

Additional file 1. Pathological observation description and scoring explanation of lung tissue slice

No.	Pathology	Description	Score ¹
1	Bronchi filled with pus	Bronchial stenosis or even obstruction at all levels, filled with mucus, mixed with lymphocytes, monocytes, neutrophils and their cell fragments, with homogeneous red stained serous.	1-5
2	Parabronchial lymphofollicular hyperplasia	Hyperplasia of parabronchial lymphoid follicles, invasion and compression of alveolar tissue.	1-5
3	Widening of alveolar septa	Fibrous connective tissue proliferation and widening in the lung interstitium, extensive widening of alveolar septa (lymphocyte proliferation), compensatory expansion of alveoli.	1-5
4	Pulmonary tissue collapse	Pulmonary tissue consolidation is mainly characterized by alveolar collapse. Abscesses are often seen in the collapsed tissue area, with infiltration of neutrophils, monocytes, and lymphocytes. The remaining alveoli undergo compensatory dilation.	1-5
5	Lymphocyte infiltration	Diffuse infiltration of lymphocytes in the pleura of the lungs, as well as infiltration of lymphocytes around the bronchi and blood vessels.	1-5
6	Vascular congestion and bleeding	The alveoli are filled with blood, with dilated arteries, veins, and alveolar wall capillaries, congestion/congestion, and multifocal bleeding.	1-5
7	Edema	Pulmonary interstitial edema, pulmonary pleural edema, bronchial submucosal edema.	1-5

¹The severity score of the lesion is as follows: +1 (minor lesions), +2 (mild lesions), +3 (moderate lesions), +4 (severe lesions), +5 (extremely severe lesions).