

Multi-Institutional Hematopathology Interesting Case Conference

Chen Lossos

April 22, 2026

Disclosures

- Nothing to disclose

Patient Presentation

- 73-year-old male who initially presented with right forearm swelling for two weeks
- Ultrasound demonstrated right axillary lymphadenopathy
- R axillary lymph node FNA (outside hospital): 38% monotypic B-cell population on flow cytometry: CD5-, CD10-, CD200+, CD23-, FMC-7+, CD11c-, CD38+/- **Kappa** restricted population
- Subsequent lymph node biopsy (incisional)
 - At OSH: Focal atypical B-cell infiltrate arising in lymphadenopathy with features of hyaline-vascular Castleman disease
 - Reviewed at MSKCC: Lymph node with paracortical expansion and a focal extracapsular atypical B-lymphocytic proliferation.
 - No abnormal population identified on flow cytometry

Patient presentation

- PET CT Scan:
 - Clustered enlarged right axillary nodes with dominant node demonstrating heterogeneity, measuring 4.2 x 2.2 cm, SUV 5.7



Patient presentation

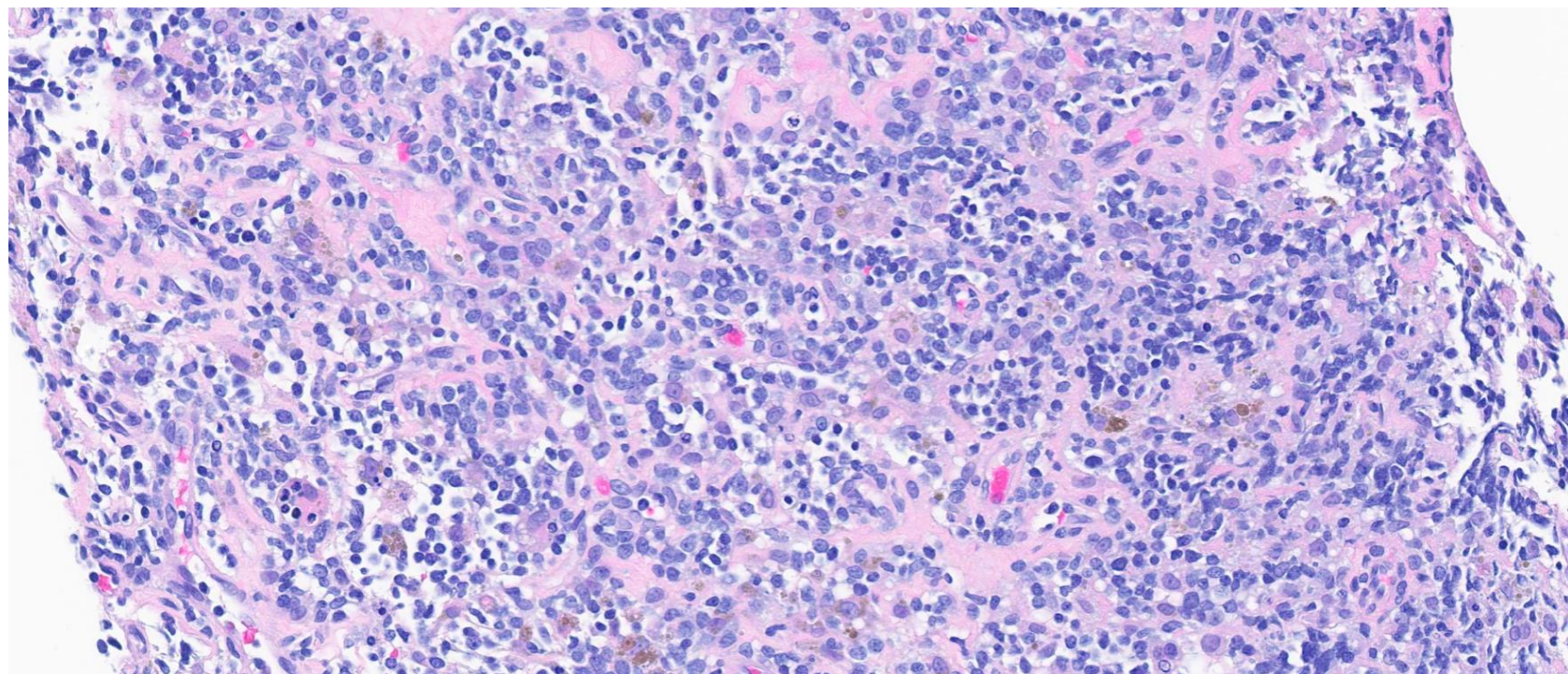
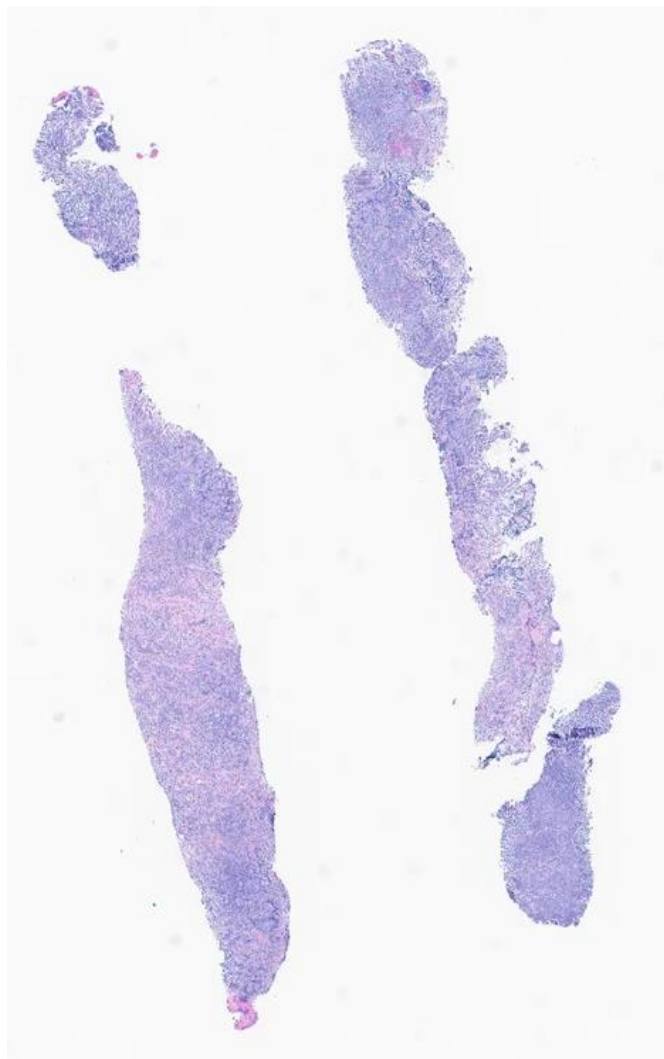
- Repeat R axillary lymph node biopsy at MSKCC (excision)
 - Lymph node with vascular transformation of sinuses, mild reactive paracortical hyperplasia, and changes consistent with a prior surgical site.
- Flow cytometry: A small abnormal B-cell population detected
 - Abnormal: CD5 (positive), CD22 (dim), surface **Lambda** (restriction)
- Abnormal B-cell population also observed in bone marrow flow cytometry
- Labs: slight elevation of serum light chain **kappa** (No M-spike but faint **lambda** on immunofixation)

Patient Presentation

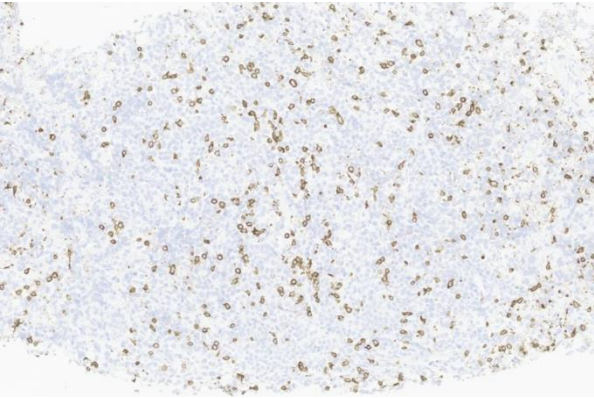
- In the interim: increased right arm swelling -> biopsy



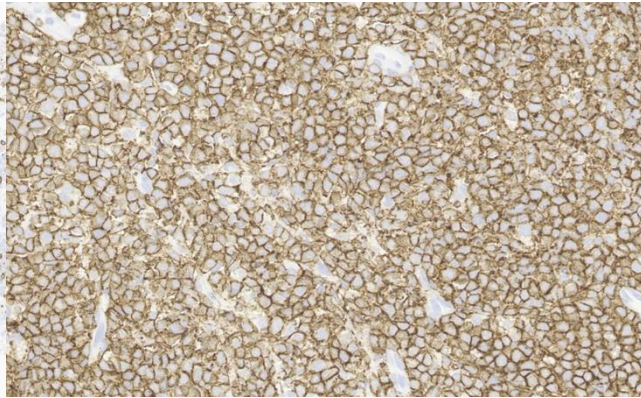
H&E



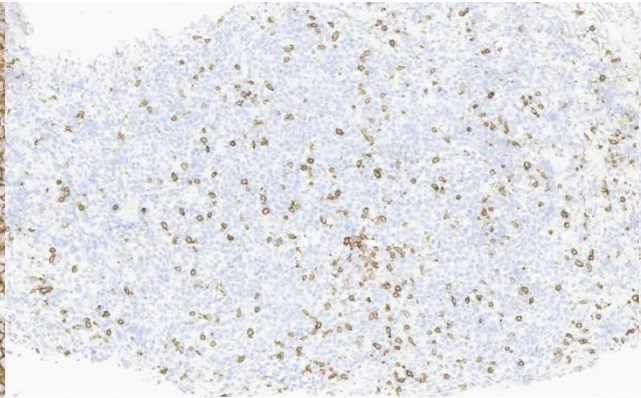
IHC



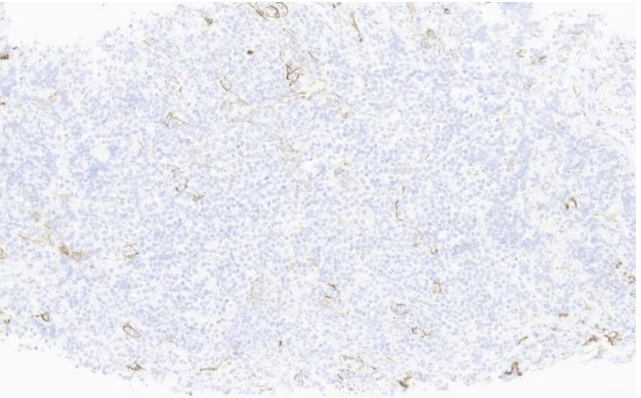
CD3



CD20



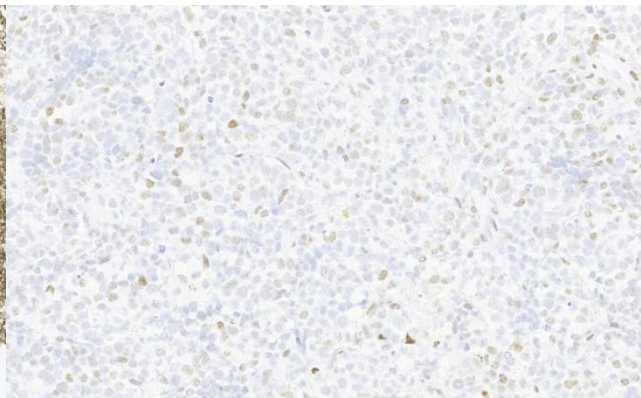
CD5



CD10



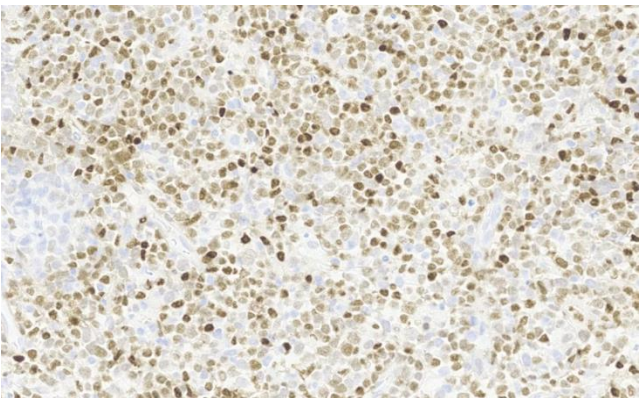
BCL2



BCL6

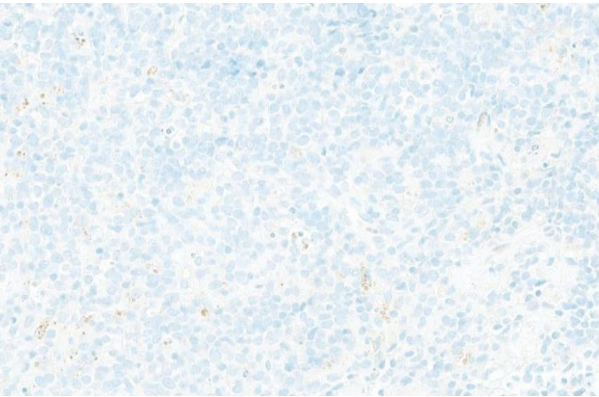


MUM1

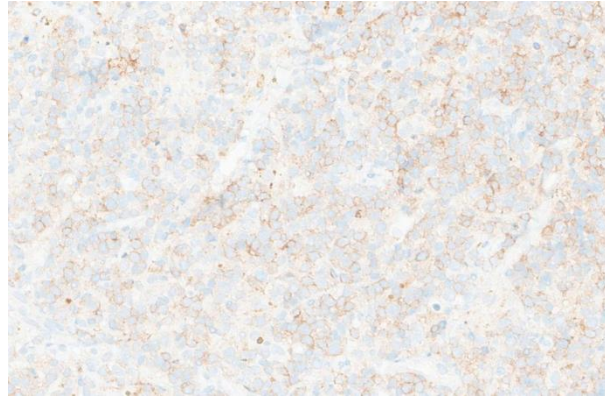


Cyclin D1

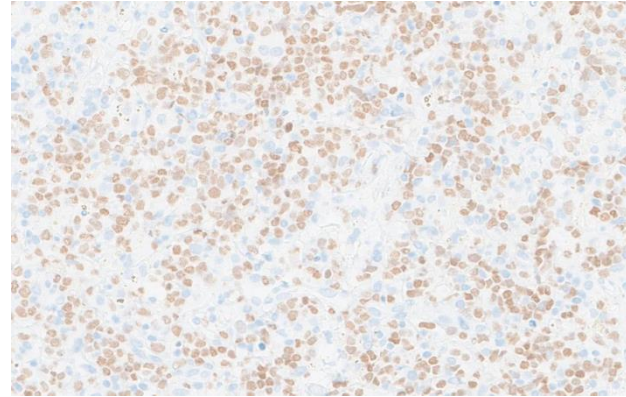
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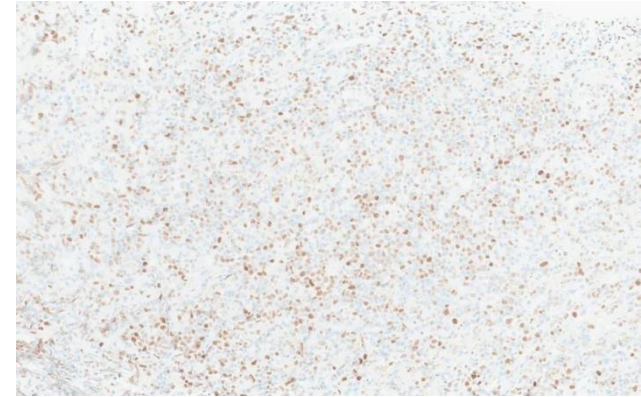
SOX11



HGAL



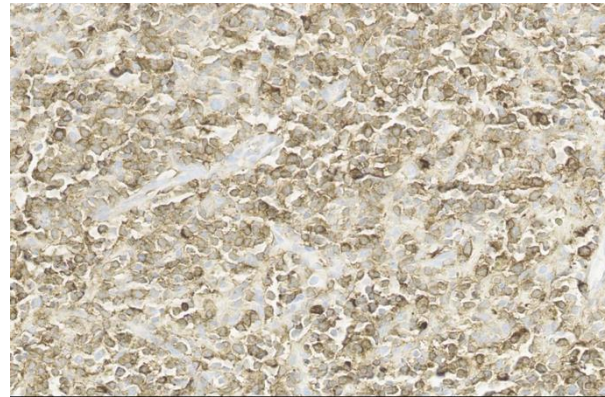
MEF2B



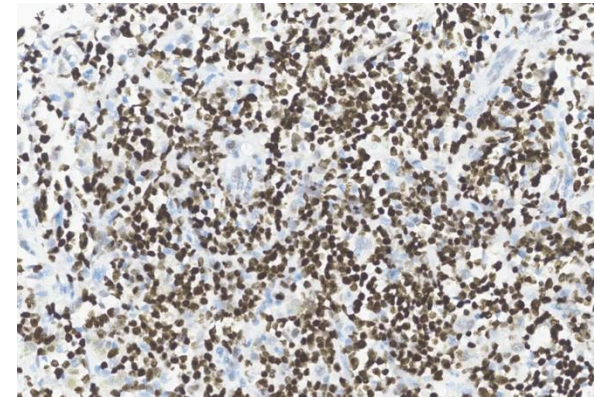
MYC



Ki67



IgM



FOXP1

Additional Data

- Flow cytometry: Abnormal B-cell population
 - Abnormal: CD20 (bright), CD22 (dim), CD25 (partial), CD45 (dim), surface **Kappa** (restriction)
- Cytogenetics: No evidence of MYC, BCL2, BCL6 or CCND1 rearrangements

Signed out

- Large B-cell lymphoma

Cyclin D1 in Systemic DLBCL

- Present but not vary common; from 1-2% of DLBCLs up to 15% in select studies
- Can be found in cases with CCND1 rearrangement and those without one
- Prognostic significance is not definitively known

Immunophenotype of Cyclin D1 Expressing DLBCLs, non-CCND1 rearranged

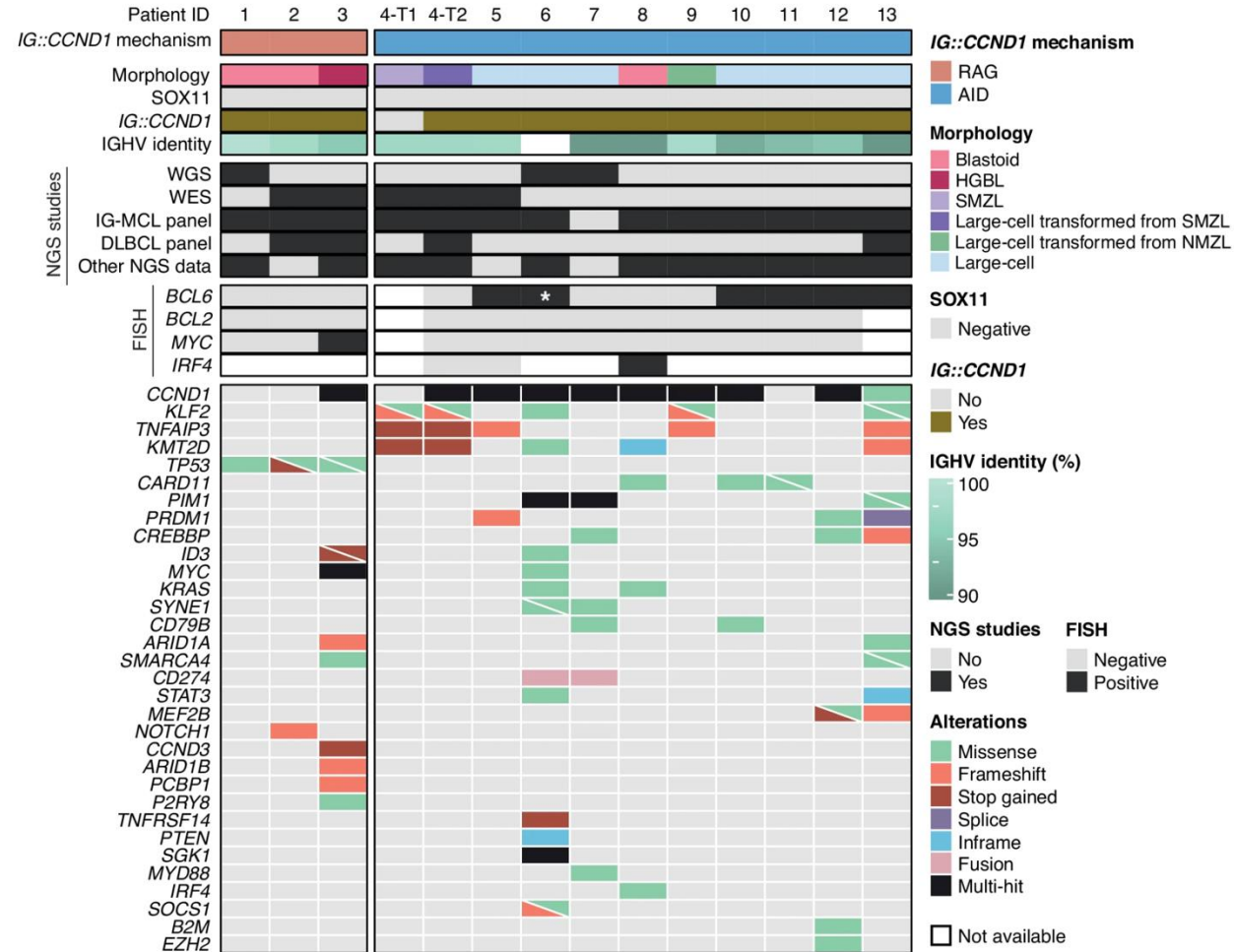
Case	Immunohistochemistry								Morphology
	CD20	CD5	MIB1 ⁺	BCL2	CD10	MUM1	BCL6	Cyclin D1 ⁺	
<i>De novo</i>									
1	+	-	50	+	-	+	+	20	IB
2	+	-	40	+	-	+/-	-	15	CB
3	+	-	45	-	-	+	+	15	CB
4	+	-	70	+	-	+	+	10	CB
5	+	-	80	+	-	+	+	20	CB
6	+	-	70	-	-	+	+	20	CB
7	+	-	70	-	-	-	+	20	CB
8	+	-	75	-	-	-	+	20	CB
9	+	-	40	+	-	+	+	20	CB
10	+	-	80	7	-	+	+	30	CB
11 [†]	+	-	60	+/-	-	-	+	30	CB
12 [†]	+	-	70	NA	-	+	-/+	20	CB
13 [†]	+	-	60	NA	-	+	+	20	T/HRLBCL
14 [†]	+	-	80	NA	-	+	+	10	CB
15 [†]	+	-	90	+	-	+	+	20	CB
16 [†]	+	Weak	50	+	-	+	-/+	20	CB
<i>RT</i>									
17	-	-	90	NA	-	+	+	80	CB
18 [†]	+	-	70	+	-	+	+	70	CB
19	+	-	70	+	-	+	+	20	CB

Immunophenotype of Cyclin D1 Expressing DLBCLs, CCND1 rearranged

Table 1. Clinical and pathological features of patients.

	Total (n = 13)	V(D)J- mediated (n = 3)	CSR/SHM- mediated (n = 10)
Demographics of patients			
Median age (years)	62.5 (45–86)	64 (59–84)	61 (45–86)
Male	10 (77%)	3 (100%)	7 (70%)
Localization			
Lymphadenopathy	6 (50%)	2 (67%)	7 (70%)
Tonsil	1 (8%)	1 (33%)	0
Testis	3 (25%)	0	3 (30%)
Gastrointestinal tract	3 (23%)	1 (33%)	2 (20%)
Bone marrow	3/9 (33%)	2 (67%)	1/6 (17%)
Peripheral blood	2/9 (22%)	2 (67%)	0/6
Morphology			
Blastoid	3 (23%)	2 (67%)	1 (10%)
Large cell	9 (69%)	0	9 (90%)
High-grade B-cell	1 (8%)	1 (33%)	0
FISH/cytogenetics			
MYC-R	1 (8%)	1 (33%)	0
BCL2-R	0	0	0
BCL6 -R	6 (46%)	0	6 (60%)
IRF4-R	1/3		1/3
Immunophenotype			
CD5	3/13 (23%)	2/3 (67%)	1/10 (10%)
CD10	3/13 (23%)	1/3 (33%)	2/10 (22%)
BCL6	7/13 (54%)	1/3 (33%)	6/10 (60%)
MUM1	9/13 (69%)	0/3	9/10 (90%)
BCL2	9/11 (82%)	1/2	8/9 (89%)
TDT	0/6 (14%)	0/2	0/4 (20%)
MYC	3/10 (30%)	2/3 (67%)	1/7 (14%)
TP53	4/7 (57%)	3/3 (100%)	1/4 (25%)
Follow-up			
Alive no evidence of disease	5/10 (50%)	0	5/7 (3–72 m)*
Died of disease	5/10 (50%)	3 (2–21 m)	2/7 (11–12 m)

Mutations of CCND1-rearranged DLBCL




Cyclin D1 Expression in Primary Cutaneous DLBCL

- One case report (2023)



Case Report

CD5+ Primary Cutaneous Diffuse Large B-Cell Lymphoma, Leg Type, Presenting as an Asymptomatic Nodule

Amy Xiao ¹, Colleen J. Beatty ², Sonal Choudhary ² and Oleg E. Akilov ^{2,*} 

Primary cutaneous DLBCL and Germinal Center Biology

- Gene expression studies have demonstrated that some DLBCL leg-type tumors are GCB
- GC-associated markers can be expressed in these tumors

Table 2 Clinical information, morphologic classification, and immunophenotypic characteristics of the 32 patients

<i>Patients</i>	<i>Morph. Dx.</i>	<i>Site</i>	<i>Age (years)</i>	<i>Sex</i>	<i>F/U month</i>	<i>Status</i>	<i>CD20</i>	<i>BCL2</i>	<i>BCL6</i>	<i>MUM-1</i>	<i>CD10</i>	<i>HGAL</i>	<i>GCB^a</i>
1	DLBCL-LT	Leg	92	F	54	Alive	3	Pos	Pos	Pos	Pos	NA	Y
2	DLBCL-LT	Scalp	90	F	85	Deceased	3	Pos	Neg	Pos	Neg	Neg	N
3	DLBCL-LT	Leg	80	F	18	Deceased	3	Pos	Neg	Pos	Neg	Pos	N
4	DLBCL-LT	Leg	41	F	26	Deceased	3	Pos	Neg	Neg	Pos	Pos	N
5	DLBCL-LT	Leg	74	F	34	Alive	3	Pos	Pos	Pos	Pos	Neg	N
6	DLBCL-LT	Leg	84	F	24	Alive	3	Pos	Neg	Neg	Neg	Neg	N
7	DLBCL-LT	Leg	89	F	6	Alive	3	Pos	Neg	Pos	Neg	Neg	N
8	DLBCL-LT	Leg	81	F	7	Deceased	2	Pos	Neg	Pos	Neg	Neg	N
9	DLBCL-LT	Leg	72	F	24	Alive	3	Pos	Pos	Pos	Neg	Neg	N
10	DLBCL-LT	Leg	83	F	36	Alive	3	Pos	Neg	Pos	Neg	Pos	N

Conclusions

- Cyclin D1 can be expressed in a subset of DLBCLs
- Role of Cyclin D1 in DLBCL pathogenesis is incompletely understood
- DLBCL leg-type tumors with Cyclin D1 expression are poorly characterized