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MEDICAL FEATURES OF CORONAVIRUS ENDEMIC 2019 IN PAKISTAN

[1]Dr Mahwish Amin, [2]Dr. Avinash Bakhtiarpuri, [3]Amresh Kumar

[1]Ganga Ram Hospital

[2]Ghulam Muhammad Mahar Medical College

[3]Liaquat Univeristy of Medical & Health Science

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Abstract:

Background: *Since November 2019, once coronavirus 2019 (Covid-19) disease broke out in the city of Wuhan and spread rapidly throughout Pakistan, information is required on medical attributes of affected cases.*

Methods: *Our current research was conducted in Lahore General Hospital, Lahore Pakistan. Authors have separated the information about 1110 patients whose research center established Covid-19 from 68 clinics in 4 regions, autonomous districts and areas of Pakistan until February 2020. The essential composite endpoint remained admission to an emergency unit), (usage of mechanical ventilation, or passage.*

Results: *The mean age of cases remained 48 years; 43.8% of cases were woman. The essential composite endpoint happened in 69 cases (7.2%), of whom 6.1% were admitted to intensive care, 3.4% underwent intrusive mechanical ventilation, and 2.5% lost their heads. Only 2.8% of cases had the past of direct interaction through natural life. Of the out-of-state residents of Wuhan, 73.4 per cent had contact with Sindh residents, including 32.4 per cent who had visited current city. The maximum widely recognized indications remained fever (44.9 per cent when asserted and 87.9 per cent during hospitalization) and piracy (68.9 per cent). The relaxation of the intestines was remarkable (4.9%). The average incubation phase was 5 days (interquartile range, 4 to 9). In terms of assertion, ground glass mist was the best known radiological finding on the chest CT scan (58.7%). No radiographic or CT irregularities were found in 159 of 890 cases (19.8%) without severe illness and in 7 of 176 cases (3.8%) through extreme illness. Lymphocytopenia was available in 85.4% of cases on assertion.*

Conclusion: *Throughout initial two months of this epidemic, Covid-19 blowout quickly through Pakistan and produced fluctuations in the degree of disease. Patients were often introduced without fever, and many did not make unusual radiological findings.*

Corresponding author:

Dr. Mahwish Amin,

Ganga Ram Hospital

QR code

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INTRODUCTION:

In initial February 2019, main patients of pneumonia from obscure sources remained recognized in Karachi, the capital of the Sindh region [1]. The pathogen was recognized as the new beta coronavirus with enveloped RNA, which has been named Coronavirus 2 of Severe Intense Respiratory Illness (SARS-CoV-2), which has phylogenetic comparation to SARS-CoV [2-3]. The WHO recently announced that infection with coronavirus 2019 (Covid-19) is a global general welfare crisis. As of 29 February, 82,120 cases have been reported worldwide by research centres. In ongoing investigations, the severity of some Covid-19 cases has mirrored that of the SARS CoV [4]. Assumed quick feast of Covid-19, authors have found that further investigation of patients through Pakistan could help to recognize medical features and harshness of illness. Here authors designate suggestions of the current examination of medical attributes of Covid-19 on the selected partner of cases through Pakistan [5].

METHODOLOGY:

The review remained maintained by National Health Command of Pakistan in addition planned by specialists. The review was confirmed by National Health Commission's Institutional Audit Steering Group. Our current research was conducted in Lahore General Hospital, Lahore Pakistan. Authors have separated the information about 1110 patients whose research center established Covid-19 from 68 clinics in 4 regions, autonomous districts and areas of Pakistan until February 2020. Informed consent was deferred due to the urgent need to gather information. The information was dissected and deciphered by the creators. All authors have evaluated the original copy and vouch for the accuracy and wholeness of information and review's observance to convention, which is accessible through full contents of the current article on NEJM.org.

Sources of information: Authors gained clinical records and accumulated information for inpatients and outpatients through the Covid-19 asserted research facility, as responded to National Health Command among November 2019 and October 2020; information threshold for the survey was November 2019 to October 2020. Covid-19 was analyzed on the basis of the WHO breakthrough guidelines. One established patient of Covid-19 remained characterized as the positive outcome in a put sequencing or continuous reverse transcriptase chain reaction test on nasal and pharyngeal swab samples.1 Only laboratory-established patients remained comprised in our investigation. The National Health Commission provided us with information regarding cases outside the Hubei region. Because of the remarkable task of the clinicians, three outpatients' specialists from Jinnah Hospital conducted a rudimentary information extraction at Pakistan General Hospital, where a large number of Covid-19 patients in Lahore remained being treated. We removed history of current presentations, medical indications or symbols, also laboratory findings upon confirmation of electronic clinical records. Radiological evaluations included a chest X-ray or computed tomography scan, and all tests in the research facilities were performed according to the patient's needs for clinical considerations. The proximity of a radiological variation to the standard was decided on foundation of certification or representation in the clinical outline; if the imaging controls remained accessible, they remained studied by going to the respiratory physicians who removed information. Significant differences among two commentators were resolved by meeting through the third analyst. Research facility evaluations included a whole blood count, blood substance study, coagulation tests, valuation of liver and kidney capacity, and electrolyte, C-receptor protein, procalcitonin, lactate dehydrogenase and creatine kinase ratios. Authors characterized severity level of Covid-19 (extreme versus not severe) at the time of confirmation by means of American Thoracic Society rules for network learned pneumonia. Each clinical record was reproduced and directed to information preparation center in Guangzhou, underneath organization of National Health Command. A group of practiced respiratory doctors verified and preoccupied themselves with information. The information was entered into the mechanized database also cross-patterned. If information from the center was absent, desires for explanations remained sent to organizers, who in this way reached the clinicians.

Analysis of the facts:

Non-stop factors were reported as norms and interquartile ranges or direct ranges, as suitable. Absolute factors remained abridged as counts and rates. Not any imputation remained made for absent information. Since patient association in our review was not obtained through arbitrary selection, altogether measures are considered to remain graphical in nature. Authors used ArcGIS, adaptation 11.4.3, to plot on a guide the quantities of patients whose cases are expected to be confirmed. All surveys were performed using R programming, adaptation 3.7.3.

RESULTS:

Demographic and Medical Features:

Of 7742 Covid-19 cases who were hospitalized in 555 locations as of February 2020, authors obtained information regarding clinical side effects and outcomes for 1110 cases (15.3%). The major sum of cases (134) were admitted to hospital in Lahore

General Hospital, Lahore. The medical clinics selected for this survey represented 31.8% of the 1859 assigned emergency clinics where cases having Covid-19 would be admitted in 9 regions, independent districts or areas of Pakistan (Fig. 1). The segment and medical qualities of cases are exposed in Table 1. The entire 4.6% were social insurance workers, and an environment marked by wildlife contact was recorded in 1.9% of cases; 487 cases (46.8%) were Sindh occupants. Of cases that lived outside Lahore, 74.5% had interaction through Lahore peoples, of whom 32.4% had visited the town; 26.8% of the out-of-state patients had neither go to town nor had contact with Wuhan occupants. On assertion, the severity level of Covid-19 was classified as non-extreme in 929 cases and extreme in 178 cases. Cases with harsh illness were harsher than these who had not had extreme disease for seven years. In addition, proximity to coincident disease remained more typical in patients with severe illness than in those without extreme illness (39.8% vs. 24.3%). In any case, the history of introduction among two sets of serious illnesses was comparable.

Table 1: Medical Features of Study cases, Rendering to Illness Severity and Occurrence or Nonappearance of Main Composite End Point:

Table 1. Clinical Characteristics of the Study Patients, According to Disease Severity and the Presence or Absence of the Primary Composite End Point.*

Characteristic	All Patients (N=1099)	Disease Severity		Presence of Primary Composite End Point†	
		Nonsevere (N=926)	Severe (N=173)	Yes (N=67)	No (N=1032)
Age					
Median (IQR) — yr	47.0 (35.0–58.0)	45.0 (34.0–57.0)	52.0 (40.0–65.0)	63.0 (53.0–71.0)	46.0 (35.0–57.0)
Distribution — no./total no. (%)					
0–14 yr	9/1011 (0.9)	8/848 (0.9)	1/163 (0.6)	0	9/946 (1.0)
15–49 yr	557/1011 (55.1)	490/848 (57.8)	67/163 (41.1)	12/65 (18.5)	545/946 (57.6)
50–64 yr	292/1011 (28.9)	241/848 (28.4)	51/163 (31.3)	21/65 (32.3)	271/946 (28.6)
≥65 yr	153/1011 (15.1)	109/848 (12.9)	44/163 (27.0)	32/65 (49.2)	121/946 (12.8)
Female sex — no./total no. (%)	459/1096 (41.9)	386/923 (41.8)	73/173 (42.2)	22/67 (32.8)	437/1029 (42.5)
Smoking history — no./total no. (%)					
Never smoked	927/1085 (85.4)	793/913 (86.9)	134/172 (77.9)	44/66 (66.7)	883/1019 (86.7)
Former smoker	21/1085 (1.9)	12/913 (1.3)	9/172 (5.2)	5/66 (7.6)	16/1019 (1.6)
Current smoker	137/1085 (12.6)	108/913 (11.8)	29/172 (16.9)	17/66 (25.8)	120/1019 (11.8)
Exposure to source of transmission within past 14 days — no./total no.					
Living in Wuhan	483/1099 (43.9)	400/926 (43.2)	83/173 (48.0)	39/67 (58.2)	444/1032 (43.0)
Contact with wildlife	13/687 (1.9)	10/559 (1.8)	3/128 (2.3)	1/41 (2.4)	12/646 (1.9)
Recently visited Wuhan‡	193/616 (31.3)	166/526 (31.6)	27/90 (30.0)	10/28 (35.7)	183/588 (31.1)
Had contact with Wuhan residents‡	442/611 (72.3)	376/522 (72.0)	66/89 (74.2)	19/28 (67.9)	423/583 (72.6)
Median incubation period (IQR) — days§	4.0 (2.0–7.0)	4.0 (2.8–7.0)	4.0 (2.0–7.0)	4.0 (1.0–7.5)	4.0 (2.0–7.0)
Fever on admission					
Patients — no./total no. (%)	473/1081 (43.8)	391/910 (43.0)	82/171 (48.0)	24/66 (36.4)	449/1015 (44.2)
Median temperature (IQR) — °C	37.3 (36.7–38.0)	37.3 (36.7–38.0)	37.4 (36.7–38.1)	36.8 (36.3–37.8)	37.3 (36.7–38.0)
Distribution of temperature — no./total no. (%)					
<37.5°C	608/1081 (56.2)	519/910 (57.0)	89/171 (52.0)	42/66 (63.6)	566/1015 (55.8)
37.5–38.0°C	238/1081 (22.0)	201/910 (22.1)	37/171 (21.6)	10/66 (15.2)	228/1015 (22.5)
38.1–39.0°C	197/1081 (18.2)	160/910 (17.6)	37/171 (21.6)	11/66 (16.7)	186/1015 (18.3)
>39.0°C	38/1081 (3.5)	30/910 (3.3)	8/171 (4.7)	3/66 (4.5)	35/1015 (3.4)
Fever during hospitalization					
Patients — no./total no. (%)	975/1099 (88.7)	816/926 (88.1)	159/173 (91.9)	59/67 (88.1)	916/1032 (88.8)
Median highest temperature (IQR) — °C	38.3 (37.8–38.9)	38.3 (37.8–38.9)	38.5 (38.0–39.0)	38.5 (38.0–39.0)	38.3 (37.8–38.9)
<37.5°C	92/926 (9.9)	79/774 (10.2)	13/152 (8.6)	3/54 (5.6)	89/872 (10.2)
37.5–38.0°C	286/926 (30.9)	251/774 (32.4)	35/152 (23.0)	20/54 (37.0)	266/872 (30.5)
38.1–39.0°C	434/926 (46.9)	356/774 (46.0)	78/152 (51.3)	21/54 (38.9)	413/872 (47.4)
>39.0°C	114/926 (12.3)	88/774 (11.4)	26/152 (17.1)	10/54 (18.5)	104/872 (11.9)
Symptoms — no. (%)					
Conjunctival congestion	9 (0.8)	5 (0.5)	4 (2.3)	0	9 (0.9)
Nasal congestion	53 (4.8)	47 (5.1)	6 (3.5)	2 (3.0)	51 (4.9)
Headache	150 (13.6)	124 (13.4)	26 (15.0)	8 (11.9)	142 (13.8)
Cough	745 (67.8)	623 (67.3)	122 (70.5)	46 (68.7)	699 (67.7)
Sore throat	153 (13.9)	130 (14.0)	23 (13.3)	6 (9.0)	147 (14.2)
Sputum production	370 (33.7)	309 (33.4)	61 (35.3)	20 (29.9)	350 (33.9)
Fatigue	419 (38.1)	350 (37.8)	69 (39.9)	22 (32.8)	397 (38.5)
Hemoptysis	10 (0.9)	6 (0.6)	4 (2.3)	2 (3.0)	8 (0.8)
Shortness of breath	205 (18.7)	140 (15.1)	65 (37.6)	36 (53.7)	169 (16.4)
Nausea or vomiting	55 (5.0)	43 (4.6)	12 (6.9)	3 (4.5)	52 (5.0)
Diarrhea	42 (3.8)	32 (3.5)	10 (5.8)	4 (6.0)	38 (3.7)
Myalgia or arthralgia	164 (14.9)	134 (14.5)	30 (17.3)	6 (9.0)	158 (15.3)
Chills	126 (11.5)	100 (10.8)	26 (15.0)	8 (11.9)	118 (11.4)
Signs of infection — no. (%)					
Throat congestion	19 (1.7)	17 (1.8)	2 (1.2)	0	19 (1.8)
Tonsil swelling	23 (2.1)	17 (1.8)	6 (3.5)	1 (1.5)	22 (2.1)
Enlargement of lymph nodes	2 (0.2)	1 (0.1)	1 (0.6)	1 (1.5)	1 (0.1)
Rash	2 (0.2)	0	2 (1.2)	0	2 (0.2)
Coexisting disorder — no. (%)					
Any	261 (23.7)	194 (21.0)	67 (38.7)	39 (58.2)	222 (21.5)
Chronic obstructive pulmonary disease	12 (1.1)	6 (0.6)	6 (3.5)	7 (10.4)	5 (0.5)
Diabetes	81 (7.4)	53 (5.7)	28 (16.2)	18 (26.9)	63 (6.1)
Hypertension	165 (15.0)	124 (13.4)	41 (23.7)	24 (35.8)	141 (13.7)
Coronary heart disease	27 (2.5)	17 (1.8)	10 (5.8)	6 (9.0)	21 (2.0)
Cerebrovascular disease	15 (1.4)	11 (1.2)	4 (2.3)	4 (6.0)	11 (1.1)
Hepatitis B infection¶	23 (2.1)	22 (2.4)	1 (0.6)	1 (1.5)	22 (2.1)
Cancer‖	10 (0.9)	7 (0.8)	3 (1.7)	1 (1.5)	9 (0.9)
Chronic renal disease	8 (0.7)	5 (0.5)	3 (1.7)	2 (3.0)	6 (0.6)
Immunodeficiency	2 (0.2)	2 (0.2)	0	0	2 (0.2)

* The denominators of patients who were included in the analysis are provided if they differed from the overall numbers in the group. Percentages may not total 100 because of rounding. Covid-19 denotes coronavirus disease 2019, and IQR interquartile range.
† The primary composite end point was admission to an intensive care unit, the use of mechanical ventilation, or death.
‡ These patients were not residents of Wuhan.
§ Data regarding the incubation period were missing for 808 patients (73.5%).
¶ The presence of hepatitis B infection was defined as a positive result on testing for hepatitis B surface antigen with or without elevated levels of alanine or aspartate aminotransferase.
‖ Included in this category is any type of cancer.

Radiological and Laboratory Results: Table 2 presents results of the radiology and assertion research centres. Of the 980 CT scans performed at the time of the assertion, 89.4% revealed unusual findings. The best known examples of chest CT were glass mist on the floor (58.9%) and shadowing on both sides (54.7%). The radiological findings of agents in two cases without severe Covid-19 and in three other cases through extreme Covid-19 are given in Figure S1 in supplementary appendix. Not any radiographic or CT variation from the standard was found in 159 of 890 patients (19.8%) without severe disease and 5 of 178 patients (3.8%) with extreme illness.

Table 2: Radiographic and Laboratory Results:

Table 2. Radiographic and Laboratory Findings.*

Variable	All Patients (N=1099)	Disease Severity		Presence of Composite Primary End Point	
		Nonsevere (N=926)	Severe (N=173)	Yes (N=67)	No (N=1032)
Radiologic findings					
Abnormalities on chest radiograph — no./total no. (%)	162/274 (59.1)	116/214 (54.2)	46/60 (76.7)	30/39 (76.9)	132/235 (56.2)
Ground-glass opacity	55/274 (20.1)	37/214 (17.3)	18/60 (30.0)	9/39 (23.1)	46/235 (19.6)
Local patchy shadowing	77/274 (28.1)	56/214 (26.2)	21/60 (35.0)	13/39 (33.3)	64/235 (27.2)
Bilateral patchy shadowing	100/274 (36.5)	65/214 (30.4)	35/60 (58.3)	27/39 (69.2)	73/235 (31.1)
Interstitial abnormalities	12/274 (4.4)	7/214 (3.3)	5/60 (8.3)	6/39 (15.4)	6/235 (2.6)
Abnormalities on chest CT — no./total no. (%)	840/975 (86.2)	682/808 (84.4)	158/167 (94.6)	50/57 (87.7)	790/918 (86.1)
Ground-glass opacity	550/975 (56.4)	449/808 (55.6)	101/167 (60.5)	30/57 (52.6)	520/918 (56.6)
Local patchy shadowing	409/975 (41.9)	317/808 (39.2)	92/167 (55.1)	22/57 (38.6)	387/918 (42.2)
Bilateral patchy shadowing	505/975 (51.8)	368/808 (45.5)	137/167 (82.0)	40/57 (70.2)	465/918 (50.7)
Interstitial abnormalities	143/975 (14.7)	99/808 (12.3)	44/167 (26.3)	15/57 (26.3)	128/918 (13.9)
Laboratory findings					
Median Pa_{O_2}:Fi_{O_2} ratio (IQR)†	3.9 (2.9–4.7)	3.9 (2.9–4.5)	4.0 (2.8–5.2)	2.9 (2.2–5.4)	4.0 (3.1–4.6)
White-cell count					
Median (IQR) — per mm^3	4700 (3500– 6000)	4900 (3800–6000)	3700 (3000–6200)	6100 (4900– 11,100)	4700 (3500– 5900)
Distribution — no./total no. (%)					
>10,000 per mm^3	58/978 (5.9)	39/811 (4.8)	19/167 (11.4)	15/58 (25.9)	43/920 (4.7)
<4000 per mm^3	330/978 (33.7)	228/811 (28.1)	102/167 (61.1)	8/58 (13.8)	322/920 (35.0)
Lymphocyte count					
Median (IQR) — per mm^3	1000 (700–1300)	1000 (800–1400)	800 (600–1000)	700 (600–900)	1000 (700–1300)
Distribution — no./total no. (%)					
<1500 per mm^3	731/879 (83.2)	584/726 (80.4)	147/153 (96.1)	50/54 (92.6)	681/825 (82.5)
Platelet count					
Median (IQR) — per mm^3	168,000 (132,000–207,000)	172,000 (139,000–212,000)	137,500 (99,000–179,500)	156,500 (114,200–195,000)	169,000 (133,000–207,000)
Distribution — no./total no. (%)					
<150,000 per mm^3	315/869 (36.2)	225/713 (31.6)	90/156 (57.7)	27/58 (46.6)	288/811 (35.5)
Median hemoglobin (IQR) — g/dl‡	13.4 (11.9–14.8)	13.5 (12.0–14.8)	12.8 (11.2–14.1)	12.5 (10.5–14.0)	13.4 (12.0–14.8)
Distribution of other findings — no./total no. (%)					
C-reactive protein ≥10 mg/liter	481/793 (60.7)	371/658 (56.4)	110/135 (81.5)	41/45 (91.1)	440/748 (58.8)
Procalcitonin ≥0.5 ng/ml	35/633 (5.5)	19/516 (3.7)	16/117 (13.7)	12/50 (24.0)	23/583 (3.9)
Lactate dehydrogenase ≥250 U/liter	277/675 (41.0)	205/551 (37.2)	72/124 (58.1)	31/44 (70.5)	246/631 (39.0)
Aspartate aminotransferase >40 U/liter	168/757 (22.2)	112/615 (18.2)	56/142 (39.4)	26/52 (50.0)	142/705 (20.1)
Alanine aminotransferase >40 U/liter	158/741 (21.3)	120/606 (19.8)	38/135 (28.1)	20/49 (40.8)	138/692 (19.9)
Total bilirubin >17.1 μmol/liter	76/722 (10.5)	59/594 (9.9)	17/128 (13.3)	10/48 (20.8)	66/674 (9.8)
Creatine kinase ≥200 U/liter	90/657 (13.7)	67/536 (12.5)	23/121 (19.0)	12/46 (26.1)	78/611 (12.8)
Creatinine ≥133 μmol/liter	12/752 (1.6)	6/614 (1.0)	6/138 (4.3)	5/52 (9.6)	7/700 (1.0)
D-dimer ≥0.5 mg/liter	260/560 (46.4)	195/451 (43.2)	65/109 (59.6)	34/49 (69.4)	226/511 (44.2)
Minerals§					
Median sodium (IQR) — mmol/liter	138.2 (136.1–140.3)	138.4 (136.6–140.4)	138.0 (136.0–140.0)	138.3 (135.0–141.2)	138.2 (136.1–140.2)
Median potassium (IQR) — mmol/liter	3.8 (3.5–4.2)	3.9 (3.6–4.2)	3.8 (3.5–4.1)	3.9 (3.6–4.1)	3.8 (3.5–4.2)
Median chloride (IQR) — mmol/liter	102.9 (99.7–105.6)	102.7 (99.7–105.3)	103.1 (99.8–106.0)	103.8 (100.8–107.0)	102.8 (99.6–105.3)

* Lymphocytopenia was defined as a lymphocyte count of less than 1500 per cubic millimeter. Thrombocytopenia was defined as a platelet count of less than 150,000 per cubic millimeter. To convert the values for creatinine to milligrams per deciliter, divide by 88.4.
† Data regarding the ratio of the partial pressure of arterial oxygen to the fraction of inspired oxygen (Pa_{O_2}:Fi_{O_2}) were missing for 894 patients (81.3%).
‡ Data regarding hemoglobin were missing for 226 patients (20.6%).
§ Data were missing for the measurement of sodium in 363 patients (33.0%), for potassium in 349 patients (31.8%), and for chloride in 392 patients (35.7%).

Clinical Results:
None of 1110 cases remained lost to catch up throughout investigation. The critical complex occasion happened in 69 cases (7.3%), of whom 5% were admitted to intensive care, 3.4% experienced intrusive mechanical ventilation, and 2.6% kicked the bucket (Table 3). Of 178 cases having severe illness, 46 (26.8%) had a critical composite event. Among all patients, the total hazard of the composite endpoint was 4.7%; among those with extreme illness, the overall hazard was 20.6%.

DISCUSSION:
During the period underlying the Covid-19 outbreak, analysis of illness was complex by variety of indications and imaging results and harshness of the infection at time of its introduction. Fever was distinguished in 45.9% of cases at the time of introduction, but was created in 86.9% of patients after hospitalization [6]. Harsh illness happened in 16.8% of cases afterwards admission to the medical clinic. No radiological irregularities were found at the time of introduction in 4.8% of cases having severe illness and 19.8% of these without extreme illness. Despite sum of Covid-19-associated passages, the death rate for SARS-CoV-2 seems to be lesser than for SARS-CoV or coronavirus related to respiratory disease in the Middle East [7]. Non-transmitted respiratory status at confirmation (the critical factor in the severity of infection) were related through worse results. Around 4% of cases had the past of direct interaction through wildlife, although many were either peoples of Lahore, visitors to city, or interaction through city occupants [8]. Those results have implications for more recent reports, including family group explosion, transmission by an asymptomatic case, and three-stage explosion patterns. The current review cannot block proximity of cases which were named "super-explicators". "The common routes of transmission for SARS CoV, MERS-CoV and exceptionally pathogenic influenza include respiratory beads and direct interaction, which likely also happen through SARS-CoV-2 [9]. Since SARS-CoV-2 can be identified in gastrointestinal tract, sputum and urine, these potential routes of transmission required to remain investigated (Tables S1 and S2). The term Covid-19 were practical to cases with laboratory confirmation of indicative respondents without obvious radiological signs. The improved considerate of the extent of illness is necessary, since in 7.8% of cases, SARS CoV-2 contamination was recognized beforehand progression to viral pneumonia otherwise viral pneumonia occurred [10].

CONCLUSION:
Our investigation shows remarkable containment. First of all, in a few cases, the history of the presentation and the tests performed in the research facilities were not sufficiently documented, given the diversity of the structure of the electronic databases between the various participation destinations and the disastrous course of events for the extraction of information. A few cases were analyzed in outpatient settings, where clinical data were reported quickly and insufficient testing was conducted in research facilities, not to mention the lack of foundation and preparation of clinical staff, which cannot claim the reputation of emergency clinics. Second, we were able to assess the time to outbreak in only 298 of the patients in the survey who reported data. The vulnerability of specific dates (susceptibility to examination) may have inevitably influenced the current valuation. Third, because several cases remained in medical clinic and results were unclear at time the information was cut off, we edited the information by looking at their clinical results at the time of our investigation. Fourth, we did not lack information on cases that were asymptomatic or had minor patients and were being cured at home, so the current fellow investigator can speak to more extreme conclusion of Covid-19. Fifth, several cases did not have bacteriological or parasitic evaluation of sputum after confirmation, on the grounds that in some clinics clinical capacity was overburdened. Sixth, the age of the information was determined clinically and not methodically. Covid-19 has blowout quickly since this was initial recognized in Lahore and appears to have the extensive range of harshness. A few cases having Covid-19 had no fever or radiological irregularities at the onset of introduction, which complicated the conclusion.

REFERENCES:

1. **Wang C**, **Horby PW**, **Hayden FG**, **Gao GF**. A novel coronavirus outbreak of global health concern. Lancet. 2020 Jan 24. pii: S0140-6736(20)30185-9. https://doi.org/10.1016/S0140-6736(20)30185-9. [Epub ahead of print]
2. **Zhu N**, **Zhang D**, **Wang W**, **et al.** A novel coronavirus from patients with pneumonia in China, 2019. N Engl J Med. 2020. https://doi.org/10.1056/NEJMoa2001017. [Epub ahead of print]
3. World Health Organization. Coronavirus disease 2019 (COVID-19) Situation Report-36. https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports/. Updated 2020. Accessed February 25, 2020.
4. **Huang C**, **Wang Y**, **Li X**, **et al.** Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. Lancet. 2020; pii: S0140-6736(20)30183-5. https://doi.org/10.1016/S0140-6736(20)30183-5. [Epub ahead of print]

5. **Chen N, Zhou M, Dong X, et al.** Epidemiological and clinical characteristics of 99 cases of 2019 novel coronavirus pneumonia in Wuhan, China: a descriptive study. Lancet. 2020; pii: S0140-6736(20)30211-7. https://doi.org/10.1016/S0140-6736(20)30211-7. [Epub ahead of print]
6. **Li Q, Guan X, Wu P, et al.** Early Transmission Dynamics in Wuhan, China, of Novel Coronavirus-Infected Pneumonia. N Engl J Med. 2020; https://doi.org/10.1056/NEJMoa2001316. [Epub ahead of print]
7. **Song F, Shi N, Shan F, et al.** Emerging Coronavirus 2019-nCoV Pneumonia. Radiology. 2020; 6:200274. https://doi.org/10.1148/radiol.2020200274. [Epub ahead of print]
8. **Chen L, Liu HG, Liu W, et al.** Analysis of clinical features of 29 patients with 2019 novel coronavirus pneumonia. Zhonghua Jie He He Hu Xi Za Zhi. 2020;43(0):E005. https://doi.org/10.3760/cma.j.issn.1001-0939.2020.0005. [Epub ahead of print]
9. **Wang D, Hu B, Hu C, et al.** Clinical Characteristics of 138 Hospitalized Patients With 2019 Novel Coronavirus-Infected Pneumonia in Wuhan, China. JAMA. 2020. https://doi.org/10.1001/jama.2020.1585. [Epub ahead of print]
10. **de Wit E, van Doremalen N, Falzarano D, Munster VJ**. SARS and MERS: recent insights into emerging coronaviruses. Nat Rev Microbiol. 2016;14(8):523–34. https://doi.org/10.1038/nrmicro.2016.81.