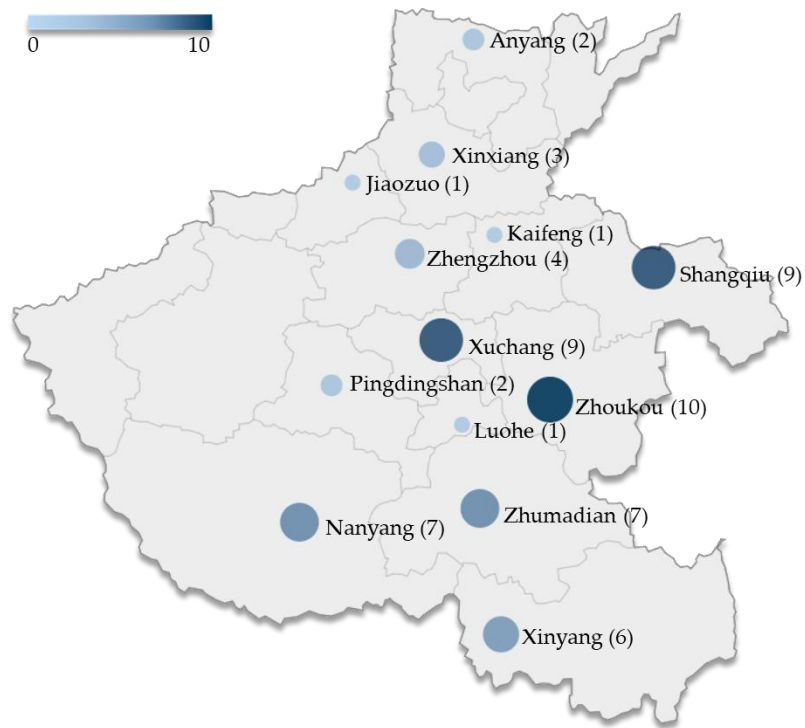


Supplementary Information

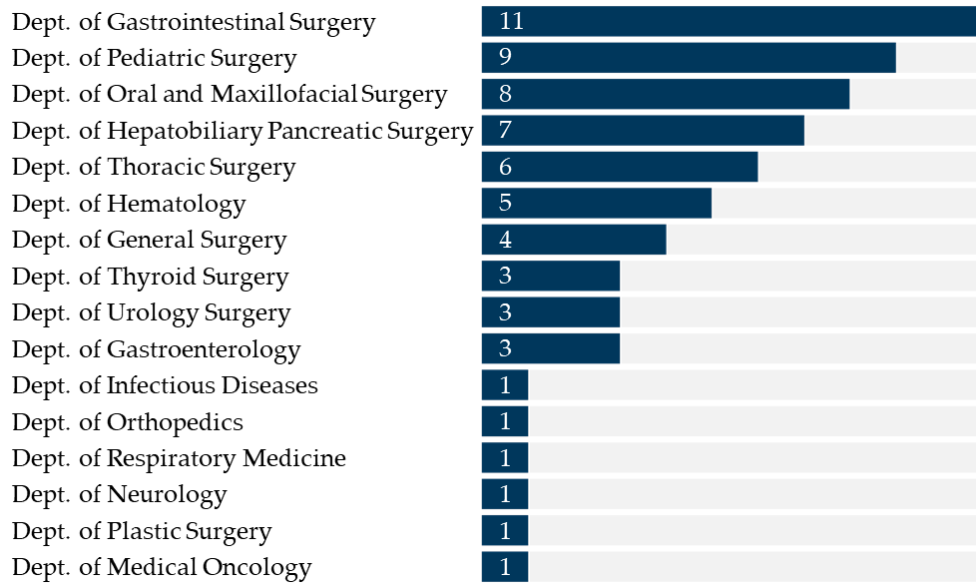
Comprehensive analysis of 65 patients with Castleman disease in a single center in China

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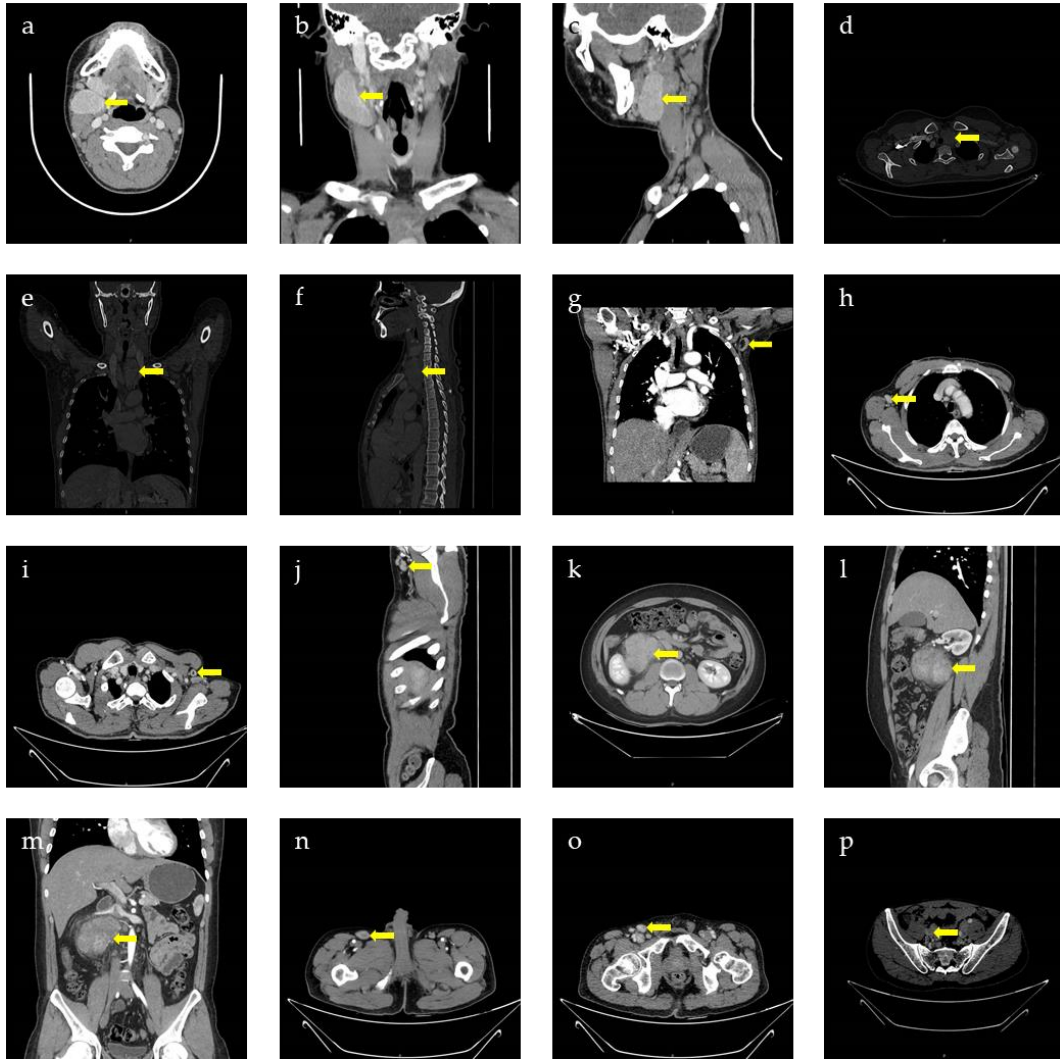
Li-Wei Peng^{1,*}, Bing Liu^{2,4,*} and Lin-Lin Bu^{2,4,*}



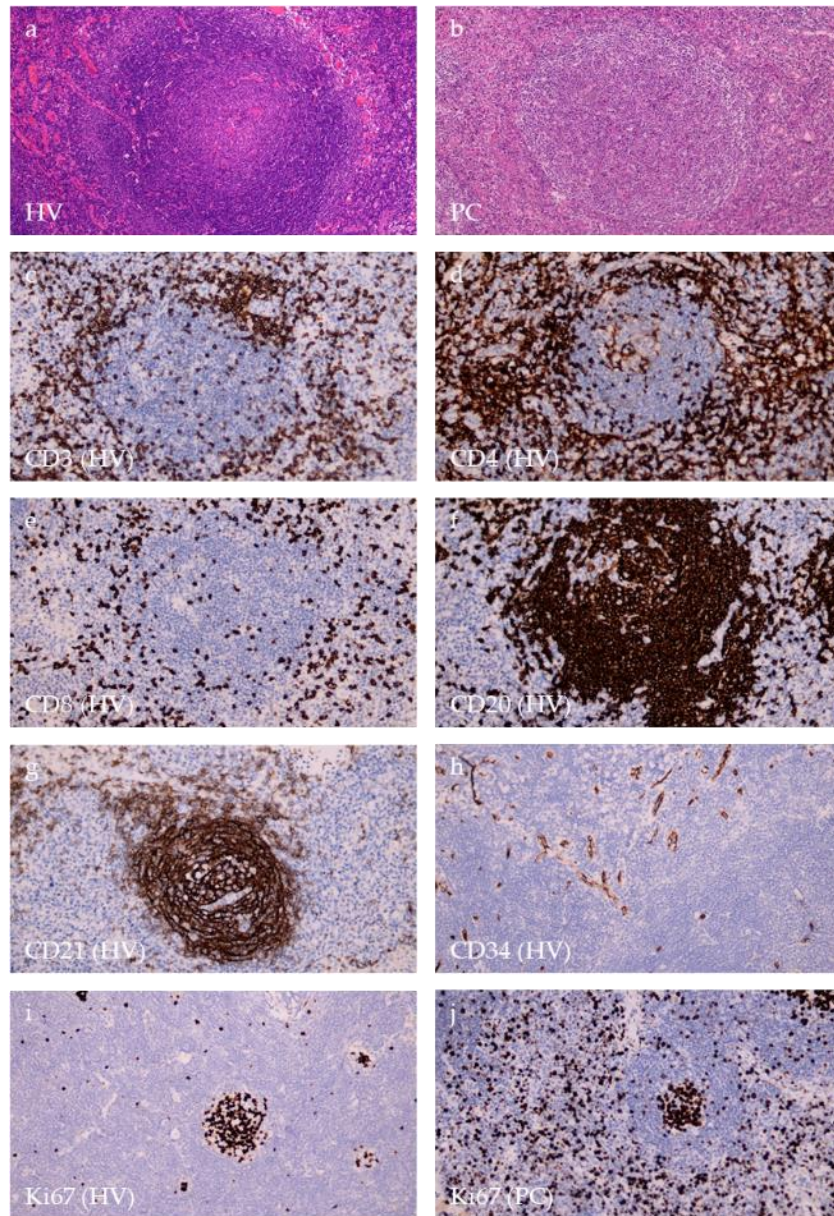
Supplementary Figure S1. Birthplaces of patients. 62 patients with CD from Henan Province in central China were distributed in 13 cities.



Supplementary Figure S2. Admission departments. Data of 65 patients with CD were collected from 16 departments in the hospital. Distribution of their source departments revealed the most frequent initial admission departments.



Supplementary Figure S3. Radiological examinations. CT images on different planes showed the enlarged lymph nodes in neck (a-c), mediastinum (d-f), axilla (g-j), abdomen (k-m), groin (n-o) and pelvis (p) of 6 patients with CD, among which patients with lymphadenopathies in neck/mediastinum/abdomen were with UCD/HV subtype and the other three were with MCD/PC subtype.



Supplementary Figure S4. HE and IHC staining. a. HE staining of an HV variant ($\times 100$); b. HE staining of a PC variant ($\times 100$); c. CD3-IHC staining of an HV variant ($\times 200$); d. CD4-IHC staining of an HV variant ($\times 200$); e. CD8-IHC staining of an HV variant ($\times 200$); f. CD20-IHC staining of an HV variant ($\times 200$); g. CD21-IHC staining of an HV variant ($\times 100$); h. CD34-IHC staining of an HV variant ($\times 100$); i. Ki67-IHC staining of an HV variant ($\times 100$); j. Ki67-IHC staining of a PC variant ($\times 100$).

Index	Count	Index	Count	Index	Count	Index	Count
Ki67	65	HHV-8	15	Factor-8	4	CK8	1
CD20	63	IgG	14	AFB	4	c-Myc	1
CD3	62	IgG4	14	TB-DNA	4	F XIII A	1
CD21	54	CD79a	13	CD99	3	Granzyme B	1
Pax-5	49	CD35	12	CXCL-13	3	Hepatocyte	1
CD23	42	CD4	11	Desmin	3	MLH1	1
CD10	41	CD163	11	LCA	3	MSH2	1
EBER	41	CK (AE1/AE3)	11	P63	3	MSH6	1
CD138	37	CD68	9	ALK	2	Mucin-1	1
Bcl-2	37	CD15	8	CD7	2	Oct-2	1
CD38	35	EMA	8	CD117	2	P53	1
CD5	34	CD1a	7	CK20	2	PD-1	1
Mum-1	34	CD8	7	SMA	2	PD-L1 (22C3)	1
CD43	30	CD123	7	TIA-1	2	PMS2	1
Bcl-6	27	TdT	7	IgM	2	Villin	1
Kappa	27	S-100	6	Arginase-1	1	HBcAg	1
Lambda	27	CD31	5	Bob-1	1	HBsAg	1
CD34	22	CD56	5	CgA	1	IGH/IGK gene rearrangement	1
Cyclin-D1	19	CK	4	CK/D2-40	1	PAS	1
CD2	16	CK19	4	CK5/6	1	TCR seq	1
CD30	16	EBNA2	4	CK7	1		

Supplementary Figure S5. Choices of pathological index for CD. 83 pathological indexes (including IHC and molecular pathology) were listed in order of the number of times they were tested in 65 patients with CD in this study.

Supplementary Table S1 Epidemiologic characteristics of patients with UCD and MCD

	UCD	MCD	Total no. of patients with available data
Sex, n (%)	33 (50.8%)	32 (49.2%)	65
Male	13 (39.4%)	21 (65.6%)	34 (52.3%)
Female	20 (60.6%)	11 (34.4%)	31 (47.7%)
Pathological subtype, n (%)	33 (50.8%)	32 (49.2%)	65
HV	27 (81.8%)	12 (37.5%)	39 (60.0%)
PC	3 (9.1%)	19 (59.4%)	22 (33.8%)
Mixed	3 (9.1%)	1 (3.1%)	4 (6.2%)
Age at disease onset (years), mean \pm SD (min-max), n (%)	36.1 \pm 18.0 (2-73), 32 (50.0%)	40.9 \pm 19.9 (3-71), 32 (50.0%)	38.5 \pm 18.9 (2-73), 64
HV	34.8 \pm 17.7 (2-73), 26 (81.3%)	35.8 \pm 20.9 (5-66), 12 (37.5%)	35.1 \pm 18.5 (2-73), 38 (59.4%)
PC	54.7 \pm 5.5 (51-61), 3 (9.4%)	44.0 \pm 19.6 (3-71), 19 (59.4%)	45.5 \pm 18.6 (3-71), 22 (34.4%)
Mixed	28.7 \pm 21.2 (6-48), 3 (9.4%)	43, 1 (3.1%)	32.3 \pm 18.7 (6-48), 4 (6.3%)
Diagnosis delay (months), median, n (%)	1.25, 32 (50.0%)	3.00, 32 (50.0%)	2.50, 64
HV	0.79, 26 (81.3%)	3.50, 12 (37.5%)	2.00, 38 (59.4%)
PC	1.50, 3 (9.4%)	2.50, 19 (59.4%)	2.50, 22 (34.4%)
Mixed	3.00, 3 (9.4%)	0.46, 1 (3.1%)	2.00, 4 (6.3%)

Supplementary Table S2 Clinical findings of patients with UCD and MCD

	UCD	MCD	Total no. of patients with available data
Location of lymphadenopathy, n (%)	33 (50.8%)	32 (49.2%)	65
Neck	10 (30.3%)	21 (65.6%)	31 (47.7%)
Abdomen	13 (39.4%)	6 (18.8%)	19 (29.2%)
Axilla	0	8 (25.0%)	8 (12.3%)
Groin	1 (3.0%)	7 (21.9%)	8 (12.3%)
Mediastinum	4 (12.1%)	3 (9.4%)	7 (10.8%)
Pelvis	3 (9.1%)	2 (6.3%)	5 (7.7%)
Parotid gland	1 (3.0%)	1 (3.1%)	2 (3.1%)
Lung	1 (3.0%)	0	1 (1.5%)
Elbow	1 (3.0%)	0	1 (1.5%)
Signs and symptoms, n (%)	33 (50.8%)	32 (49.2%)	65
Fever	0	10 (31.3%)	10 (15.4%)
Cough	0	2 (6.3%)	2 (3.1%)
Marasmus	0	1 (3.1%)	1 (1.5%)
Comorbidities, n (%)	9 (27.3%) of 33	10 (31.3%) of 32	19 (29.2%) of 65
Liver	5 (15.2%)	3 (9.4%)	8 (12.3%)
Splenomegaly	2 (6.1%)	4 (12.5%)	6 (9.2%)
Oedema/effusion	1 (3.0%)	3 (9.4%)	4 (6.2%)
Kidney	1 (3.0%)	3 (9.4%)	4 (6.2%)
Lung	2 (6.1%)	1 (3.1%)	3 (4.6%)
Thyroid	2 (6.1%)	1 (3.1%)	3 (4.6%)
Gallbladder	0	1 (3.1%)	1 (1.5%)
Stomach	1 (3.0%)	0	1 (1.5%)
Ovary	1 (3.0%)	0	1 (1.5%)
Femur	1 (3.0%)	0	1 (1.5%)
Paroxysmal disturbance of consciousness	0	1 (3.1%)	1 (1.5%)

Supplementary Table S3 Pathological findings of patients with UCD and MCD

	UCD	MCD	Total no. of patients with available data
HHV-8, n (%)	8	7	15
Positive	0	1 (14.3%)	1 (6.7%)
Negative	8 (100%)	6 (85.7%)	14 (93.3%)
Major diameter of pathological specimen (cm), mean \pm SD (min-max), n (%)	6.4 \pm 2.2 (2.5-12), 33 (50.8%)	3.1 \pm 1.9 (0.6-8.0), 32 (49.2%)	4.7 \pm 2.6 (0.6-12.0), 65
HV	6.5 \pm 2.2 (3.0-12.0), 27 (81.8%)	3.5 \pm 1.9 (1.0-6.6), 12 (37.5%)	5.6 \pm 2.5 (1.0-12.0), 39 (60.0%)
PC	7.3 \pm 1.5 (6.0-9.0), 3 (9.1%)	2.9 \pm 2.0 (0.6-8.0), 19 (59.4%)	3.5 \pm 2.5 (0.6-9.0), 22 (33.8%)
Mixed	4.3 \pm 1.8 (2.5-6.0), 3 (9.1%)	1.2, 1 (3.1%)	3.6 \pm 2.1 (1.2-6.0), 4 (6.2%)

Supplementary Table S4 Chemotherapy regimens and follow-up

	Patient no.	Chemotherapy regimens	Follow-up time (months)	Follow-up results
UCD	1	lansoprazole + vidarabine monophosphate + lienal polypeptide	80	alive, NR
	2	no detail	90	loss of follow up
MCD	3	CHOP	32	alive, NR
	4	CHOP	23	died, PD
	5	CHOP	105	alive, NR
	6	CHOP	13	alive, NR
	7	CHOP	101	alive, NR
	8	CHOP	88	loss of follow up
	9	CHOP	84	died, PD
	10	CHOP + CHOPE	98	alive, NR
	11	CHOP + IFN- α + thalidomide	101	alive, NR
	12	VD + VAD + CHOP + CHOPE	105	alive, NR
	13	TCP	18	loss of follow up
	14	pirarubicin (THP) + prednisone + vincristine sulfate (Oncovin) + tropisetron	81	alive, NR
	15	rituximab + methylprednisolone	16	alive, NR
	16	rituximab	35	alive, NR
	17	no detail	27	alive, NR
	18	no detail	66	alive, NR

CHOP: cyclophosphamide + doxorubicin hydrochloride (hydroxydaunorubicin) + vincristine sulfate (Oncovin) + prednisone; CHOPE: CHOP + etoposide phosphate; VD: bortezomib (Velcade) + dexamethasone; VAD: vincristine + doxorubicin (Adriamycin) + dexamethasone; TCP: thalidomide + cyclophosphamide + prednisolone; NR: no recurrence; PD: progressive disease