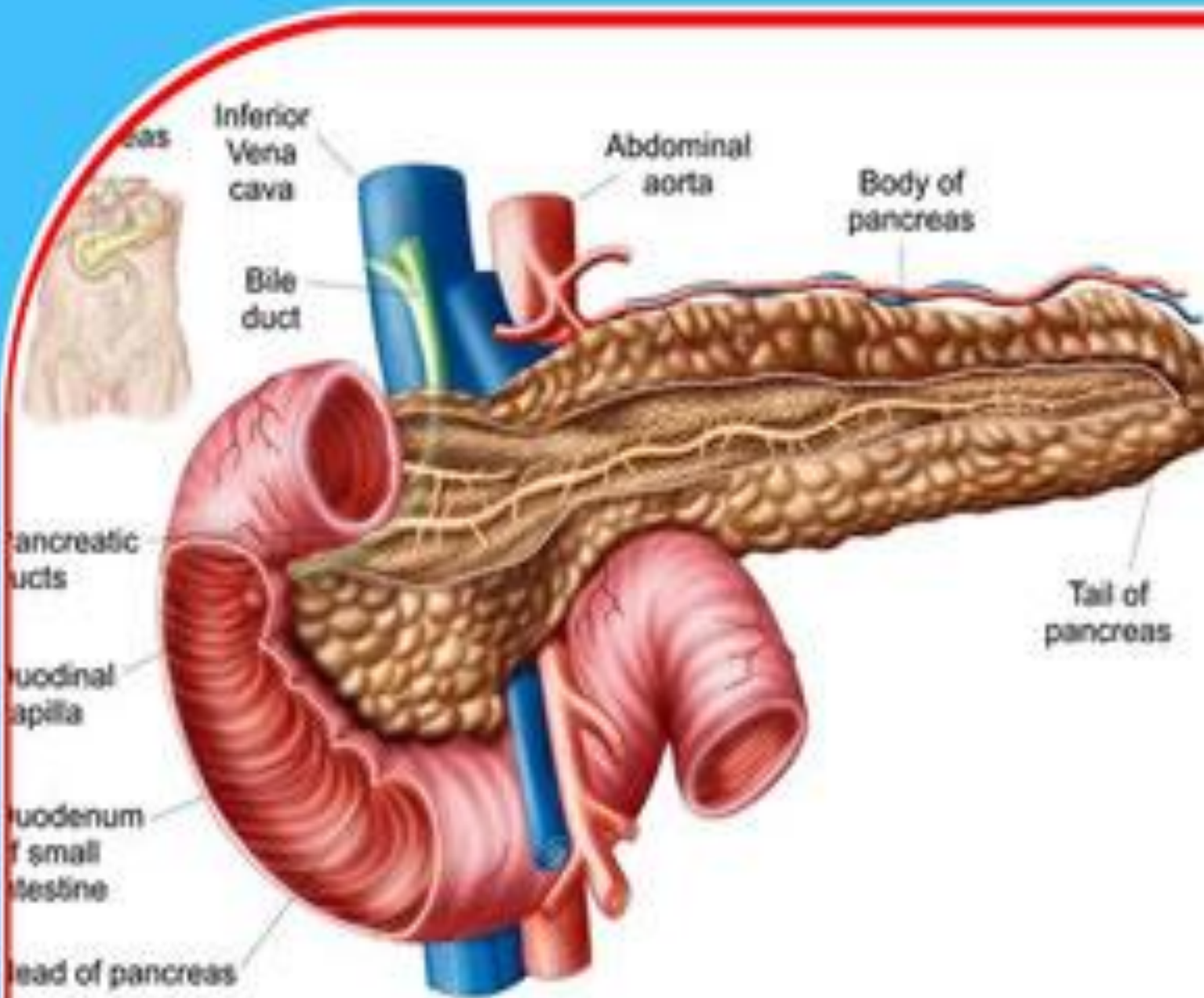


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**COVID-19, A Global Alarm: Intra-Country Travelling, The
Root Cause of COVID-19 Spreading in Pakistan After
International Importation**

Syed Inamullah, Syed Abdul Nasir, Abdul Rehman, Rahmatullah, Syed
Ashrafuddin



COVID-19, A Global Alarm: Intra-Country Travelling, The Root Cause of COVID-19 Spreading in Pakistan After International Importation

Syed Inamullah^{1*}, Syed Abdul Nasir², Abdul Rehman³, Rehmatullah¹, Syed Ashrafuddin⁴

1. Department of zoology university of Baluchistan, Pakistan.

2. Bolan university of medical and health sciences, Quetta Pakistan.

3. Department of Home and tribal affairs, government of Baluchistan, Pakistan.

4. department of biochemistry university of Baluchistan, Pakistan.

*Corresponding author: Syed Inamullah, email: inmzoology@gmail.com

Abstract

Background: COVID-19 is a global alarm which has caused thousands of deaths in several parts of the world since December, 2019.

Objectives: The aim of this study research was to examine worldwide covid-19 cases, deaths, and occurrence of cases in Pakistan by intra-country drifting of people after massive lockdown in the country.

Materials and Methods: The data was collected from WHO dashboard daily situation report and directorate of health government of Baluchistan, for the period of six days from 15th March to 21st March 2020.

Result: On March 21st a total 533 cases of COVID-19 followed by 3 deaths were reported. Linear regression analysis results of total cases and deaths around the world exhibited that the *R-square* value was (0.99), which indicated strong relationship between emerging cases and deaths.

Conclusion: Limitation and sophisticated handling current cases can be only effective way to decline more scattering of this out break.

Key word: COVID-19, global alarm, intra-country travelling, fast spreading, lockdown, Pakistan.

Introduction

In last week of December 2019, a novel and fast emerging pneumonia cases were reported from Wuhan city (province Hubei) china to world health organization [1]. In first week of January 2020, an agent was identified by Center for Diseases Control in blood sample of patients suffered with coronavirus as sar-cov25, and termed the disease caused by this virus known as covid-19[2]. Epidemiologist considered Hunan seafood market as central and initial location of this lethal virus [3]. The market was locked on December 31, 2019 [3, 4]. And each sort of wild animal marketing activity was prohibited across the china. Higher authorities in the china-imposed limitation of people traveling from the contaminated and infected city for restriction of coronavirus outside the province [5, 6]. Despite of limitation, local and international residents moved to and from province, which occasioned in enhancement of cases inside and outside the china at very high speed [7]. On 30 January 2020, world health organization declared international public health emergency and COVID - 19 as pandemic in first week of March 2020 [8].

As on March 21, 2020 the total (292142) confirmed cases with (12784) deaths have been reported to WHO. Till now 190 countries and their specific territories have been affected chiefly in China, Iran, South Korea and Italy.[9] . Highest number of cases are registered in China with 8149(27%) with 3267 (25%) deaths. On other side, China being the origin of COVID-19 is recuperating with very high speed as compared to other countries of the world. On March 19th Wuhan city have not registered any case that is a virtuous signal for the infected territories of the world. Outside the China, the affected countries include Iran, South Korea and Italy with highest number 6557 (51%) deaths confirmed. Instead of high infectivity rate across the globe, the fatality rate was projected as 3.7%, mostly occurring in people above 80 years [10].

For the time being, there is no appropriate accessible treatment for COVID-19, but world health organization and center for disease control (CDC) directs the limited prescription to thwart this outbreak [11]. Scientist in many countries toiling hard to develop a vaccine to control the pandemic disease. Several scientists are investigating the effectiveness of interferon-alpha and topinavir that was Implied formerly for treating the SARS.

In this research study our aim is to evaluate the expansion of COVID-19 through Intra-country traveling of local residents from major cities to their permanent destinations after countrywide lockdown in March 2020 and to give few recommendations to confine this fast spreading pandemic in the country from further economic and human loss.

Materials & Method

Data Collection,

The data regarding the total cases, total deaths of five major affected countries and Pakistan were collected from WHO emergency dashboard [12], Chines health commission daily update website and the data of inland Coronavirus cases in Pakistan was collected from health directorate government of Baluchistan, Pakistan.

Analysis of data:

The collected data was figured and tabulated by using MS Excel sheet 2016 for inland cases in Pakistan as in (Table 01& Fig 01) and Figure 02 presenting increase in cases from mentioned date and table 02 ,figure 03 and 04 showing total global cases, regression result

and total cases with corresponding deaths around the world.

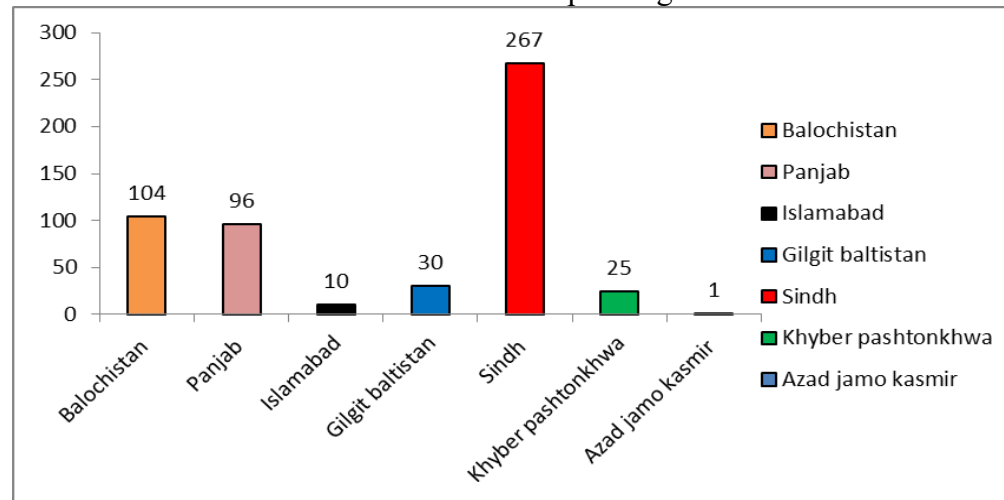


Figure 1. Showing COVID-19 cases in different parts of Pakistan.

Table 1. showing total cases with percentages in four provinces (Baluchistan, Punjab, Sindh and Khyber pashtonkhwa), Islamabad (capital territory), Gilgith Baltistan and Azad Jammu Kashmir as on March 21st, 2020 daily situation report.

Territory name	Total cases	percentage
Balochistan	104	19.51
Panjab	96	18.01
Islamabad	10	1.87
Gilgit baltistan	30	5.62
Sindh	267	50.09
Khyber pashtonkhwa	25	4.69
Azad jamo kasmir	1	0.18
Total	533	100%

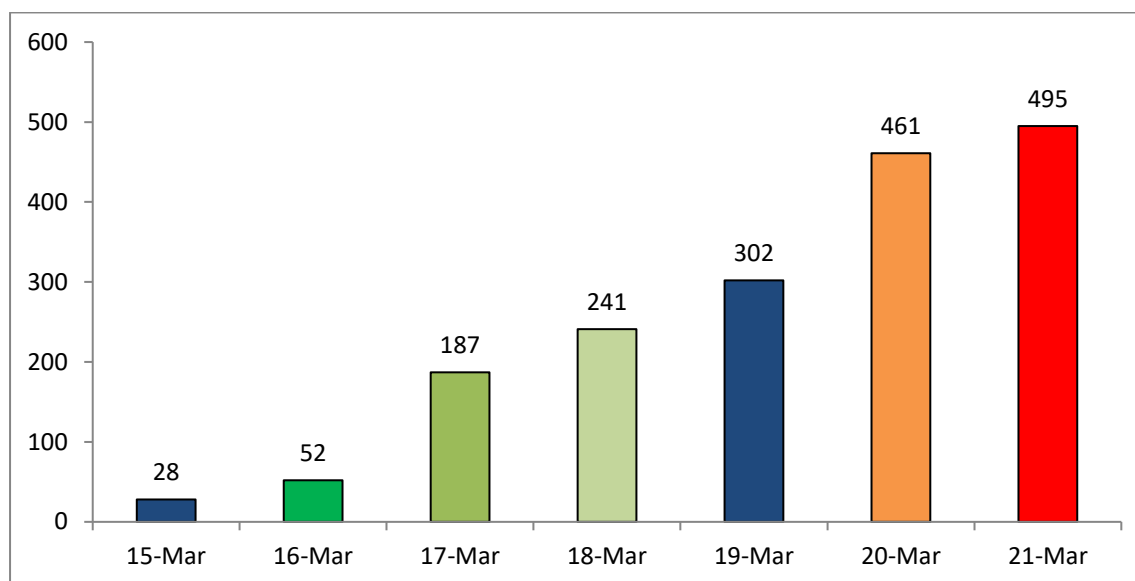


Figure 2. Showing confirmed reported cases in Pakistan from 15th March to 21st March 2020 World Health Organization) report.

Result and Discussion

COVID-19 around the World

Results of examined data revealed that the cases around the world are intensifying with very higher speed and spreading to various countries of the world (Figure.03). As on 15th March total cases in the world were 153517, (5735) deaths, 16th March 167515, (6606) deaths, 17th March 179111, (7426) deaths, 18th March 191127, (7807) deaths, 19th March 234073, (9840) deaths, 20th March 266073, (11183) and on 21st March the total cases were 292142, (12783) deaths. The obtained R square value by linear regression statistical tool was (0.99) which indicated that there is solid relationship among cases and deaths and both are unceasingly emerging with human losses (Table 02 & Fig 03).

COVID-19 in Pakistan

Scrutinized and observed data demonstrated that Pakistan is in higher risk of COVID-19 due to intra country traveling. The examined data of (Figure. 02) presented that the cases of covid-19 outburst are emerging from 15th March with (28) cases, 16 March (52), 17 March (187), 18 March (241), 19 March (302), 20 March (461) and on 21st March (495) cases were registered to WHO.

Covid-19 result for Pakistan that total number of cases is of March 21st, 2020 is 533, after returning of local and international passengers from china, Iran, Italy, and other affected Countries. Sindh with highest number 267 cases (50%), Baluchistan 104 (19.51%), Punjab 96 (18.01%), Khyber Pakhtoonkhwa 25 (4.69%), Gilgit Baltistan 30 (5.62%) Islamabad 10 (1.87%) and Azad Jammu Kashmir 01 (0.18%) (Table 01& Figure 01).

Table 2 Total No of Cases and Deaths of COVID-19 in the World

Date	Total cases	Total deaths
15-Mar	153517	5735
16-Mar	167515	6606
17-Mar	179111	7426
18-Mar	191127	7807
19-Mar	234073	9840
20-Mar	266073	11183
21-Mar	292142	12783

SUMMARY OUTPUT								
<i>Regression Statistics</i>								
Multiple R	0.997924167							
R Square	0.995852644							
Adjusted R Square	0.995023173							
Standard Error	181.4650152							
Observations	7							
ANOVA								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	39534801.96	39534801.96	1200.58731	3.76662E-07			
Residual	5	164647.7587	32929.55175					
Total	6	39699449.71						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-1527.798811	304.9705518	-5.00966012	0.004070925	-2311.750572	-743.8470502	-2311.750572	-743.8470502
X Variable 1	0.048582254	0.001402106	34.64949221	3.76662E-07	0.044978026	0.052186482	0.044978026	0.052186482

Figure 3. showing R square value of total cases and deaths around the world.

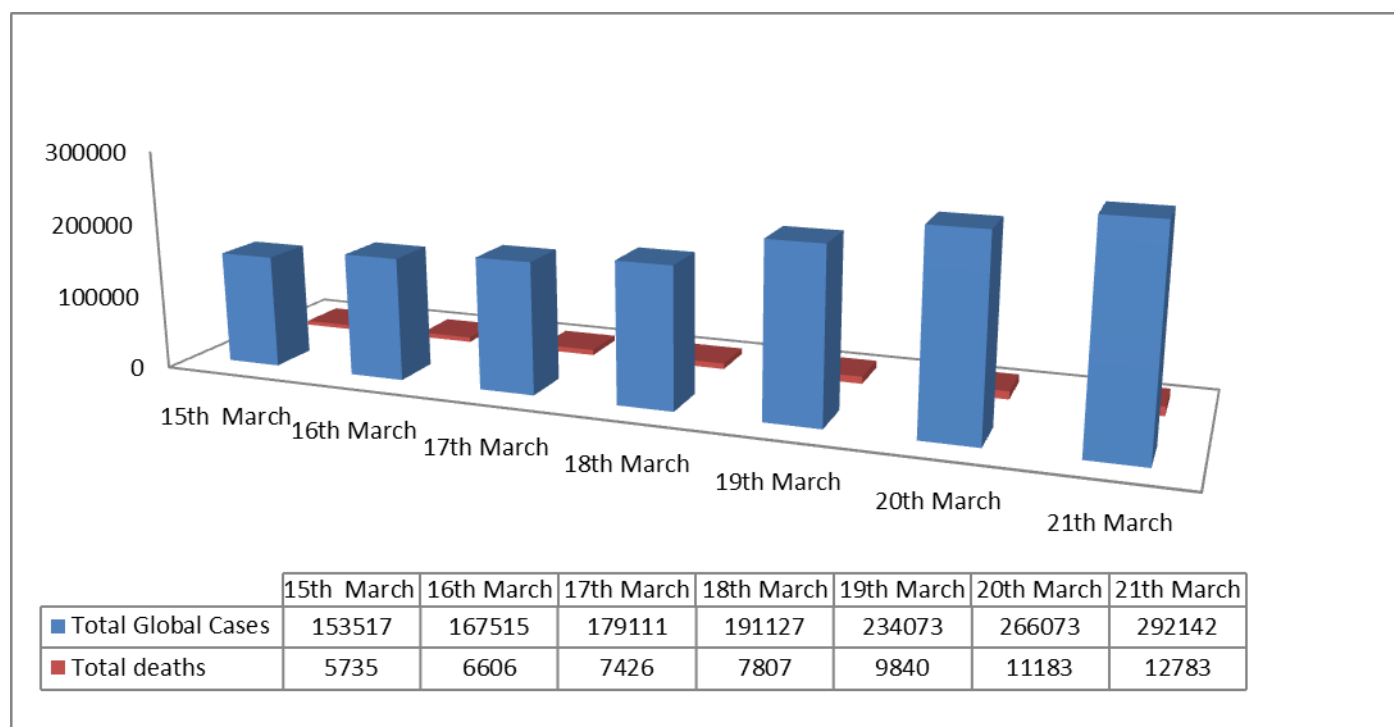


Figure 4. Showing total cases of COVID-19 and deaths around the world from period of 15th to 21st March, 2020.

Conclusion

COVID-19 is a contagious and fast spreading outbreak and escalating at very high speed in many countries since December, 2019. As on March 21st total 292142 cases with 12783 deaths from 190 countries around the world and 495 with 3 deaths in Pakistan were reported to WHO. And 533 cases from 4 provinces including Sindh, Baluchistan, Punjab, KP, Islamabad (capital territory), Gilgit Baltistan and Azad Jammu Kashmir were registered in daily situation report of COVID-19.

In Pakistan, after China and Iran this outbreak is a perplexing problem due to privation of medical and health care facilities. After country wide lockdown people are traveling to their destinations from various parts of the country. Our result displayed that day by day cases are aggrandizing with very high speed. People are facing many struggles after colossal lockdown. The author suggests that if these present and registered cases are restricted and treated well can decline this outbreak effectively. And the publics are directed to keep social and physical distance in infected regions, to stay home as much as possible and other cautionary measures as suggested by CDC [13]. Health department should establish well designed isolation units for restriction of the transmittable outbreak.

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Conflict of interest

The authors declare that they have no conflict of interest.

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