

Histopathology

Table S2. Summary list of histopathological changes and immunohistochemistry results

Organ	Microscopic finding	Annotations	No.																
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
District			LOS	MOL	MOL	MOL	MOL	MOL	SN	SN	SN	SN							
Virus variant			II	III	III	III	III	III	IV	IV	IV	IV							
Lymph node (popliteal)	Lymphoid depletion		Red																
	Congestion/hemorrhage		Red	Green	Red	Red	Red	Green	Red										
	Necrosis	Paracortex	Red																
		Medullary chords	Red																
	Vascular thrombosis		Red	Red	Green	Red	Red	Red	Green	Red	Green	Green	Green	Green	Green	Red	Red	Green	
	Viral antigen		3	3	2	3	2	3	3	2	3	3	3	3	3	2	1	2	
Spleen	Lymphoid depletion		Red																
	Necrosis red pulp		Red	A	A	A	A	A	A	A	A	A	Red	A	A	A	Red	Red	
	Congestion/hemorrhage		Red	A	Red	Red	A	Red	A	Red	Red								
	Viral antigen		3	2	1	2	0	3	2	1	3	2	2	2	2	3	1	2	
Lung (cranial lobe)	Alveolar edema		Red	Red	A	Red	Red	Red	Red	Red	Red	Green	Red	Red	Red	Red	Green	Red	
	Hemorrhage		Red	Red	A	Red	Green	Red	Red	Red	Red	A							
	Bronchopneumonia	Fibrino-suppurative, necrotizing	Red	Green	A	Green	Red	Green	Green	Red	Green	A							
	(broncho)-interstitial pneumonia	fibrino-necrotizing	Green	Red	A	Red	Green	Red	Red	Green	Red	A							
	Viral antigen		3	2	2	2	1	3	2	2	3	3	2	3	3	1	1	3	
Kidney	Nephritis	Tubulointerstitial, mononuclear cells	Green	Red	N/A	Red	A	A	Red	A	Red	A							
	Hemorrhage	Cortical	Red	Red	N/A	Red	A	A	Red	A	Red	A							

		Medullary	Red	Red	N/A	Red	A	A	Red	A	Red	A						
		Pelvic	Red	Green	N/A	Red	A	A	Red	A	Red	A						
	Vascular thrombosis		Red	Green	N/A	Red	Red	Red	Red	Green	Green	Green	A	A	Red	A	Red	A
	Viral antigen		2	2	N/A	3	0	3	2	1	2	3	1	1	2	2	1	2
Liver	Kupffer cell apoptosis/necrosis		Red	A	A	A	Red	A	A	A	A	A	A	N/A	Red	A	Red	Red
	Hepatocyte apoptosis/necrosis		Red	A	A	A	Red	A	A	A	A	A	A	N/A	Red	A	Green	Red
	Sinusoidal infiltrates	Neutrophils	Green	A	A	A	Red	A	A	A	A	A	A	N/A	Red	A	Red	Red
		Mononuclear cells	Green	A	A	A	Red	A	A	A	A	A	A	N/A	Red	Red	Red	Red
	Periportal infiltrates	Mononuclear cells	Red	A	A	A	Red	A	A	A	A	A	A	N/A	Red	A	Red	Red
		Eosinophils	Red	A	A	A	Red	A	A	A	A	A	A	N/A	Red	A	Red	Red
Viral antigen		2	2	2	2	1	3	2	1	2	3	2	N/A	1	1	1	2	
Heart	Hemorrhages	Endocardial	Green	N/A	Green	N/A	Red	N/A	Red	Green	N/A	Green	A	N/A	N/A	N/A	N/A	Green
		Myocardial	Red	Green	Red	Red	Red	Green	Red	Green	Red	Green	A	N/A	Green	Green	Red	Green
		Epicardial	Green	N/A	N/A	Red	N/A	Red	Green	Green	Green	N/A	A	N/A	Green	Green	Red	Green
	Endocardial infiltration	Mononuclear cells	Green	N/A	N/A	Green	Red	N/A	Red	Green	N/A	Red	A	N/A	N/A	N/A	N/A	Green
Viral antigen		2	0	2	2	0	1	1	0	2	1	1	N/A	2	1	1	2	
Cerebellum	Meningitis		Green	Red	Green	Red	Green	Red	Green	Red	Red	Red	Red	Red	Green	Green	Red	Green
	Encephalitis		Green	Red	Red	Red	Green	Green	Green	Red	Red	Red	Red	Green	Red	Red	Red	Green
	Hemorrhage		Green	Red	Green													
	Viral antigen		1	3	1	2	0	1	1	0	3	3	1	1	0	0	0	1
Cerebrum	Meningitis	Mononuclear cells	Green	Red	Red	Red	Green	Red	Red	Green	Red	Red	Red	Red	Green	Red	Green	Green
	Encephalitis	Mononuclear cells	Green	Red	Green	Red	Green	Green	Green	Red	Red	Green	Red	Green	Green	Green	Green	Green
	Choroiditis	Mononuclear cells	Green	Green	Green	Red	Red	Red	Red	Green	Red							
	Hemorrhage		Green	Red	Red	Green	Green	Green	Green	Red	Green							
	Viral antigen		1	3	1	2	0	3	2	1	2	3	3	1	1	1	1	1

Adrenal gland	Hemorrhage	Cortical	present	A	N/A	not present	present	A	A	A	not present	A	A	A	present	A	not present	A	
		Medullary	present	A	N/A	not present	present	A	A	A	present	A	A	A	present	A	not present	A	
	Sinusoidal thrombosis		present	A	N/A	not present	present	A	A	A	present	A	A	A	present	A	not present	A	
	Necrosis	Cortical	present	A	N/A	not present	present	A	A	A	not present	A	A	A	A	A	A	not present	A
		Medullary	not present	A	N/A	not present	present	A	A	A	not present	A	A	A	present	A	not present	A	
	Adrenalitis	Mononuclear cells mixed with neutrophils	present	A	N/A	present	present	A	A	A	present	A	A	A	present	A	present	present	A
Viral antigen		2	2	N/A	2	1	3	2	2	3	2	2	2	2	2	2	2	2	

Histopathological changes are indicated as **present** or **not present**, A = autolysis, evaluation not possible or N/A = not available. The viral antigen amount was determined on a semiquantitative scale: (+) = ≤ 3 positive cells; (++) = 4-15 positive cells; (+++) = ≥ 16 positive cells.