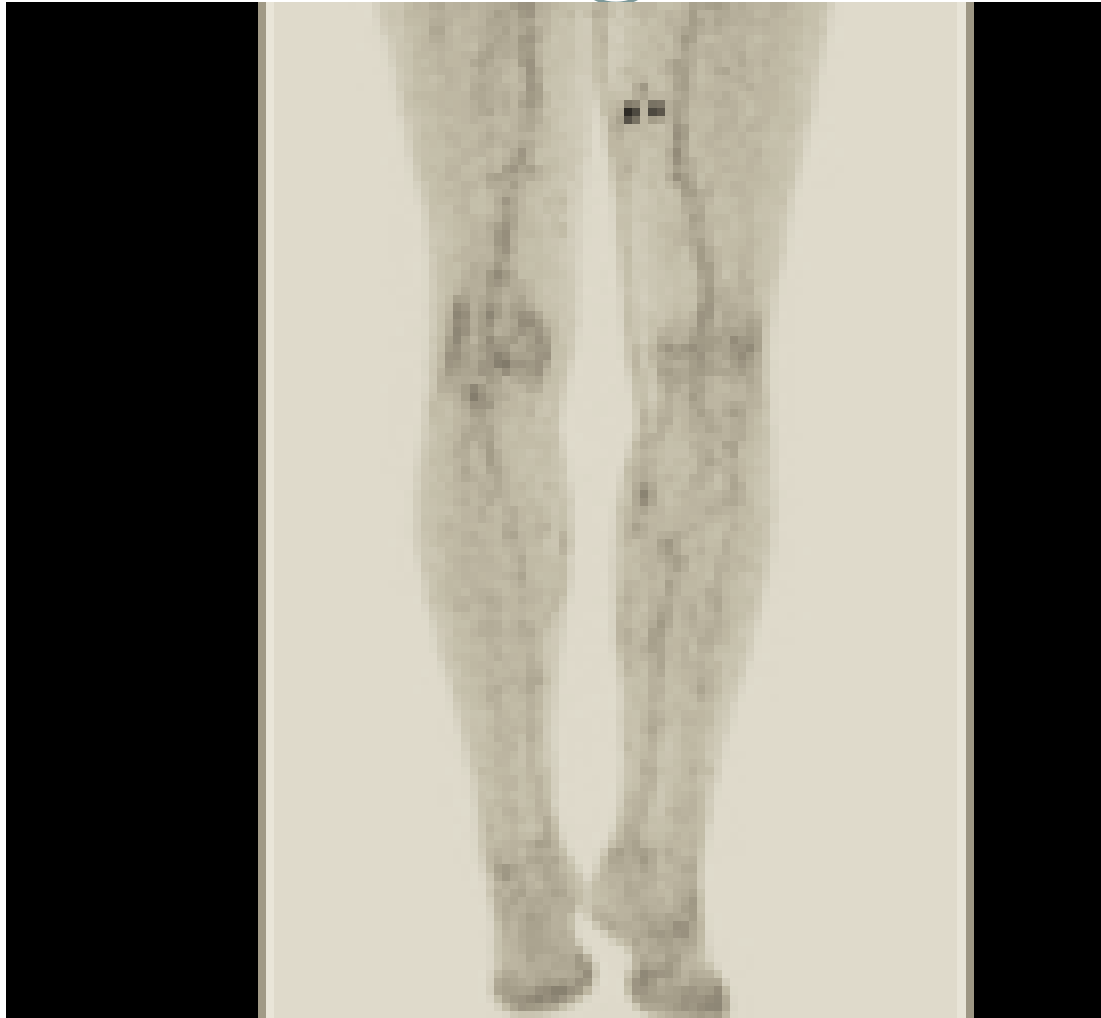
May 2011 - PET scan: increased FDG uptake in the left upper thigh compatible with in-transit metastatic disease.

Repeat excision followed by RT in Dec 2011 for locally recurrent disease.

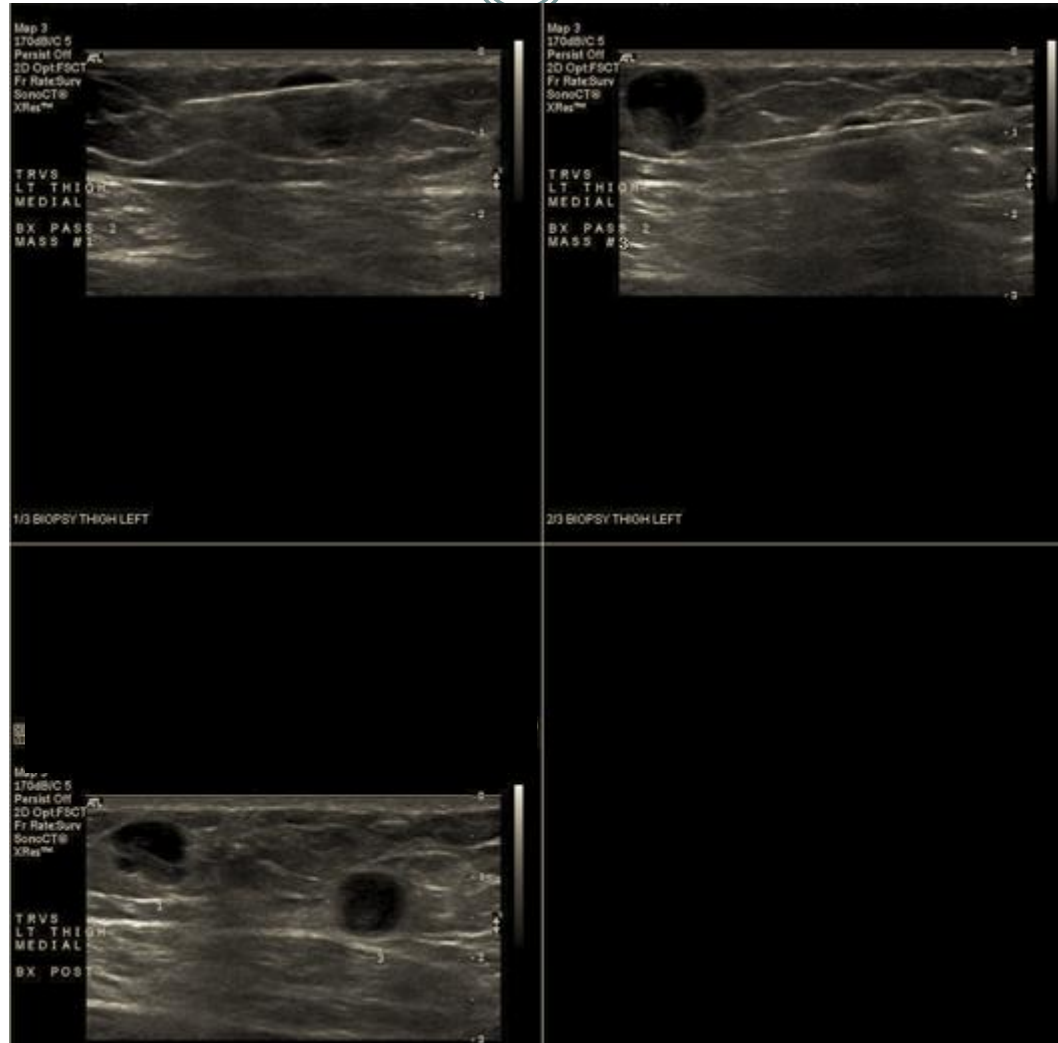
Jan 2012 - PET scan: no evidence of metastatic disease.

Aug 2012 - PET scan: 1cm right lung nodule. CT guided biopsy showing metastatic melanoma. BRAF was non-mutated.

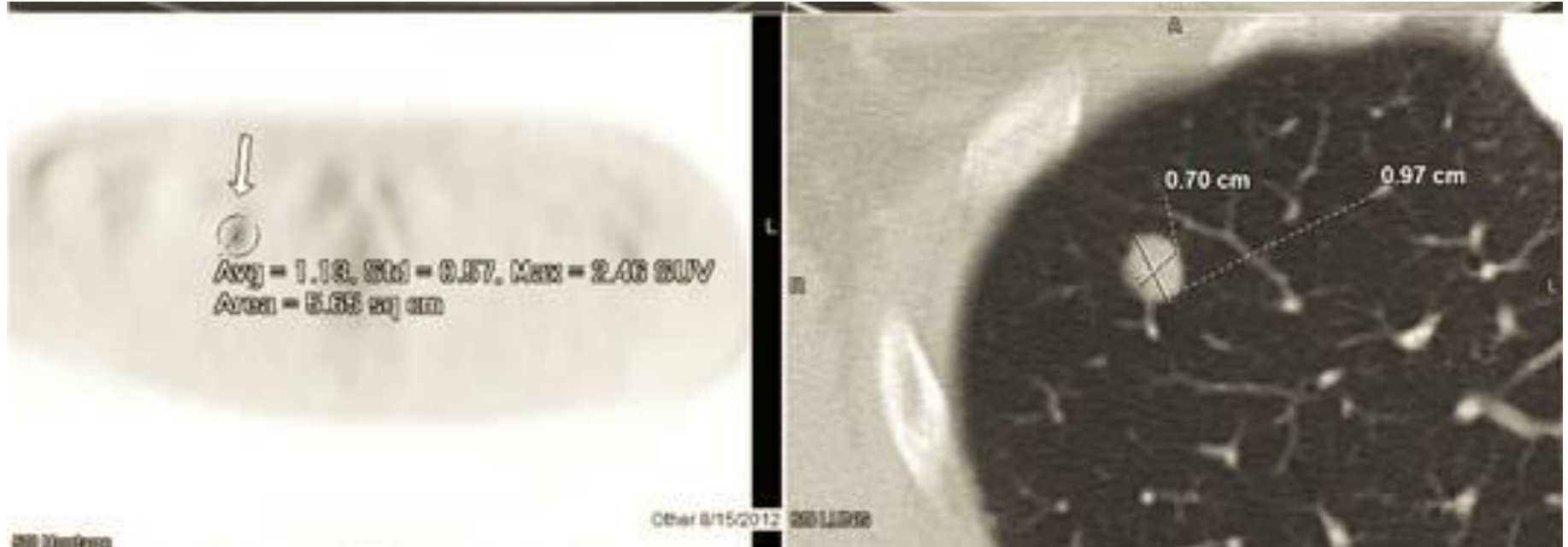
JW PET scan Oct 2011



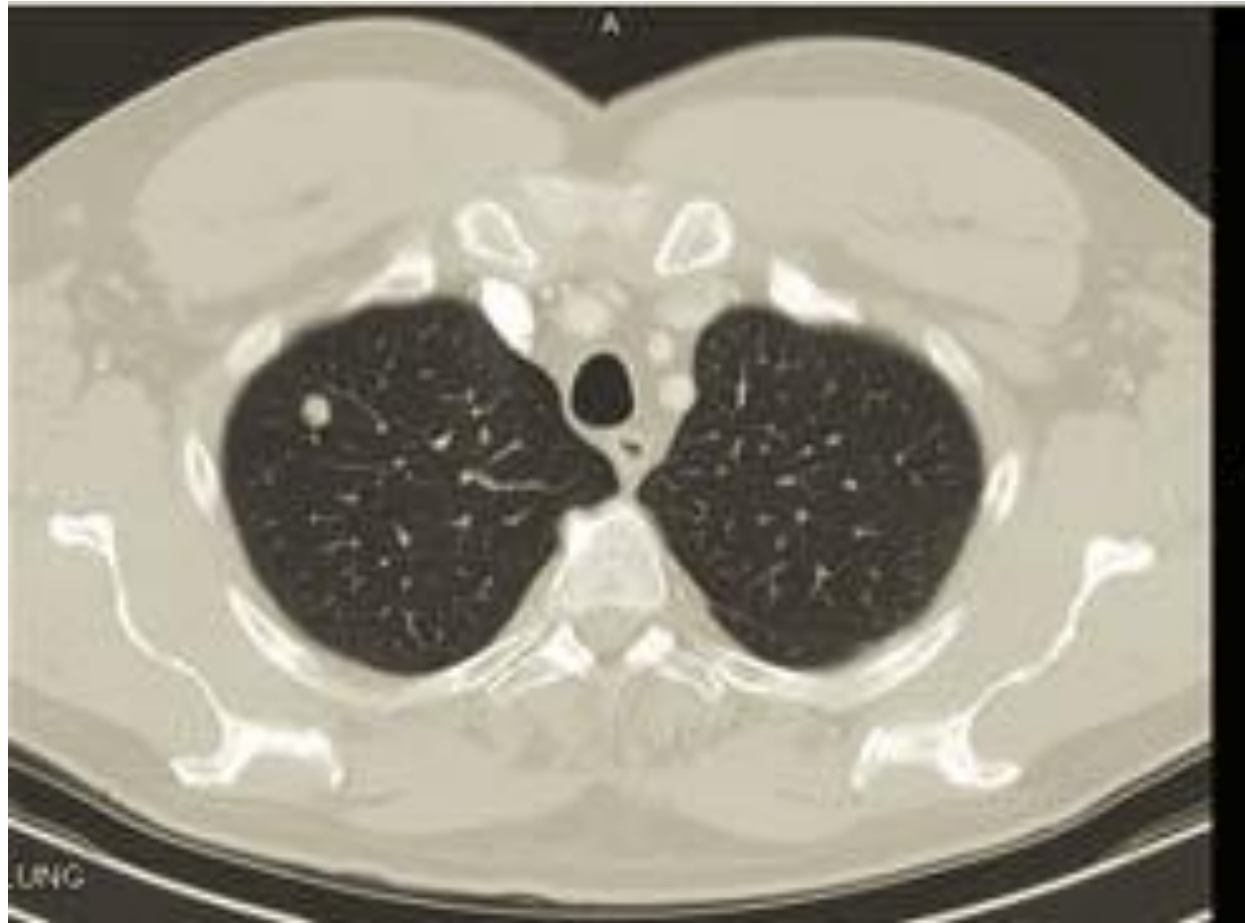
JW: US of left thigh, May 2011



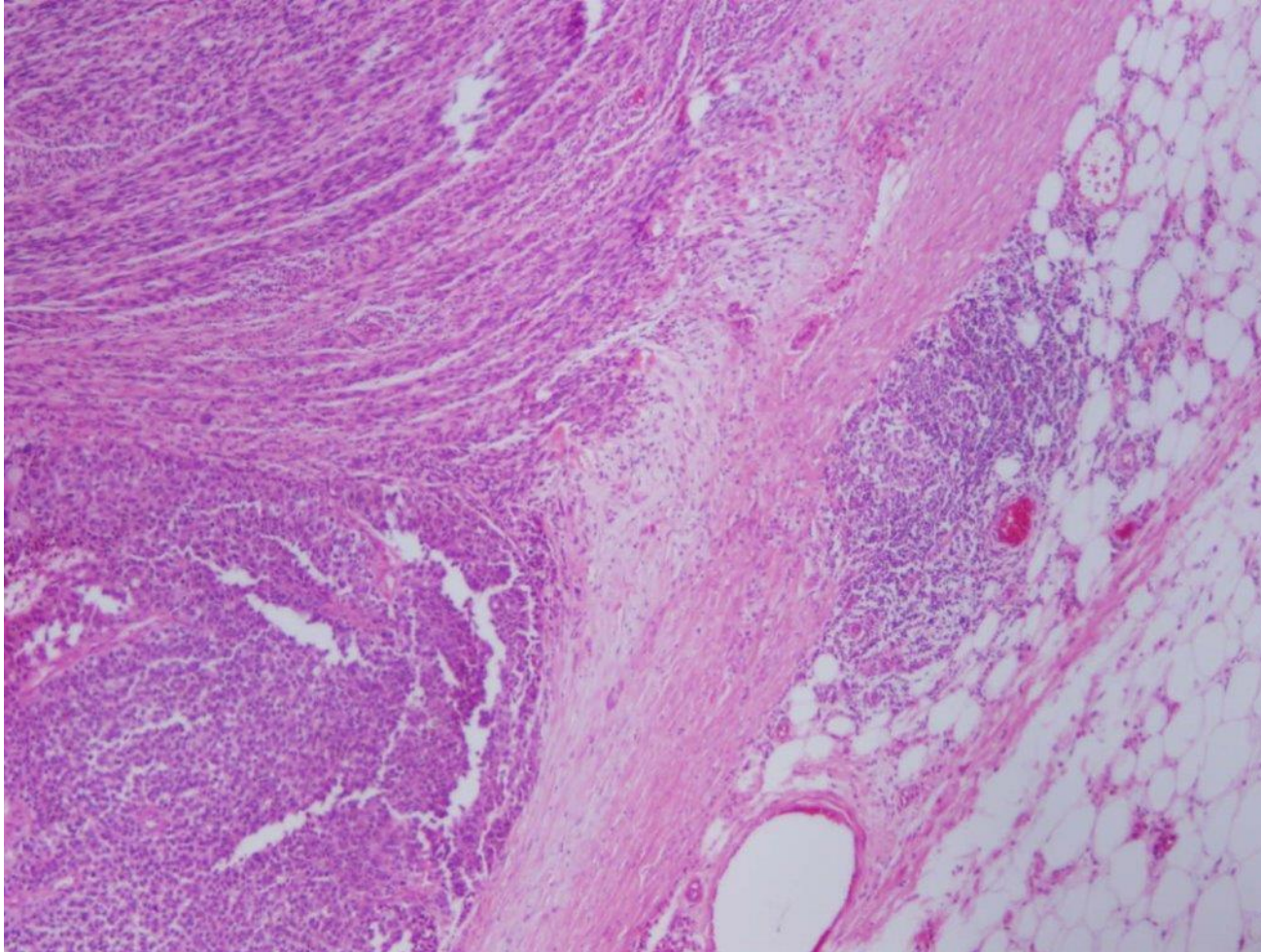
JW: CT scan Aug 2012

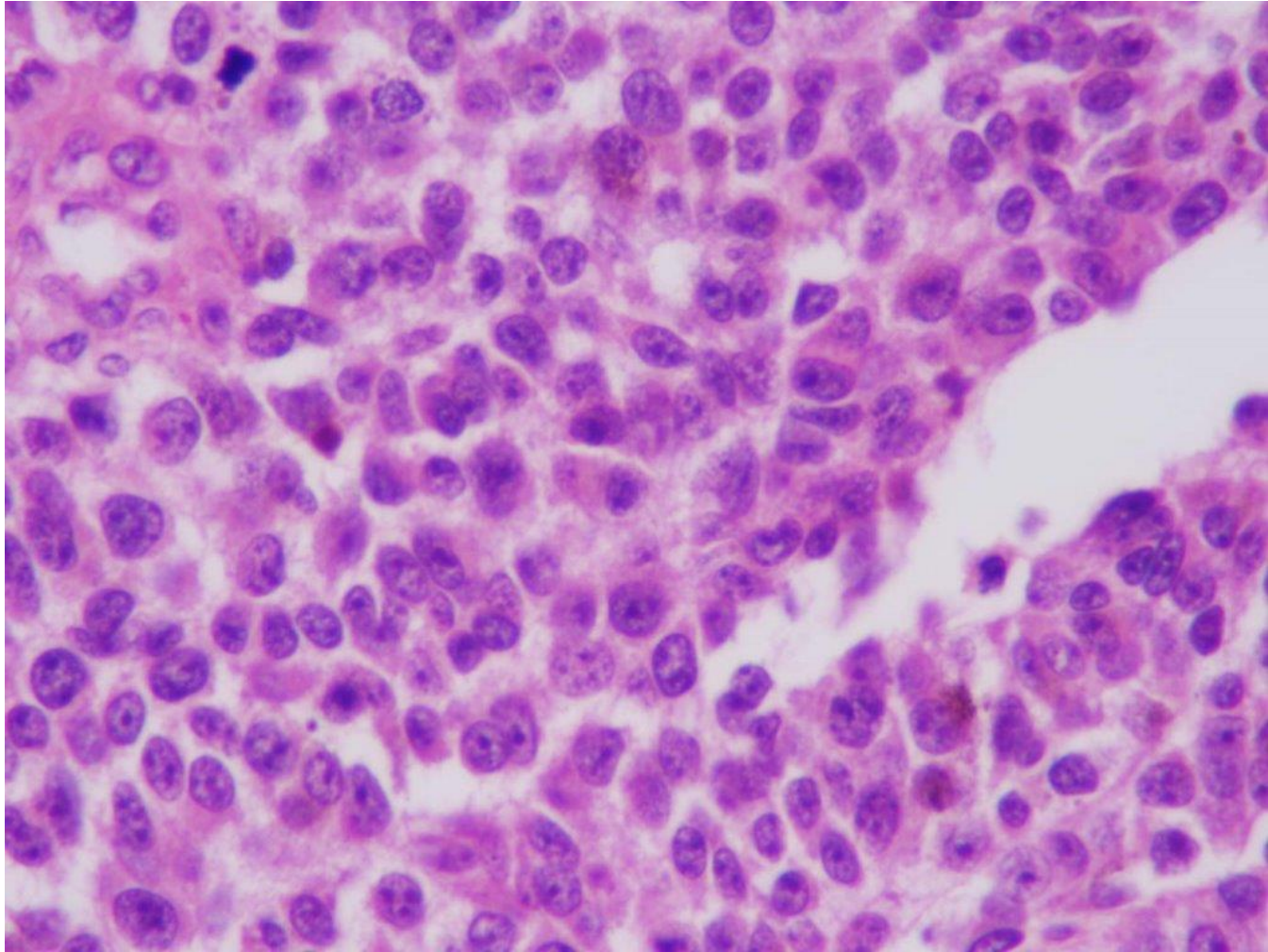


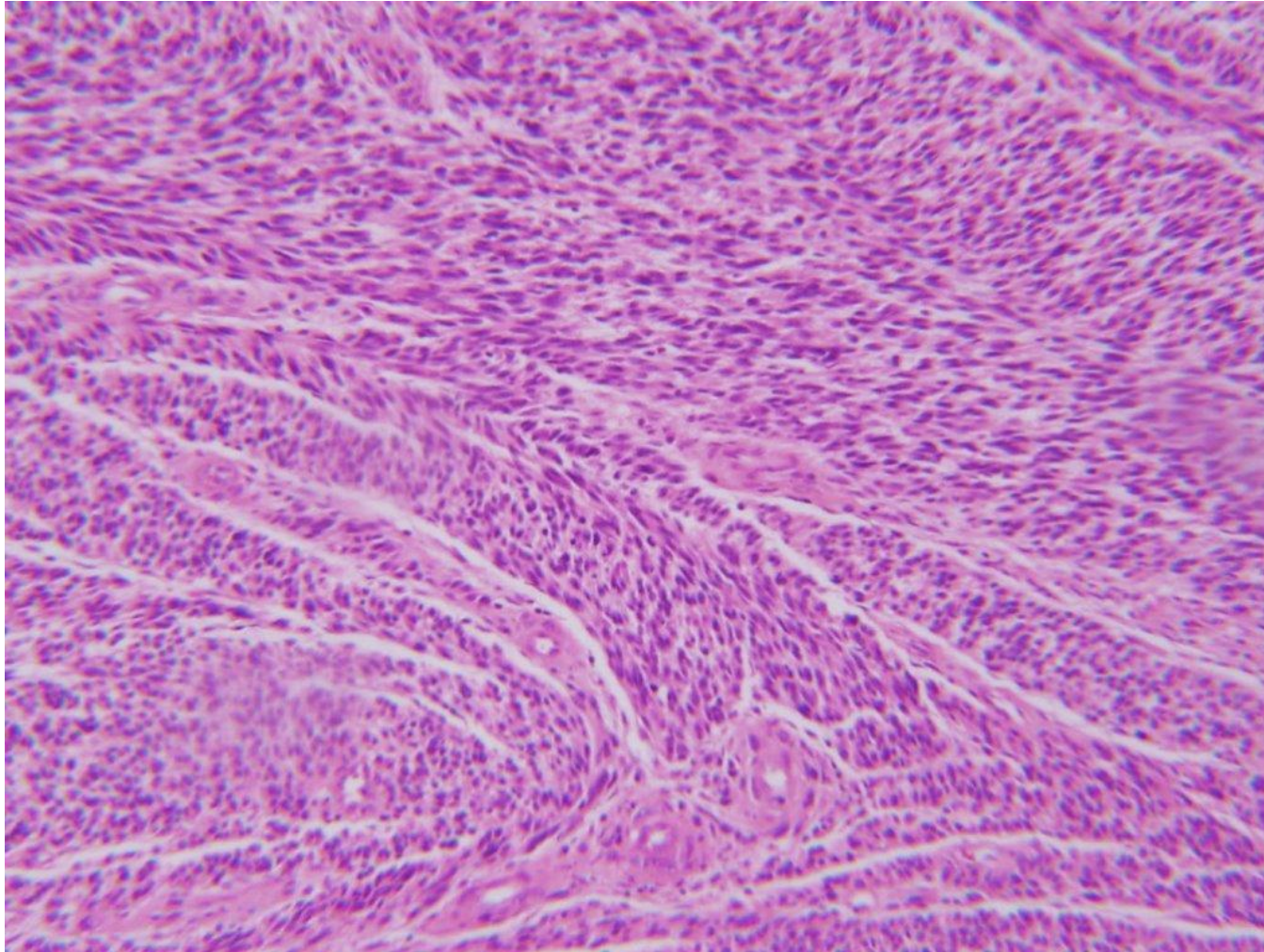
JW: CT scan Aug 2012

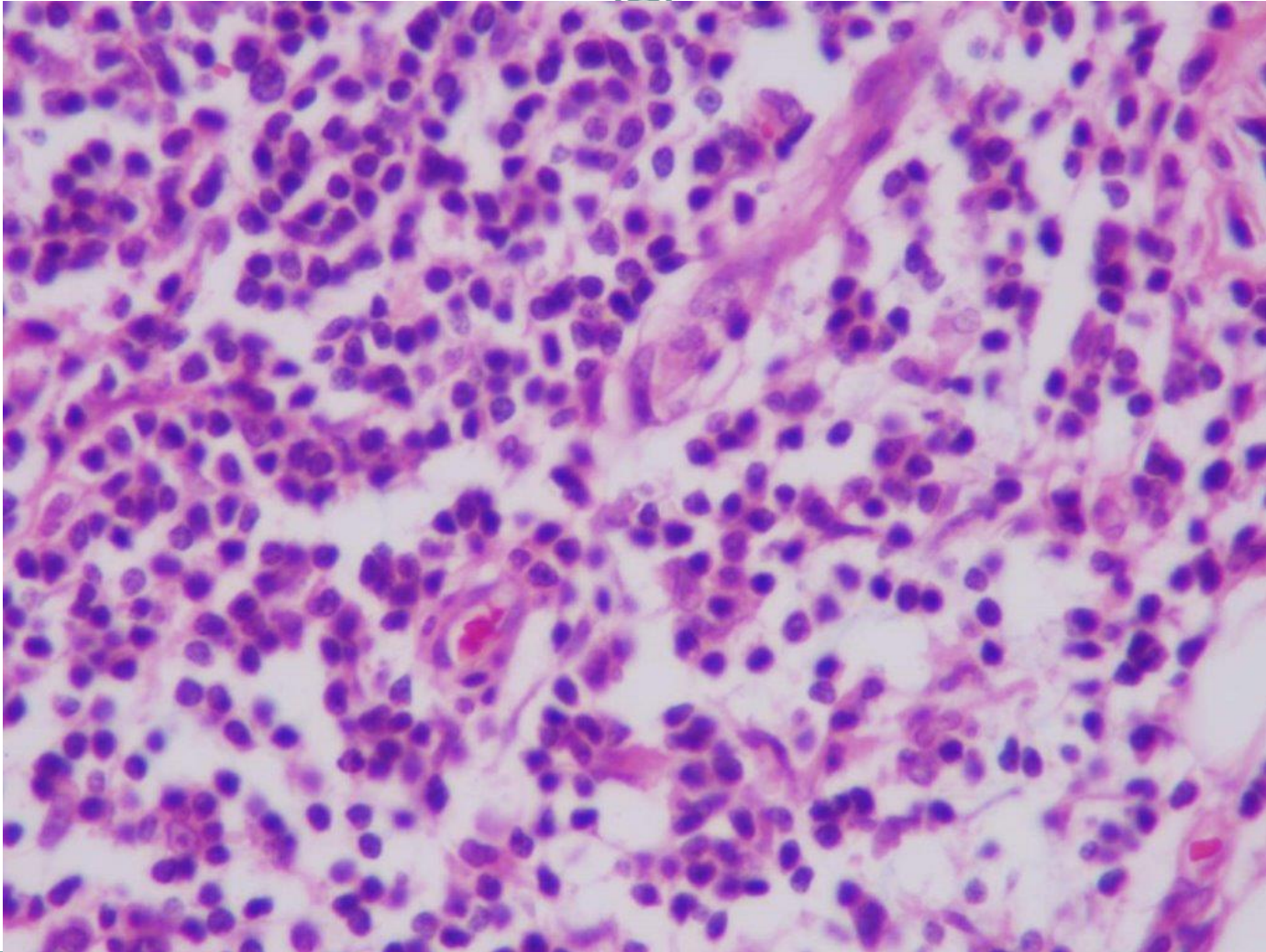


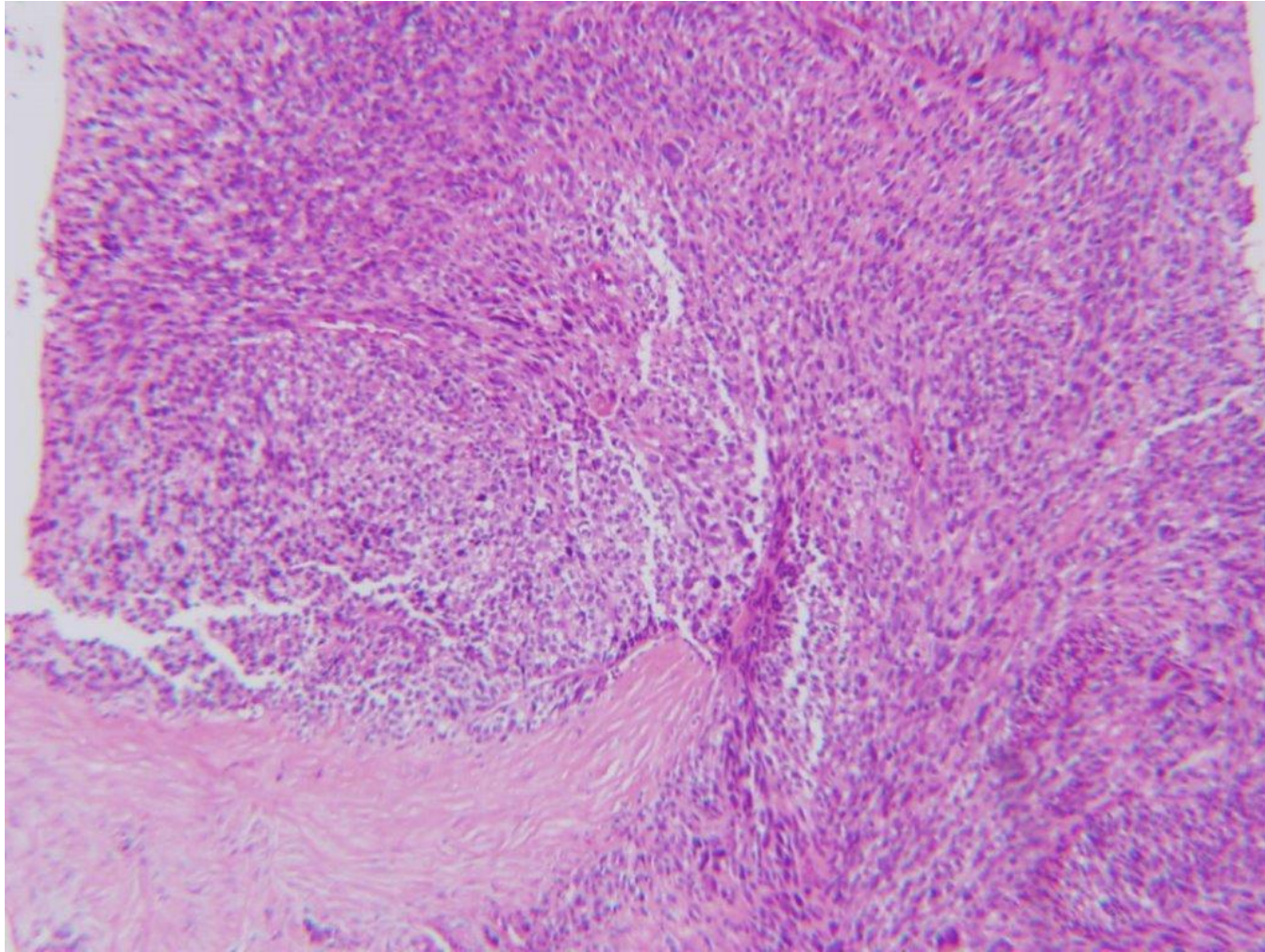
JW pathology

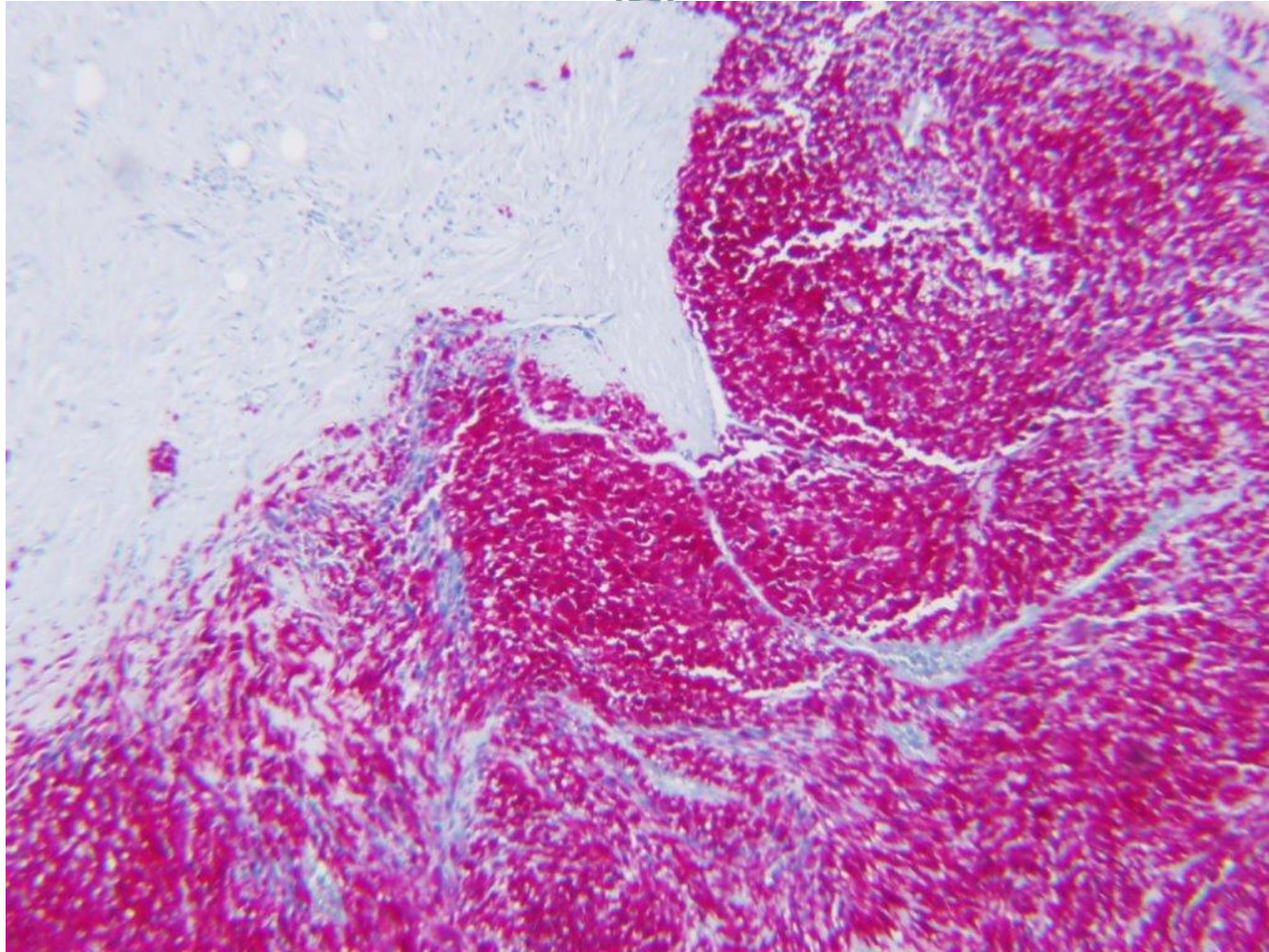




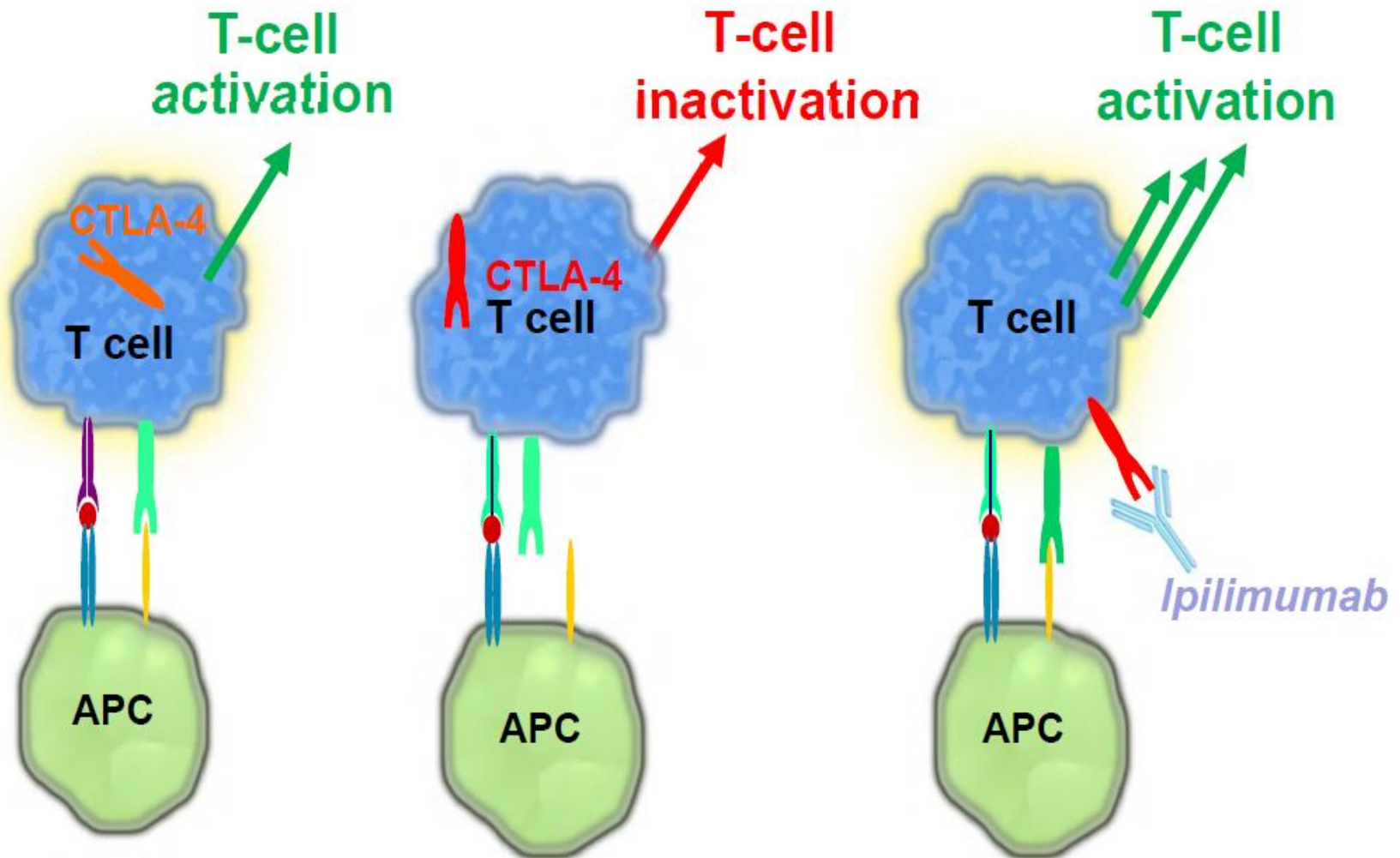




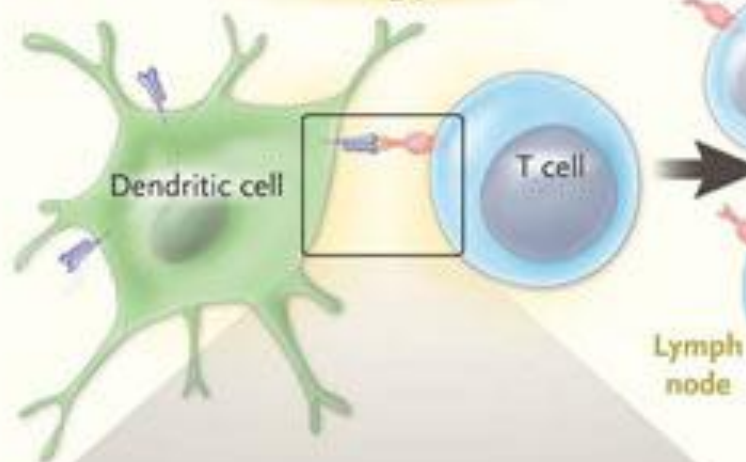




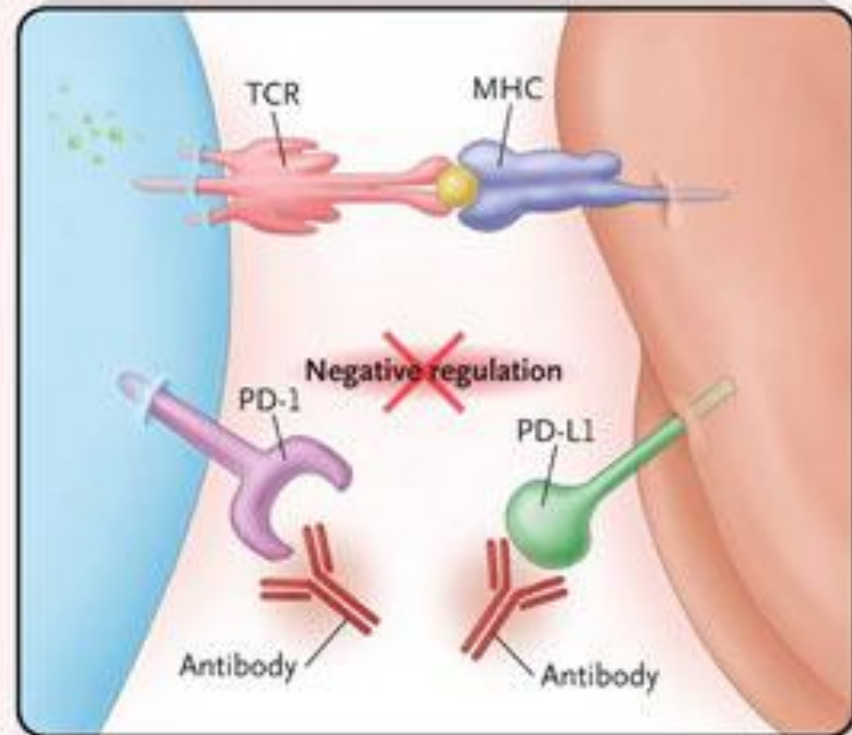
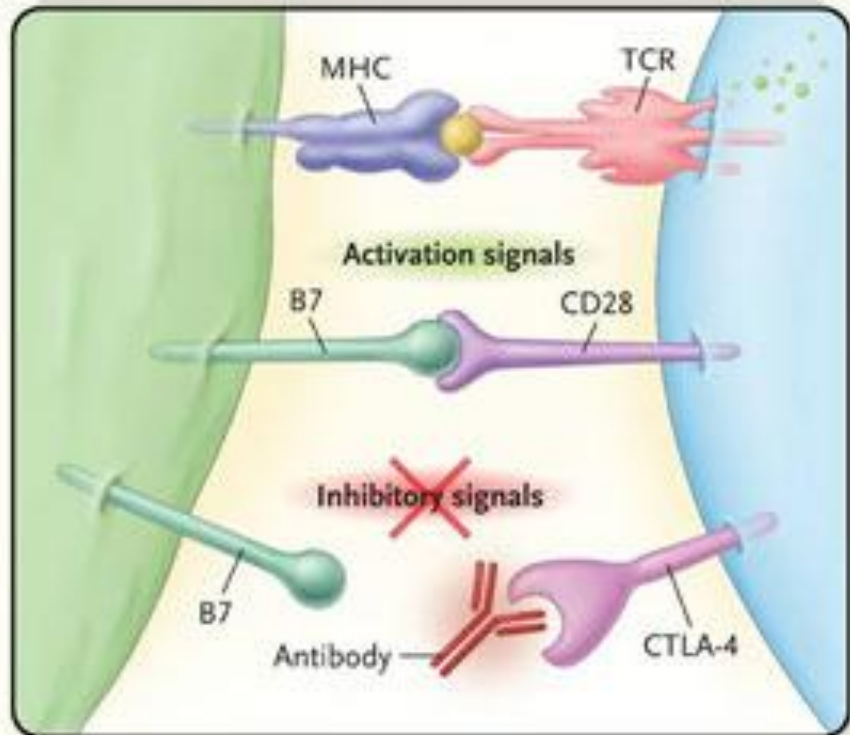
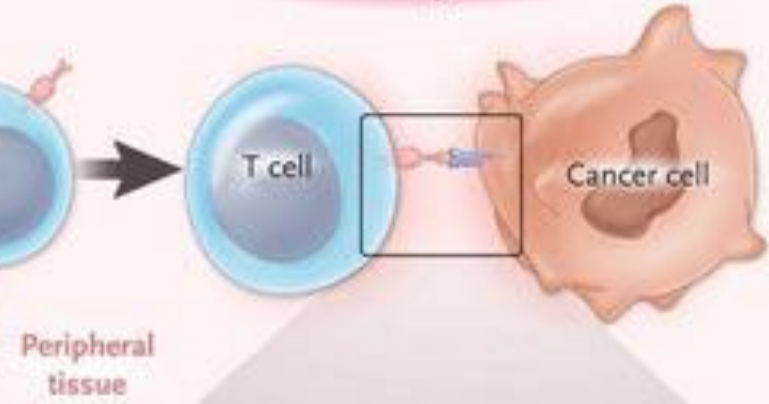
Targeted Immunotherapy CTLA4 Blockade Taking the Brakes Off T-Cell Activation



Priming phase



Effector phase



PD-1/PD-L1 inhibiting reagents in clinical development

Target	Agent	Class	K_D
PD-1	Nivolumab (MDX1106, BMS936558, BMS-ONO)	IgG4 fully human antibody	3 nM
	MK-3475 (lambrolizumab, Merck)	IgG4 engineered humanized antibody	29 pM
	Pidilizumab (CT-011, CureTech-Teva)	IgG1 humanized antibody	-
	AMP-224 (Amplimmune-GSK)	Fc-PD-L2 fusion protein	-
PD-L1	BMS935559 (MDX-1105, BMS-ONO)	IgG4 fully human antibody	-
	MPDL3280A (Genentech)	IgG1 engineered fully human antibody	-
	MEDI4736 (MedImmune, AZ)	IgG1 engineered fully human antibody	-
	MSB0010718C (Merck-Serono)	NA	-

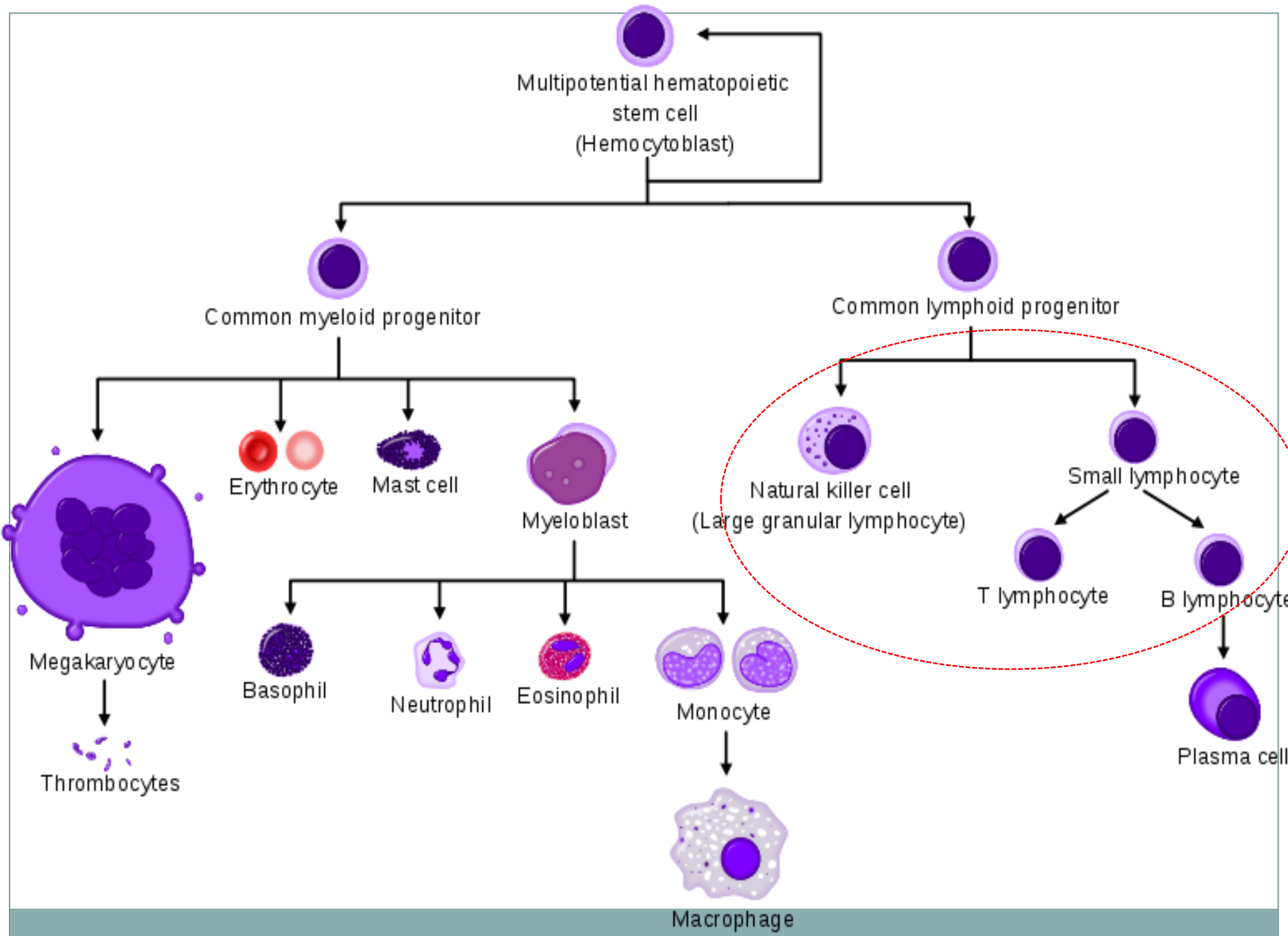
Case 3: JC

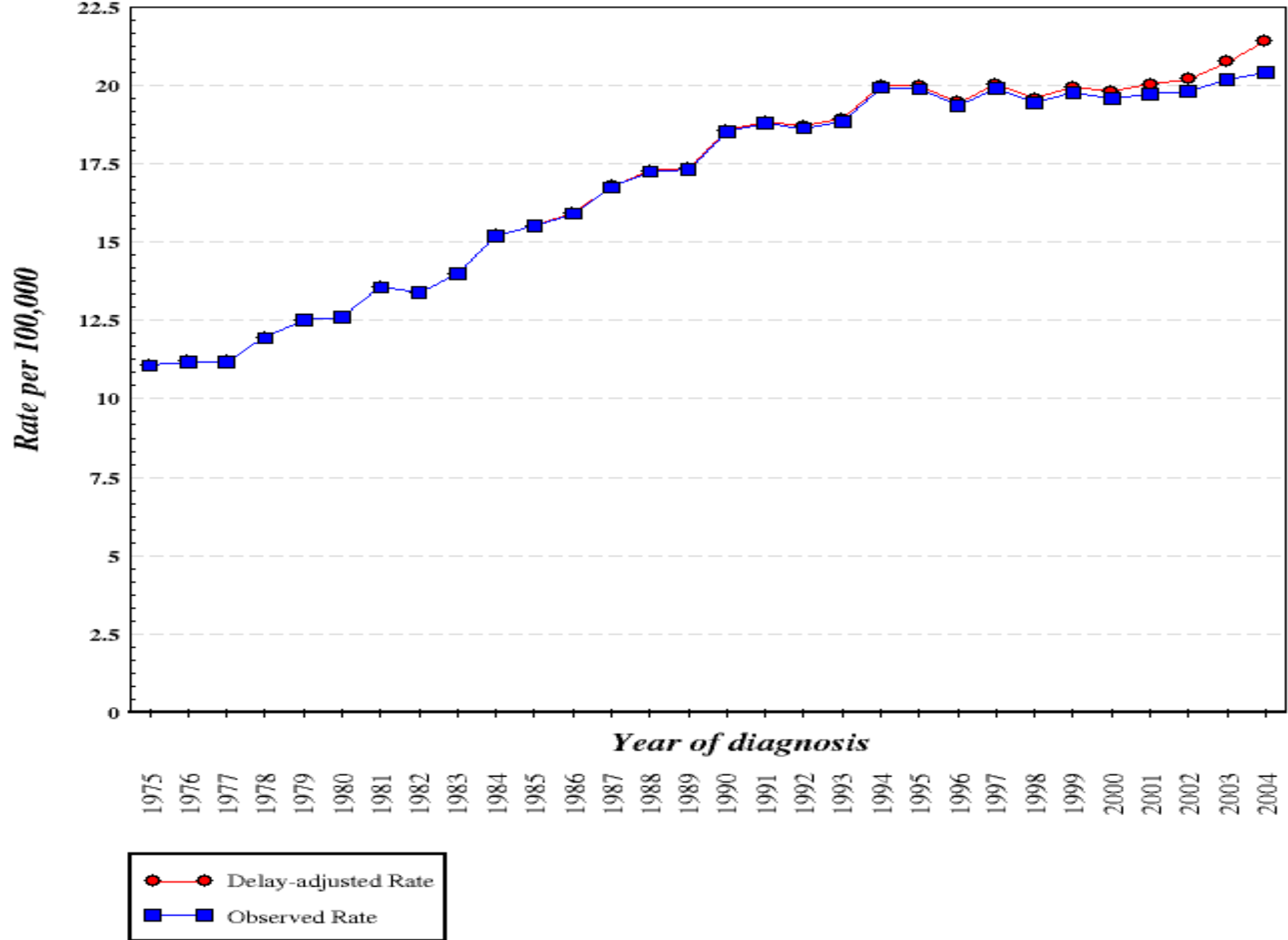


54-year-old man

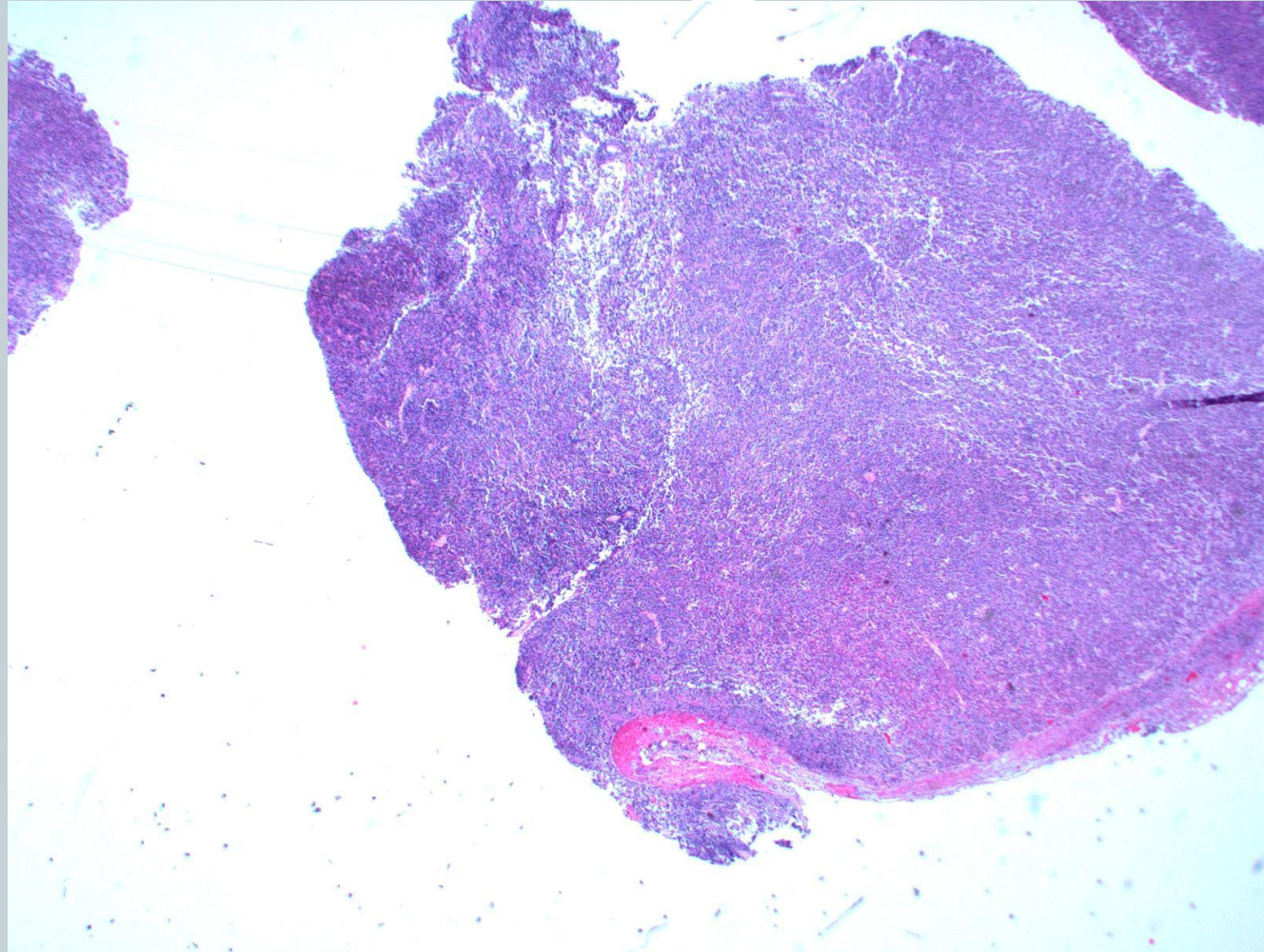
stage IVB high-grade B-cell lymphoma
(GCB* diffuse large B-cell lymphoma)
with double hit features

*(germinal center B-cell type)

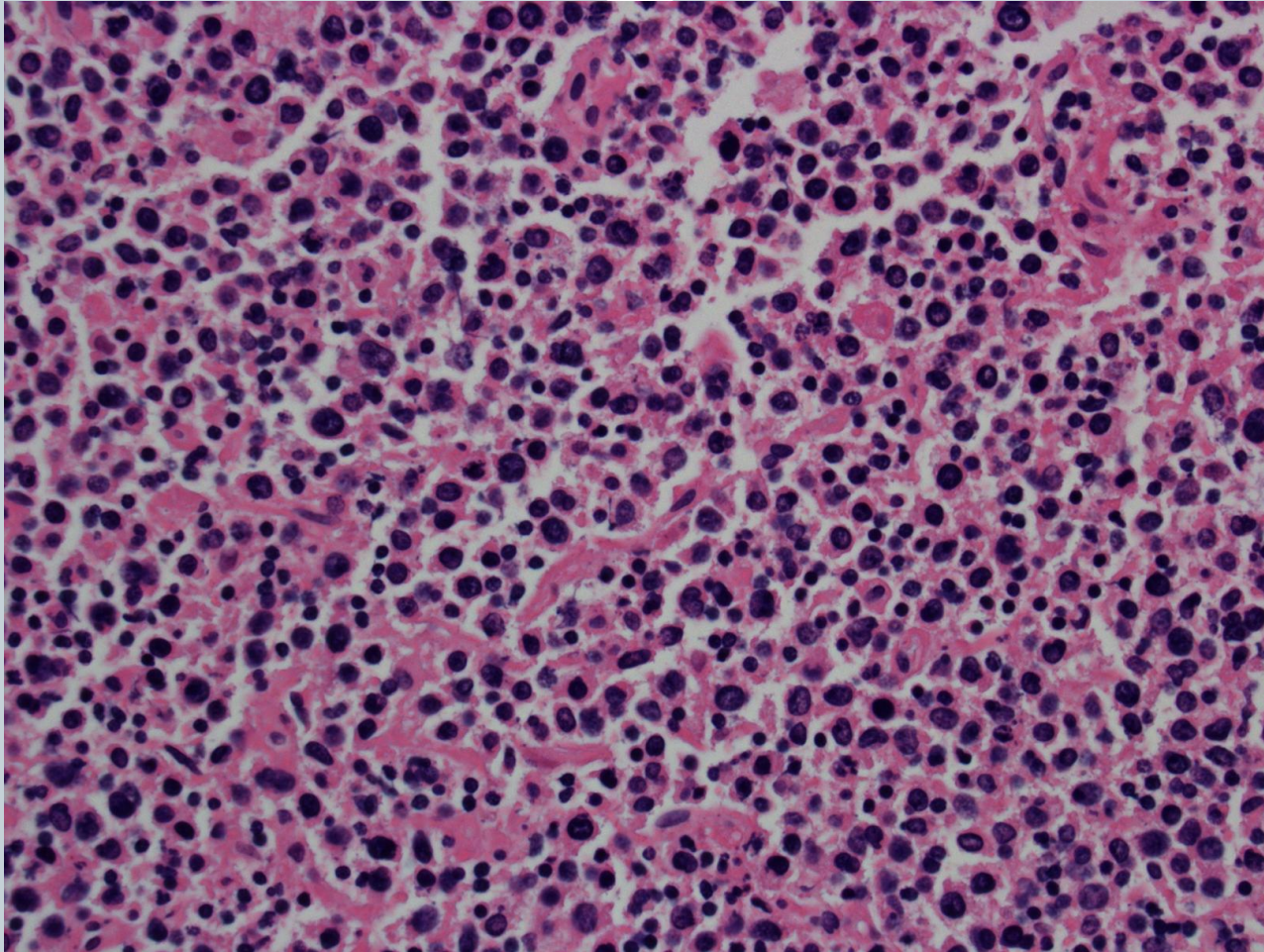




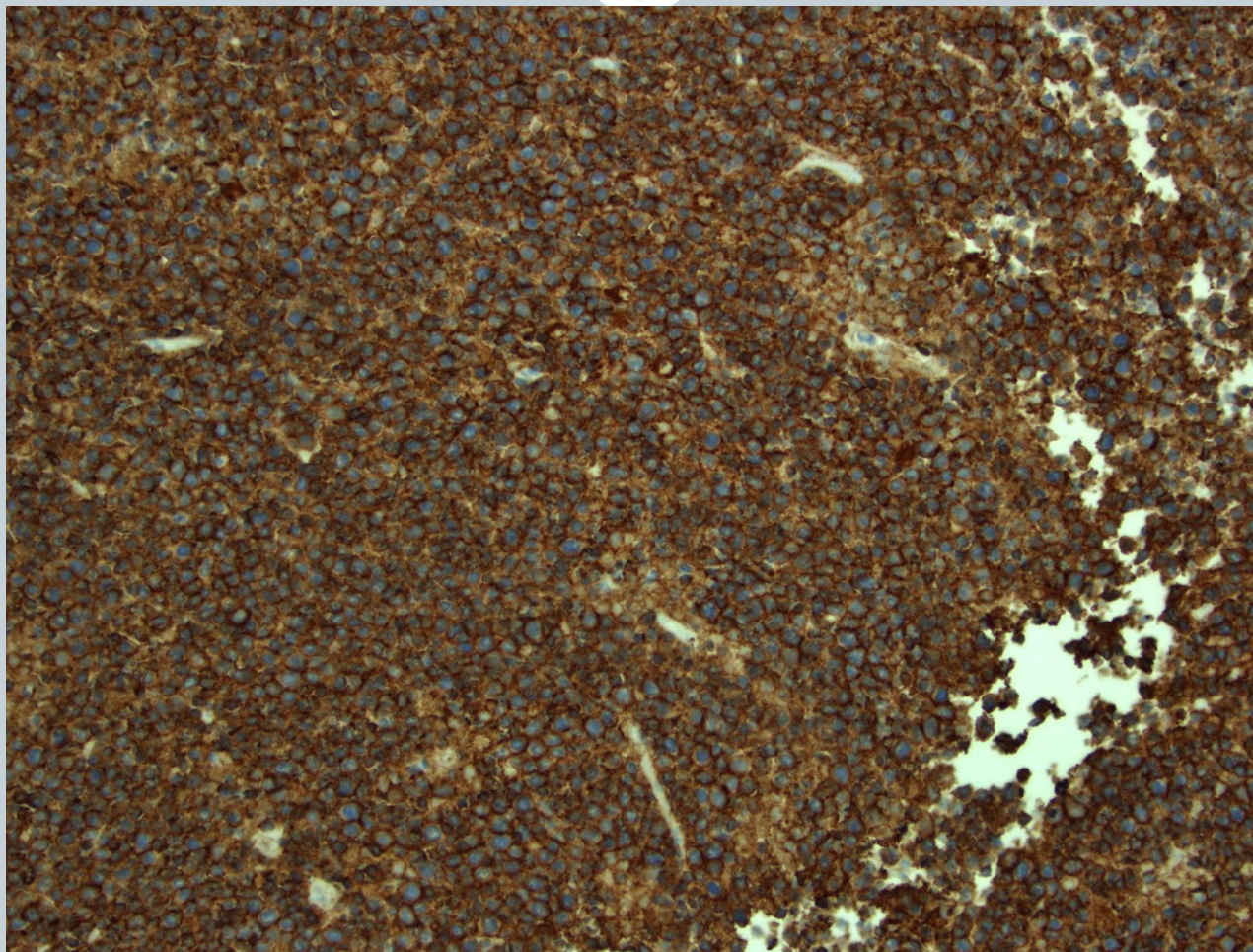
May 2014 right cervical lymph node low power view



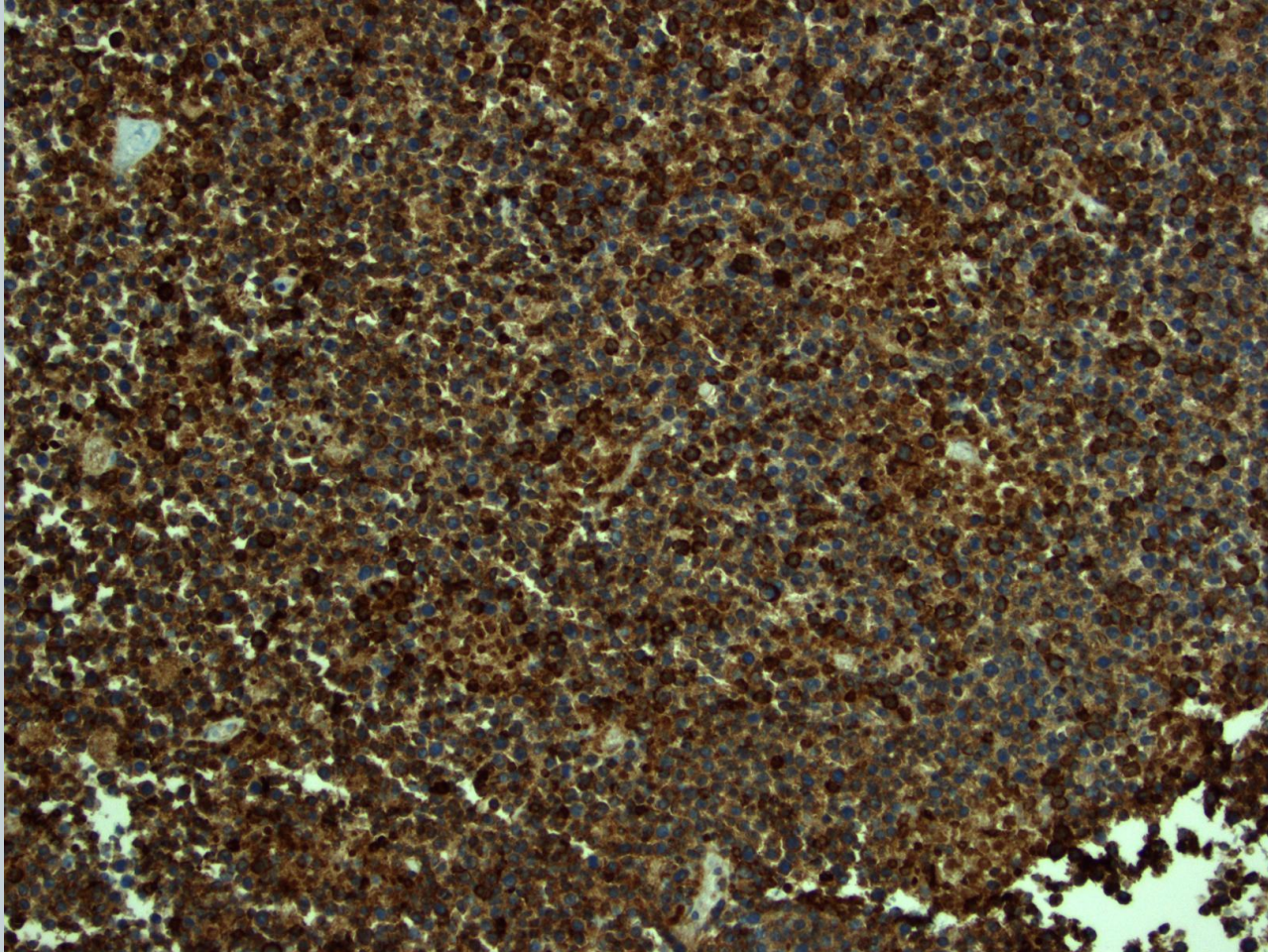
High power view



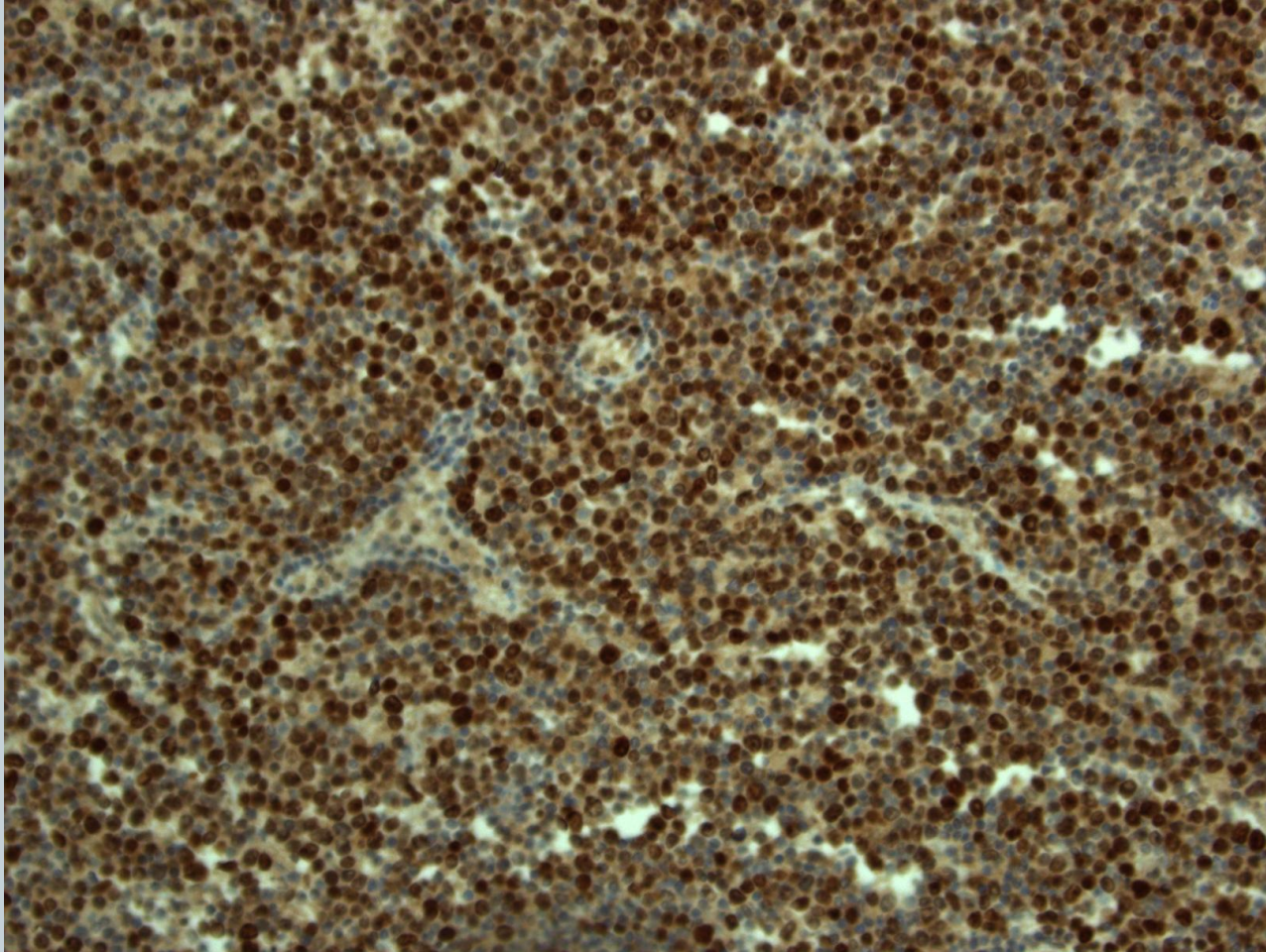
CD 20 +



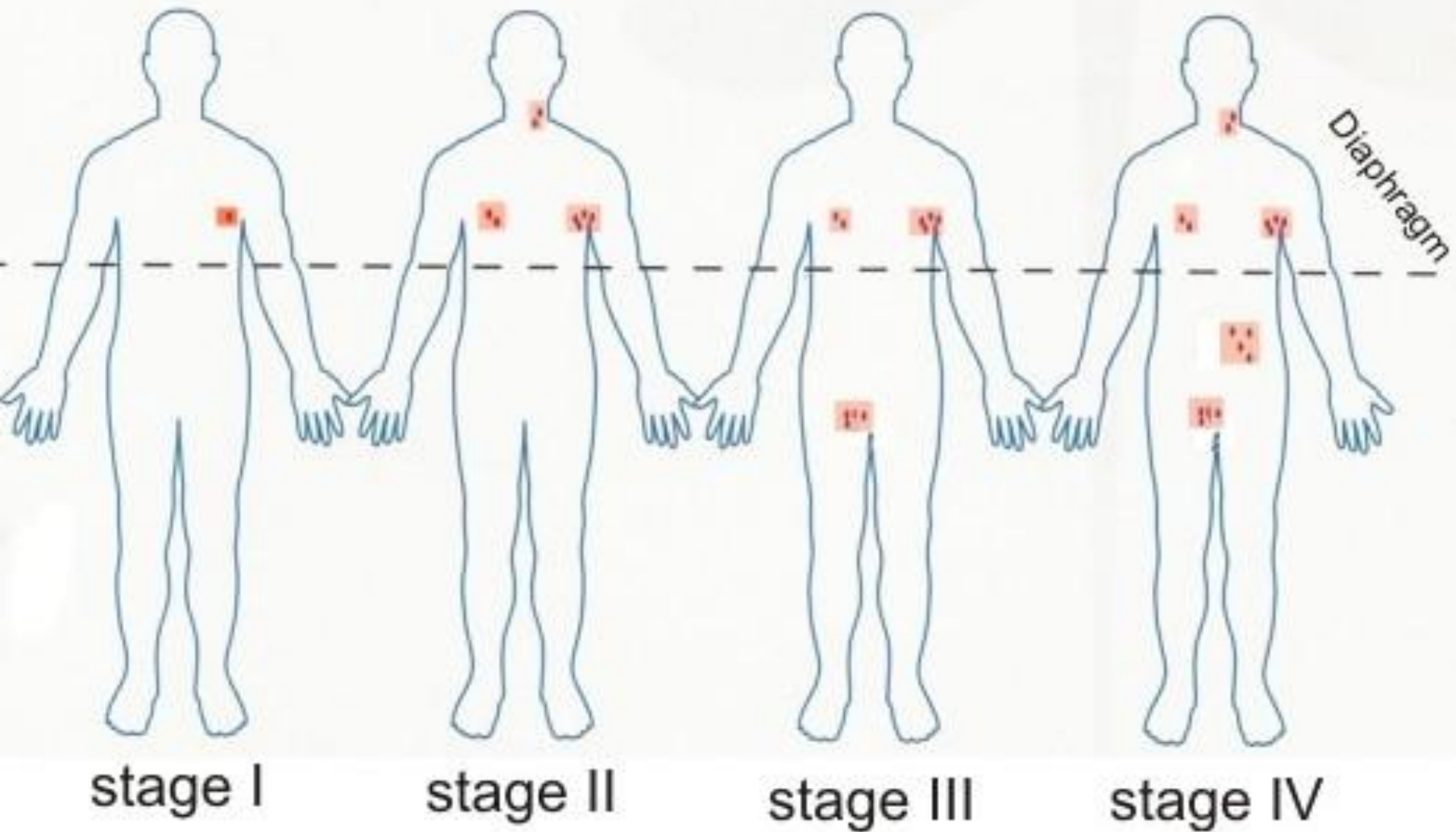
CD 10+

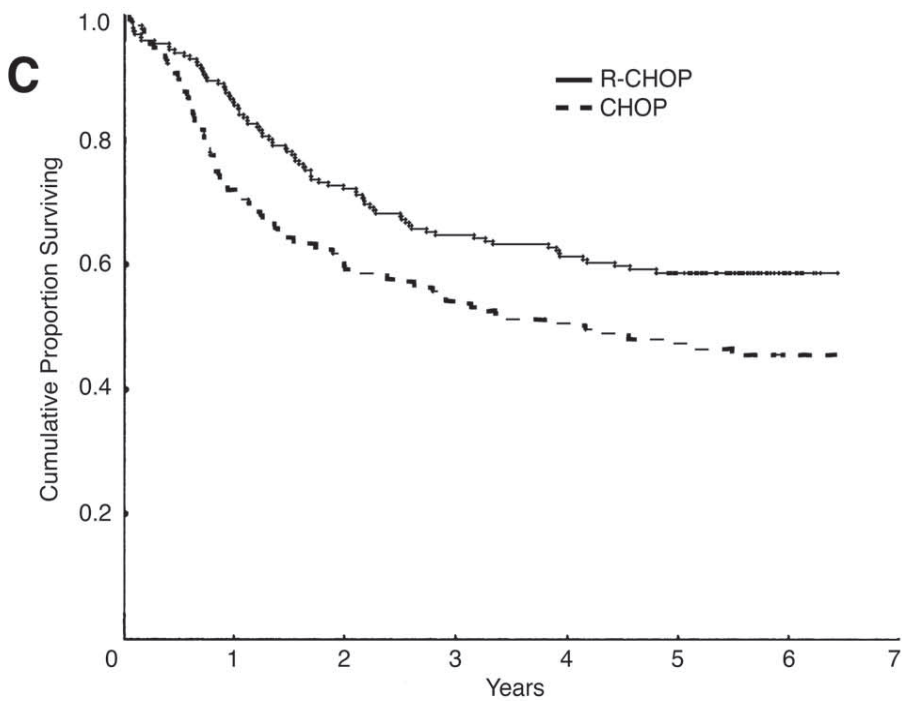
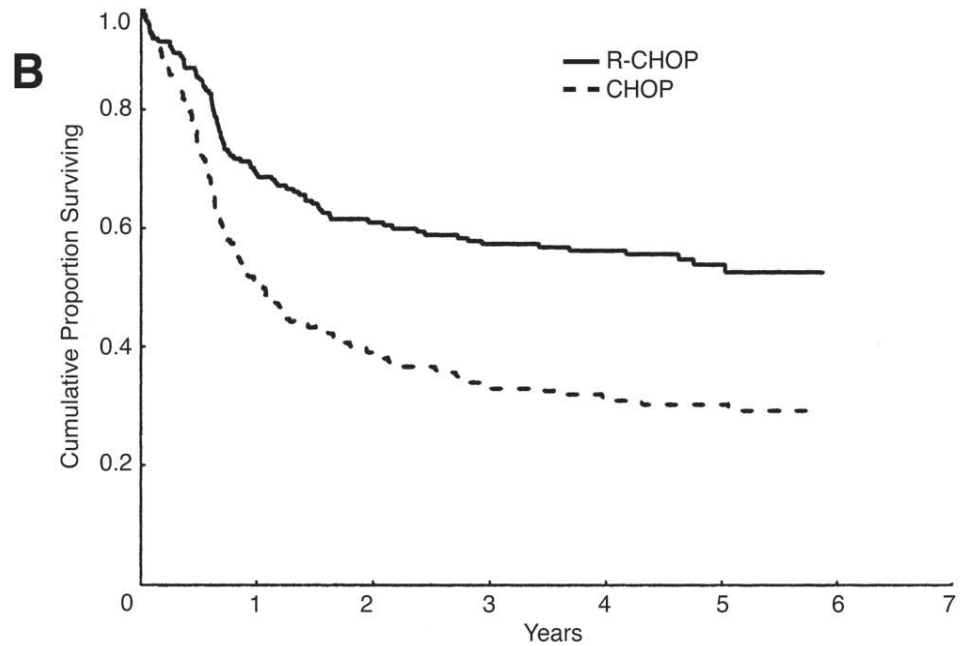
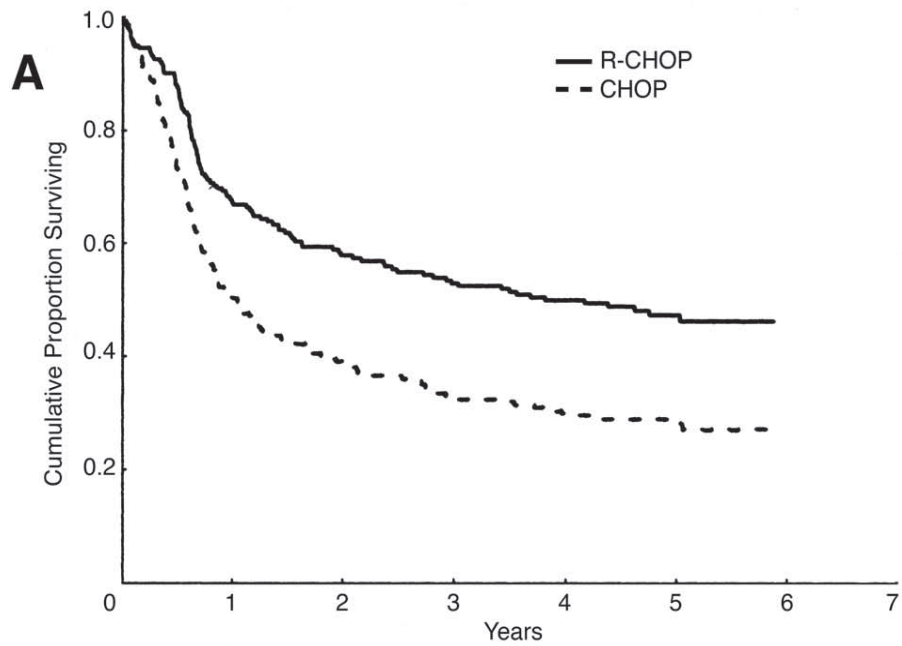


Ki 67 – 90% +



Staging





JC whole body PET scan May 2014



PET scan August 2014

Complete response to therapy after 4 cycles

