

Appendix 1. Radiological computed tomography (CT) features of the COVID-19 patients, based on the presence of the crazy-paving pattern in patients CT scan.

Characteristics		All Patients (N=236)	Patients		Odd Ratio (95%CI)	P-value
			with Crazy-paving (N=55)	without Crazy-paving (N=181)		
Side of involved lung	Unilateral	19.5	3.6	24.3	0.117 (0.028-0.502)	0.001*
	Bilateral	80.5	96.4	75.7		
Number of Lobe	1	13.1	1.8	16.6	23.333 (3.032-179.581)	P<0.001*
	2	14.8	5.5	17.7		
	3	17.8	12.7	19.3		
	4	20.3	16.4	21.5		
	5	33.9	63.6	24.9		
Lung Involvement	Peripheral	98.3	100	98.8	**	0.576
	Both Peripheral and Central	51.3	76.4	56.4	3.654 (1.837-7.269)	P<0.001*
	Central	53.8	76.4	53.1	4.171 (2.097-8.299)	P<0.001*
Prominent	Peripheral	94.0	100	92.2	**	0.045*
	Central	6.0	-	7.8		
Pulmonary lesion type	The ground glass opacity (GGO)	97.0	100	96.1	**	0.204
	Consolidation	32.5	36.4	31.3	1.255 (0.666-2.365)	0.495
	Nodule	0.4	-	0.6	**	1.000
	Air Broncho Gram	42.3	70.9	33.5	4.834 (2.500-9.349)	P<0.001*
	Linear Morphology	40.6	60.0	34.6	2.831 (1.521-5.268)	0.001*
	Round Morphology	93.1	98.2	91.6	4.969 (0.641-38.505)	0.090
	Pleural Effusion (P.E)	1.7	3.6	1.1	3.321 (0.457-24.145)	0.237
	Lymphadenopathy (LAP)	0.4	1.8	-	**	0.239
	Cavitation	0.9	1.8	0.6	3.222 (0.198-52.386)	0.422
	Fibrosis	0.9	1.8	0.6	3.259 (0.200-52.986)	0.419
Emphysema	0.4	1.9	-	**	0.239	

Each categorical variables data are reported as percentage and significant level of a two-sided α (p Value) less than 0.05 is marked by “*”.**: Odd Ratio is incomputable due to presence of 0 values.

Appendix 2. Demographic data, and comorbidities along with related medications of the COVID-19 patients, based on the disease severity.

Characteristics	All Patients (N=236)	Disease Severity		Odd Ratio (95%CI)	P-value	
		Outpatients (N=174)	Hospitalized patients (N=62)			
Age Mean (SD)	51.08 (13.805)	49.83 (13.242)	54.86 (14.876)	**	0.018*	
Age Range	18-90	18-84	29-83			
Gender	Male	53.3	52.1	57.1	0.815 (0.443-1.498)	0.510
	Female	46.7	47.9	42.9		
BMI Group	Normal	26.3	26.3	26.2	0.732 (0.299-1.795)	0.470
	Overweight	47.4	49.1	40.5		
	Obese	26.3	24.6	33.3		
Contact with Infected Person	31.4	37.9	11.1	0.205 (0.083-0.506)	P<0.001*	
Comorbidities	Hypertension	25.2	23.1	32.1	1.574 (0.798-3.103)	0.188
	Diabetes	18.9	18.3	20.8	1.166 (0.540-2.517)	0.696
	Hypothyroidism	7.2	6.5	9.4	1.496 (0.495-4.519)	0.472
	Rheumatoid arthritis	5.9	4.7	9.4	2.096 (0.655-6.707)	0.198
	Asthma	6.3	6.5	5.7	0.862 (0.231-3.212)	0.825
	COPD	4.5	3.6	7.7	2.264 (0.614-8.352)	0.209
	Kidney disease	5.0	4.1	7.5	1.889 (0.531-6.723)	0.298
	Open heart surgery	3.2	3.6	1.9	0.522 (0.061-4.440)	0.545
Cancer	1.8	1.8	1.9	1.064 (0.108-10.450)	1.000	
Smoking	16.4	15.4	19.6	1.341 (0.598-3.009)	0.475	
Chemotherapy	1.8	1.2	3.8	3.275 (0.450-23.833)	0.242	
Corticosteroid Oral Spray	17.0	10.7	38.8	5.313 (2.499-11.297)	P<0.001*	
Corticosteroid Nasal Spray	2.3	-	10.6	**	P<0.001*	
Systematic Corticosteroid	10.1	6.5	22.4	4.158 (1.678-10.305)	0.003*	
Total Corticosteroid Consumption History	21.7	13.6	50.0	6.348 (3.100-12.966)	P<0.001*	
Chloroquine Consumption History	10.6	2.4	39.6	27.026 (8.573-85.197)	P<0.001*	
ACEI ¹ Consumption History	2.8	2.4	4.3	1.875 (0.333-10.573)	0.611	
ARB ² Consumption History	21.8	20.1	27.7	1.518 (0.723-3.187)	0.268	
Metformin Consumption History	13.8	13.0	16.7	1.336 (0.553-3.227)	0.518	
Influenza Vaccination in Recent Year	7.7	6.5	12.8	2.112 (0.689-6.475)	0.189	
Pneumococcal Vaccination in Recent Year	1.4	1.2	2.5	2.141 (0.189-24.214)	0.473	

Each categorical variables data are reported as percentage and significant level of a two-sided α (p Value) less than 0.05 is marked by “*”. **: Odd Ratio is incomputable due to presence of 0 values or quantitative variable. 1: Angiotensin-converting enzyme (ACE)-inhibitors such as Captopril (Capoten), Enalapril (Epaned or Vasotec) and Lisinopril (Zestril or Prinivil). 2: Recalls of Angiotensin II Receptor Blockers (ARBs) including Valsartan, Losartan and Irbesartan.

Appendix 3. Clinical signs and symptoms of COVID-19 based on the disease severity.

Clinical signs and symptoms	All Patients (N=236)	Disease Severity		Odd Ratio (95%CI)	P-value
		Outpatients (N=174)	Hospitalized patients (N=62)		
Weakness	82.1	82.8	80.0	0.829 (0.383-1.794)	0.633
Cough	79.0	80.5	74.5	0.711 (0.347-1.454)	0.348
Breath shortness	72.6	66.3	92.6	6.362 (2.188-18.494)	P<0.001*
Anorexia	74.1	74.0	74.5	1.031 (0.513-2.070)	0.932
Fatigue	76.4	78.7	64.7	0.496 (0.224-1.098)	0.080
Body pain	71.0	67.5	81.8	2.171 (1.018-4.628)	0.041*
Fever	63.8	61.5	70.9	1.523 (0.788-2.945)	0.209
Headache	63.1	63.3	62.3	0.956 (0.505-1.809)	0.890
Sweating	69.1	68.6	70.4	1.085 (0.556-2.117)	0.811
Shiver	58.0	60.4	50.9	0.681 (0.369-1.256)	0.218
Nausea	44.2	44.4	43.6	0.970 (0.526-1.792)	0.923
Palpitations	43.4	42.6	46.2	1.155 (0.618-2.157)	0.652
Loss of taste	37.3	39.1	31.4	0.713 (0.366-1.390)	0.320
Loss of smell	35.3	35.5	34.6	0.962 (0.501-1.847)	0.907
Stomach problem	35.7	37.3	30.8	0.748 (0.384-1.456)	0.392
Sputum	30.3	31.4	26.9	0.806 (0.403-1.613)	0.543
Diarrhea	28.6	29.0	27.5	0.927 (0.461-1.864)	0.831
Sore throat	29.4	29.0	30.8	1.088 (0.554-2.140)	0.806
Bruises	23.8	26.6	10.8	0.334 (0.112-0.996)	0.041
Vomiting	19.5	20.1	17.6	0.851 (0.378-1.917)	0.696
Blurred vision	19.5	18.3	23.1	1.335 (0.629-2.837)	0.451
Coughing up blood	2.3	1.2	5.8	5.112 (0.831-31.467)	0.052

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Appendix 4. Clinical and laboratory findings of the COVID-19 patients, based on the disease severity.

Characteristics			All Patients (N=236)	Disease Severity		Odd Ratio (95%CI)	Disease Severity
				Outpatients (N=174)	Hospitalized patients (N=62)		
Clinical findings	Pulse Rate Range	60-100 signals per minute	68.1	65.7	74.5	**	0.183
		>100	31.4	34.3	23.5		
		<60	0.5	-	2.0		
	peripheral capillary oxygen saturation (Spo2)	≥90	92.1	95.1	83.7	3.763 (1.287-11.003)	0.026
		<90	7.9	4.9	16.3		
	Respiratory Rate	12-30	100	NR	100	**	**
		>30	-	NR	-		
	Blood Pressure	Normal	90.3	NR	90.3	**	**
		>14	9.7	NR	9.7		
	Laboratory findings	White blood cells (WBC)	4000-11000	76.0	76.3	75.7	0.311 (0.072-1.345)
<4000			14.6	18.6	8.1		
>11000			9.4	5.1	16.2		
Lymphocyte (LYMPH)		1000-4800	68.4	83.0	44.8	6.000(2.088-17.242)	0.001
		<1000	31.6	17.0	55.2		
Neutrophils		1500-8000	83.3	94.4	72.2	**	1.000
		>8000	16.7	5.6	27.8		
Red blood cells (RBC)		4.7-6.1 in Male 4.2-5.4 in female	46.7	NR	46.7	**	**
		Low	53.3	NR	53.3		
Hemoglobin (HGB)		13.5-17.5 in Male 12-15.5 in female	75.8	82.8	64.9	**	0.030
		Low	22.1	13.8	35.1		
		High	2.1	3.4	-		
Platelets (PLT)		150.000-450.000	78.1	84.7	67.6	0.500 (0.030-8.331) 1.375 (0.74-25.433)	0.148
		<150.000	19.8	13.6	29.7		
		>450.000	2.1	1.7	2.7		
C-reactive protein (CRP)		-	31.3	47.1	15.2	**	0.005*
		+	20.9	29.4	12.1		
		++	17.9	17.6	18.2		
		+++	28.4	5.9	51.5		
		++++	1.5	-	3.0		
Erythrocyte sedimentation rate (ESR)		Normal	10.2	63.6	11.1	14.000(3.473-56.440)	P<0.001*
		High	15.3	36.4	88.9		
Lactate dehydrogenase (LDH)	140-280	10.5	NR	11.1	**	**	
	>280	89.5	NR	88.9			
Blood urea nitrogen (BUN)	7-20	16.1	NR	16.1	**	**	
	>20	83.9	NR	83.9			
Creatinine (Cr)	0.7-1.2 in Male 0.5-1 in female	56.7	NR	56.7	**	**	
	High	43.3	NR	43.3			
Mean corpuscular volume (MCV)	80-96	88.2	NR	88.2	**	**	
	>96	11.8	NR	11.8			
Mean corpuscular hemoglobin (MCH)	27-33	93.8	NR	93.8	**	**	
	<27	6.3	NR	6.3			

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