

Supplemental Table 1. Detailed Immunohistochemical Findings of Consensus-Confirmed Cases of GZL (N=26).

Biopsy Site	CD20	CD79a	PAX5	OCT2	MUM1	CD30	CD15	CD3	EBER
Supraclavicular LN	4/+3	4/+3	4/+3	4/+3	4/+3	4/+3	3/+3	T-cells	Neg
Axillary LN	4/+3	4/+3	4/+3	2/+2	4/+3	1/+2	Neg	T-cells	Neg
Neck LN	4/+3	4/+2	4/+3	NA	NA	1/+2	Neg	T-cells	Neg
Mediastinum	4/+3	4/+2	4/+2	4/+1	4/+3	4/+1	Neg	T-cells	Neg
Mediastinum	4/+3	4/+2	4/+1	2/+3	4/+3	Neg	Neg	T-cells	Neg
Pancreas	4/+3	4/+2	4/+1	2/+2	2/+2	Neg	1/+1	T-cells	Neg
Mediastinum	4/+3	4/+2	4/+1	2/+1	4/+3	4/+2	4/+2	T-cells	Neg
Mediastinum	4/+3	4/+1	4/+3	NA	NA	4/+3	Neg	T-cells	Neg
Neck LN	4/+3	4/+1	4/+3	4/+2	4/+3	4/+2	2/+2	T-cells	Neg
Mediastinum	4/+3	4/+1	NA	NA	NA	4/+3	1/+1	T-cells	Neg
Mediastinum	4/+3	2/+1	4/+1	NA	4/+3	4/+3	2/+1	T-cells	Neg
LN	4/+3	1/+1	4/+2	4/+1	4/+3	4/+2	2/+3	T-cells	Neg
LN	4/+3	1/+1	2/+1	4/+2	4/+3	1/+1	Neg	T-cells	Neg
SubQ tissue	4/+3	NA	4/+3	NA	4/+3	4/+2	Neg	T-cells	Neg
LN & Mediastinum	4/+3	Neg	4/+2	4/+1	4/+3	4/+2	2/+2	T-cells	Neg
Mediastinum	4/+3	NA	4/+1	NA	4/+3	4/+3	4/+3	T-cells	Neg
Mediastinum	4/+3	Neg	NA	NA	NA	4/+1	4/+3	T-cells	Neg
Mediastinum	4/+2	4/+3	4/+2	NA	4/+3	2/+1	2/+1	T-cells	Neg
Mediastinum	4/+2	4/+2	4/+1	2/+2	4/+3	4/+2	1/+1	T-cells	Neg
Mediastinum	4/+2	4/+1	4/+1	4/+1	4/+3	4/+3	2/+1	T-cells	Neg
LN	4/+1	4/+1	4/+1	4/+3	4/+3	4/+3	Neg	T-cells	Pos
Iliac LN	1/+1	1/+2	1/+2	NA	4/+3	4/+3	Neg	T-cells	Neg
Mediastinum	Neg	Neg	4/+2	1/+2	4/+3	4/+3	1/+2	T-cells	Neg
Inguinal LN	Neg	Neg	4/+2	4/+1	4/+3	4/+3	Neg	T-cells	Neg
Neck & Mediastinum	Neg	Neg	4/+2	Neg	4/+3	4/+3	Neg	T-cells	Neg
Mediastinum	Neg	Neg	4/+1	4/+1	4/+3	4/+2	4/+2	T-cells	Neg

Abbreviations: No: case number; LN: Lymph node; GZL: gray zone lymphoma; SubQ: subcutaneous; NA: not available; Neg: negative; Pos: positive; EBER: Epstein Barr Virus in situ hybridization.

Supplemental Table 2. Consensus Diagnoses and Detailed Immunohistochemical Findings in *Reclassified* Cases (N=42).

Site	Revised Diagnosis	CD20	CD79a	PAX5	OCT2	MUM1	CD30	CD15	CD3	EBER
Axillary LN	cHL	4/+3	4/+3	4/+3	4/+3	NA	4/+3	Neg	T-cells	Neg
Mediastinum	cHL	1/+1	NA	Neg	NA	NA	4/+2	Neg	T-cells	Neg
Bone	cHL	4/+2	1/+1	1/+1	1/+1	4/+3	4/+1	Neg	T-cells	Pos
LN	cHL	4/+2	NA	NA	NA	4/+2	4/+2	NA	NA	Neg
Mediastinum	cHL	4/+3	NA	4/+1	NA	NA	Neg	Neg	T-cells	Pos
LN	cHL	4/+3	NA	4/+2	NA	NA	4/+2	Neg	T-cells	Pos
LN	cHL	Ritux.	1/+1	NA	NA	NA	4/+1	Partial	T-cells	Neg
Bone Marrow	cHL	4/+3	NA	4/+1	NA	NA	4/+1	Neg	T-cells	Neg
LN	cHL	4/+3	NA	Neg	NA	NA	1/+1	Neg	T-cells	Neg
Liver	cHL	Neg	4/+3	4/+1	NA	NA	4/+1	Neg	T-cells	Neg
LN	cHL	Neg	4/+1	4/+2	NA	NA	4/+3	2/+1	T-cells	Neg
Mediastinum	cHL NS	4/+2	4/+1	4/+2	4/+1	4/+3	Neg	Neg	T-cells	Neg
Mediastinum	cHL NS	Neg	Neg	4/+1	4/+1	4/+3	4/+2	Neg	T-cells	Neg
Chest wall	cHL NS	4/+3	4/+2	4/+3	4/+3	4/+3	4/+3	1/+1	T-cells	Pos
LN	cHL NS	4/+3	4/+2	4/+3	4/+3	4/+3	2/+3	2/+3	T-cells	Pos
Thymus	cHL NS	Neg	2/+2	4/+3	2/+2	4/+3	2/+2	4/+3	T-cells	Neg
Mediastinum	cHL NS	4/+3	2/+1	4/+1	NA	NA	4/+1	Neg	T-cells	Neg
Supraclavicular LN	cHL NS2	4/+3	4/+3	4/+3	4/+1	4/+2	4/+3	1/+1	Neg	Pos
R Neck LN	cHL NS2	4/+3	Neg	Neg	1/+1	4/+3	4/+3	4/+2	T-cells	Neg
Supraclavicular LN	cHL NS2	Neg	NA	4/+1	Neg	4/+3	4/+1	1/+1	T-cells	Neg
Anterior Mediastinum	cHL NS2	4/+3	NA	4/+3	NA	4/+3	4/+3	Neg	T-cells	Neg
NA	cHL NS2	Neg	NA	Neg	NA	NA	4/+2	Neg	NA	Neg
Mediastinum	cHL NS2	4/+2	4/+3	4/+2	4/+2	4/+3	4/+3	3/+2	T-cells	Neg
Mediastinum & Lung	cHL NS2	1/+1	1/+1	1/+1	1/+1	4/+3	4/+3	4/+2	T-cells	Neg
NA	cHL NS2	Neg	Neg	4/+2	Neg	4/+3	4/+2	Neg	T-cells	Neg

Lung	cHL NS2	4/+2	Neg	4/+2	1/+1	4/+3	4/+2	1/+1	T-cells	Neg
Lung	cHL NS2	1/+1	Neg	1/+1	3/+3	4/+3	2/+1	2/+1	T-cells	Neg
Cervical LN	cHL LR	1/+1	Neg	1/+1	1/+1	4/+2	1/+1	Neg	NA	Pos
LN	NLPHL	4/+2	NA	NA	NA	Neg	4/+1	NA	NA	Neg
Lung	NLPHL	4/+3	1/+2	4/+2	4/+3	4/+3	4/+1	Neg	T-cells	Pos
Subcarinal LN	NLPHL	4/+3	4/+2	4/+2	4/+2	4/+2	Neg	Neg	T-cells	Neg
Spleen	NLPHL	4/+3	NA	4/+1	NA	NA	2/+1	Neg	T-cells	Neg
Mediastinum	PMBCL	4/+3	4/+3	4/+3	4/+3	4/+3	2/+2	Neg	T-cells	Neg
Mediastinum	PMBCL	4/+3	NA	4/+1	NA	4/+3	4/+3	Neg	T-cells	Neg
Supraclavicular LN	DLBCL	4/+3	NA	4/+3	4/+2	1/+1	Neg	Neg	T-cells	Neg
L Cervical LN	DLBCL	4/+3	NA	4/+3	4/+2	4/+2	2/+1	Neg	T-cells	Neg
Supraclavicular LN	DLBCL	4/+3	4/+3	4/+3	2/+3	1/+3	Neg	Neg	T-cells	Neg
GE Junction	DLBCL	4/+1	4/+3	4/+1	4/+1	4/+3	4/+3	Neg	NA	Neg
LN	DLBCL	2/+3	4/+3	4/+3	Neg	4/+3	4/+3	Neg	T-cells	Neg
Paravertebral Soft Tissue	EBV DLBCL	4/+3	Neg	Neg	4/+3	4/+3	4/+2	Neg	T-cells	Pos
Peri-aortic LN	EBV DLBCL	4/+3	4/+2	4/+2	4/+1	4/+3	2/+2	Neg	T-cells	Pos
LN	EBV DLBCL	4/+3	NA	4/+1	NA	NA	4/+3	Neg	T-cells	Pos

Abbreviations: No: case number; L: Left; R: Right; LN: Lymph node; NA: not available; M: male; F: female; Neg, Negative; cHL: Classic Hodgkin lymphoma; cHL NS: Classic Hodgkin lymphoma nodular sclerosis; cHL NS2: Classic Hodgkin lymphoma nodular sclerosis type 2; DLBCL: Diffuse large B cell lymphoma; EBV: Epstein Barr Virus; EBV DLBCL: EBV positive diffuse large B cell lymphoma; NLPHL: Nodular lymphocyte predominant Hodgkin lymphoma; PMBL: Primary mediastinal large B cell lymphoma; Ritux: Negative staining with status post rituximab.

Supplemental Table 3. Baseline Characteristics: Re-Classified Cases.

Patient characteristics		N (%)	Disease characteristics		N (%)
Median age		37 years (range, 19-72)		Mediastinal involvement/disease 15 (41)	
Gender			Bone marrow involvement		
Male		27 (75)	Absent		31 (86)
Female		9 (25)	Present		4 (11)
			NA		1 (3)
Performance status			Extranodal sites present		
0-1		30 (83)	<=1		27 (75)
2-4		5 (14)	>1		9 (25)
NA		1 (3)			
B symptoms			Stage		
Yes		18 (50)	I/II		16 (44)
No		15 (42)	III/IV		20 (56)
NA		3 (8)			
Albumin			Bulky disease		
Normal		12 (33)	Yes		11 (30)
Low		21 (58)	No		24 (67)
NA		3 (9)	NA		1 (3)
Hemoglobin, g/dL			IPI		
Decreased		24 (67)	0-2		24 (67)
Normal		11 (30)	3-5		11 (30)
NA		1 (3)	NA		1 (3)
LDH			IPS		
Normal		14 (39)	0-1		4 (11)
Elevated		22 (61)	2-3		16 (45)
			4-6		9 (25)
			NA		7 (19)

Abbreviations: N, number; LDH, lactate dehydrogenase; NA, not available; IPI, International Prognostic Index; IPS, International Prognostic Score.