



## Supplementary Material

# Epidemiological Study and Clinical Characterization of COVID-19 Cases in Xuzhou, China

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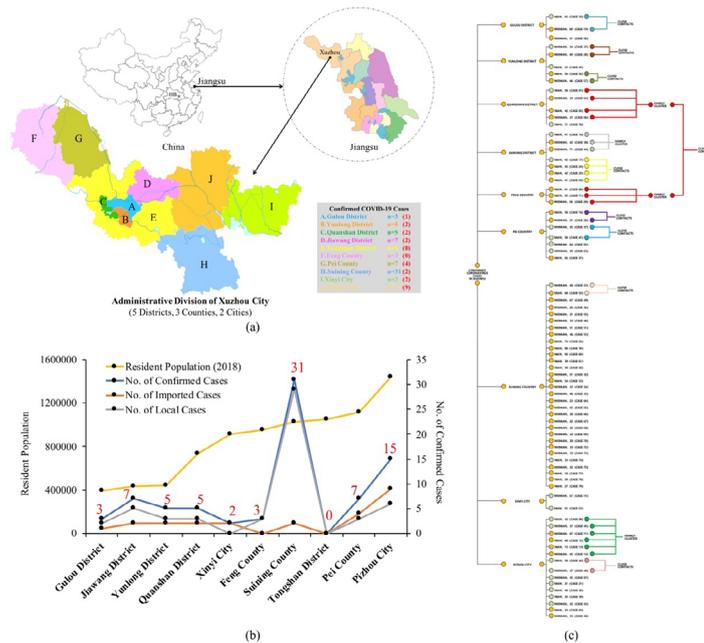
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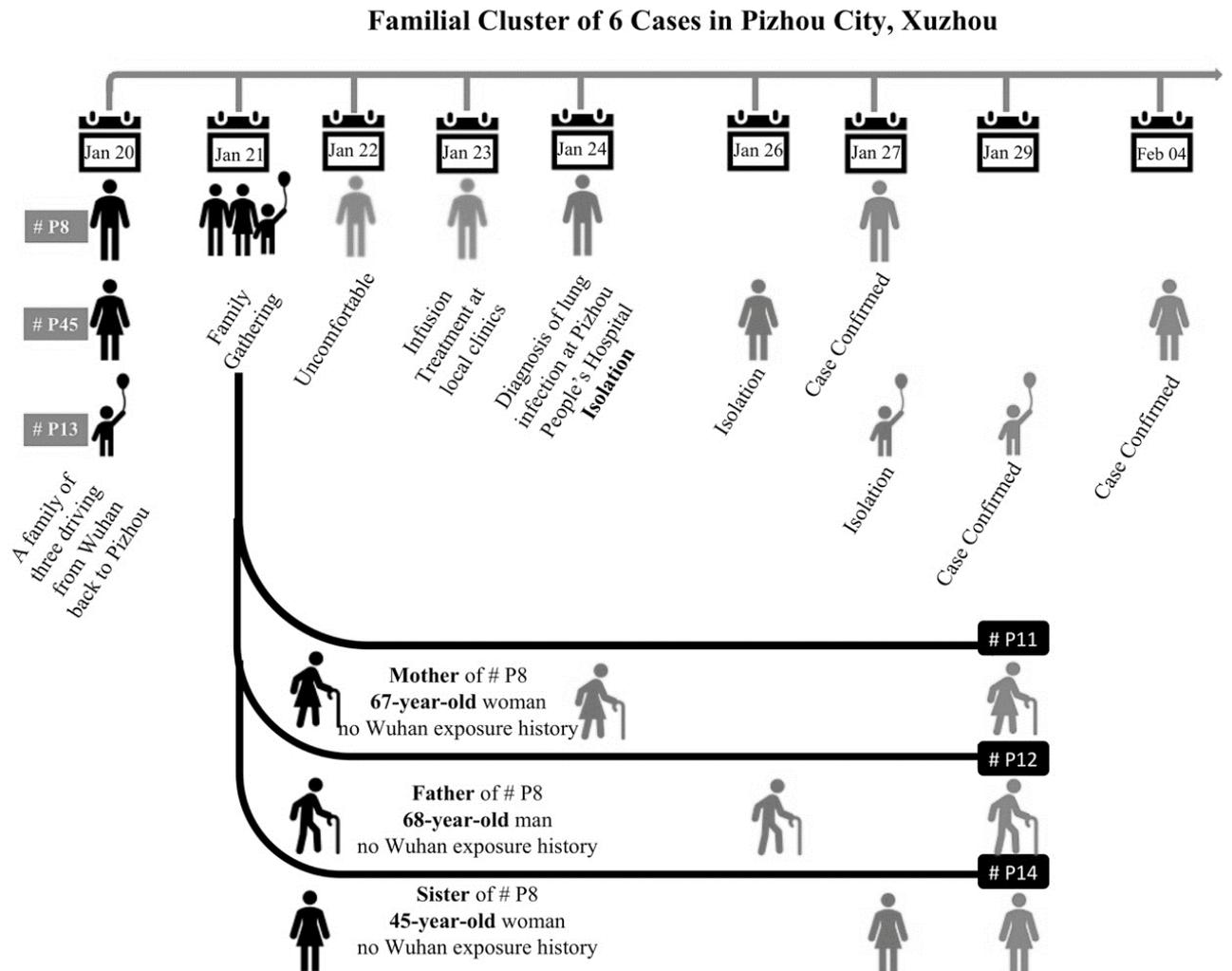
Zhan-Zhong Liu and Chun-Ying Wang contributed equally to this study.



Supplementary Fig. S1. Schematic illustration of geographic distribution, case composition, and clusters of all COVID-19 cases in Xuzhou, China. (a) These cases were unevenly distributed in 10 administrative divisions. The top three divisions are Suining County (n=31), Pizhou City (n=15), and Jiawang District (n=7) while the bottom two divisions are Tongshan District (n=0) and Xinyi City (n=2). Red numbers in parenthesis indicate the number of imported cases. (b) Composition of imported and locally transmitted cases in terms of resident population in each administrative division. (c) 11 known clusters and the corresponding connections among COVID-19 cases in Xuzhou. All imported cases are in light green dots with an uppercase letter I. HB: Hubei province. Star symbol: Wuhan city.

Note: Only 78 of them were included in the study for geographical epidemiological analysis because one patient was actually a train passenger and did not belong to any administrative division of Xuzhou City.

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Supplementary Fig. S2. Illustration of the contact history in a representative familial cluster with 6 cases at Pizhou City in Xuzhou. Normal state: black body icon. Initial symptom: yellow body icon. Isolation: brown body icon. Confirmation: red body icon.

**Supplementary Table SI. Demographics, baseline and clinical characteristics of 41 COVID19 patients.**

Variables	Patients (n = 41)
<b>Age</b>	
Mean (SD)	42.16 ± 15.08
<b>Range</b>	
<18	1 (2.44%)
1824	6 (14.63%)
2549	21 (51.22%)
5064	8 (19.51%)
>=65	5 (12.2%)
<b>Sex</b>	
Female	24 (58.54%)
Male	17 (41.46%)
<b>Clinical classification</b>	
Mild type	1 (2.44%)
Moderate type	35 (85.36%)
Severe Type	4 (9.76%)
Critically ill type	1 (2.44%)
<b>Comorbidities</b>	
Diabetes	3 (7.32%)
Hypertension	7 (17.07%)
Coronary heart disease	2 (4.88%)
Cerebrovascular disease	3 (7.32%)
Hyperthyroidism	1 (2.44%)
<b>Signs and symptoms at admission</b>	
Cough	29 (70.73%)
Fever	29 (70.73%)
Throat congestion	29 (70.73%)
Chest tightness	21 (51.22%)
Sputum	19 (46.34%)
Fatigue	16 (39.02%)
Sore throat	9 (21.95%)
Diarrhea	11 (26.83%)
Headache	6 (14.63%)
Shiver	8 (19.51%)
Nausea and vomiting	3 (7.32%)
Myalgia/arthralgia	3 (7.32%)
Haemoptysis	1 (2.44%)
<b>Chest xray and CT findings</b>	
Bilateral pneumoniae	31 (75.61%)
Unilateral pneumoniae	9 (21.95%)
No abnormal density shadow	1 (2.44%)

Variables	Patients (n = 41)
<b>Treatment</b>	
Oxygen therapy	41 (100%)
Hormone therapy	9 (21.95%)
Antibiotics	32 (78.05%)
Oseltamivir	4 (9.76%)
Arbidol	23 (56.10%)
Lopinavir/ritonavir	27 (65.85%)
Inhalation of Nebulized Interferon	41 (100%)
Xuebijing (TCM Injection)	22 (53.66%)
Other Treatments	4 (9.76%)
<b>Length of stay at hospital</b>	
Mean (SD)	19 ± 8
<b>Clinical outcome</b>	
Discharged	41 (100%)

**Supplementary Table SII. Laboratory findings of 41 COVID19 patients admitted to Xuzhou Infectious Diseases Hospital. WBC: white blood cell. RBC: red blood cell. CRP: Creactive protein.**

Variables	Normal range	Patients (n=41)			
		Median of T1 (IQR)	Median of T2 (IQR)	Pvalue	Indicator
<b>Routine blood test (RBT)</b>					
WBC (10 <sup>9</sup> /L)	3.59.5	4.1 (3.325.41)	5.2 (4.26.3)	0.1578	↑
Neutrophils (10 <sup>9</sup> /L)	2.047.5	2.7 (2.133.87)	2.96 (2.213.81)	0.7881	↑
Lymphocytes (10 <sup>9</sup> /L)#	1.13.2	0.96 (0.691.46)	1.56 (1.271.86)	0.0000***	↑
RBC (012/L)	3.85.1	4.58 (4.414.96)	4.45 (4.134.82)	0.1236	↓
Hemoglobin (g/L)	115150	141 (127148)	137 (120143)	0.3261	↓
Platelet count (10 <sup>9</sup> /L)	125350	212 (155249)	227 (186282)	0.0104*	↑
<b>Blood biochemistry</b>					
Alanine aminotransferase (U/L)	950	20 (1332)	24 (1947)	0.0081**	↑
Aspartate aminotransferase (U/L)	1540	28 (2234)	26 (2034)	0.6437	↓
Lactate dehydrogenase (U/L)	110240	211 (168248)	176 (154204)	0.0109*	↓
Creatine kinase (U/L)	20200	75 (53114)	49 (3865)	0.0006***	↓
Total protein (g/L)	6585	72 (6874.9)	69 (67.771.7)	0.0239*	↓
Albumin (g/L)	4055	39.7 (37.644)	38.8 (37.140.7)	0.4971	↓
Bilirubin (umol/L)	020	12 (8.415.3)	10.4 (813)	0.1647	↓
Blood urea nitrogen (mmol/L)	1.78.3	3.64 (2.94.54)	2.9 (2.413.95)	0.3447	↓
Creatinine (umol/L)#	4097	50 (4465)	39.5 (36.548)	0.0002***	↓
Blood glucose (mmol/L)	3.86.2	6.7 (6.088.7)	5.7 (5.156.59)	0.0902	↓
Total cholesterol (mmol/L)	3.15.7	3.96 (3.394.48)	4.79 (4.335.85)	0.0001***	↑
Triglycerides (mmol/L)#	0.561.7	1.51 (0.992.04)	2.23 (1.583.03)	0.0015**	↑
Potassium (mmol/L)	3.55.3	3.8 (3.44)	4.13 (3.954.35)	0.0355*	↑
Sodium (mmol/L)	137147	139.2 (136.8141.2)	140.3 (138.5141.9)	0.5070	↑
Chloride (mmol/L)	99110	104.1 (102105.2)	105.9 (104.3107.1)	0.0022**	↑
Calcium (mmol/L)	2.12.7	2.26 (2.162.35)	2.44 (2.42.5)	0.0000***	↑
<b>Infectionrelated biomarkers</b>					
CRP (mg/L)#	05	9.4 (1.228.5)	0.7 (0.32.725)	0.0088**	↓

Note: P value: \*, <0.05, \*\*, <0.01, \*\*\*, <0.001, not statistically significant. T2T1 >= 7 days. IQR: interquartile range. #, parameter median out of normal range. ↑, increase after medical treatment. ↓, decrease after medical treatment.