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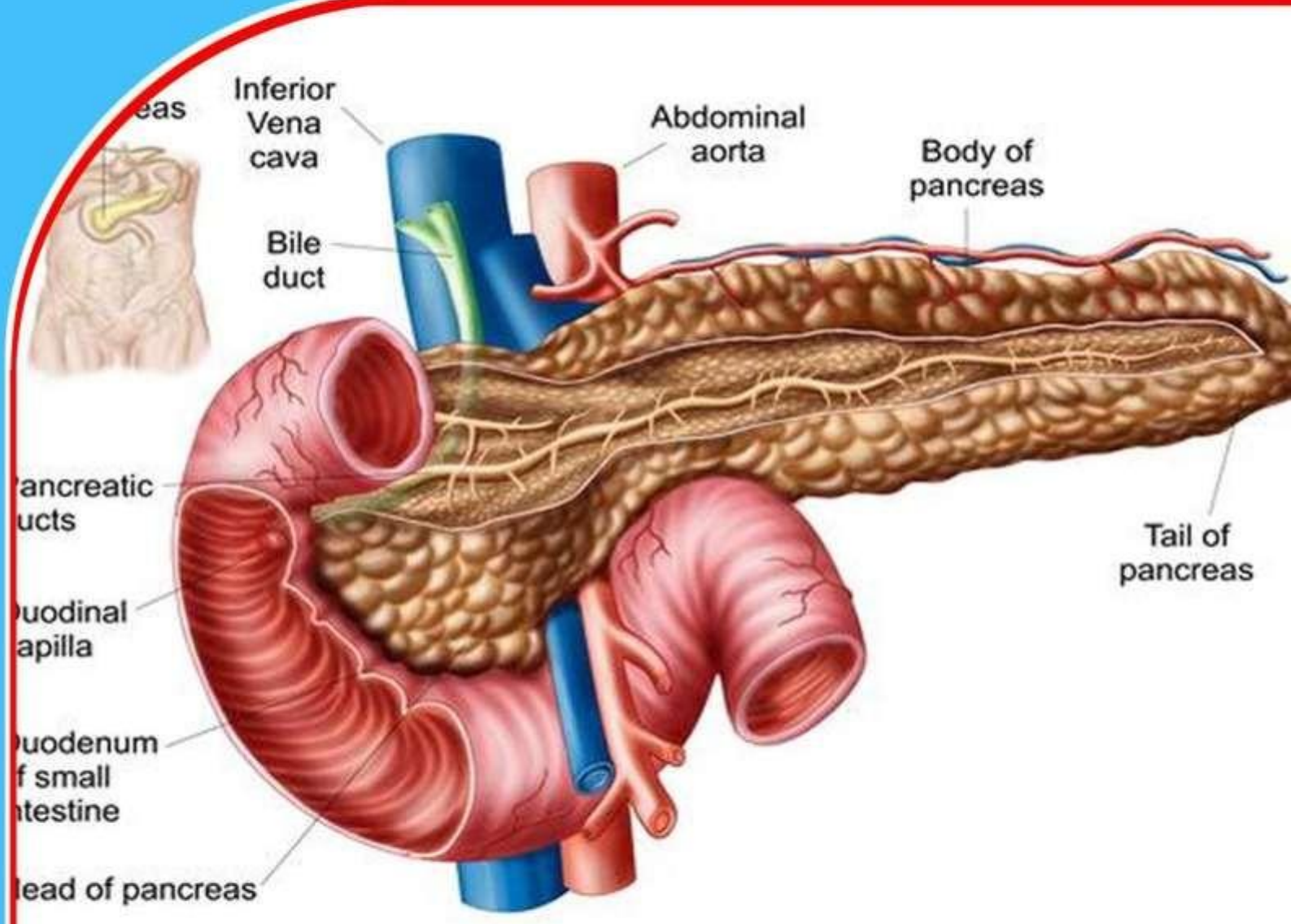

TRANSMISSION OF COVID-19 BY PASSENGER'S DESTINATIONS FROM IRAN, CHINA AND AFGHANISTAN: HIGHER RISKS OF NOVEL CORONAVIRUS INTO BALUCHISTAN, PAKISTAN

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TRANSMISSION OF COVID-19 BY PASSENGER'S DESTINATIONS FROM IRAN, CHINA AND AFGHANISTAN: HIGHER RISKS OF NOVEL CORONAVIRUS INTO BALUCHISTAN, PAKISTAN

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Abstract

Objective: The aim of this study research was to assess the risk of spreading of covid-19 through passenger and zahireen returning from Iran, china and Afghanistan through airports, seaports and land cross borders.

Methods: The data was obtained from provincial heath directorate government of Baluchistan and from Chinese health commission daily update website from the period of 28th February to 3rd March 2020.

Result: In February and March 2020 five (5) initial cases of COVID-19 are reported in passengers and zahireen (people go to Iran for pilgrimage) returned from China and Iran. Pakistan is at risk a rapid importation of novel coronavirus (Covid-19) due to huge land and air traffic with china, Iran and Afghanistan with their corresponding contaminated cities.

Conclusion: Pakistan being included in the countries, mostly dealing with Iran and china for many economic forums, without pre-controlled measure can lead to the quick equipped of novel coronavirus. It needs well develop health facilities to stop the rapid dispersion of this contagious disease.

Key words: *COVID-19, contagious disease. Zahireen, Taftan Risks in Pakistan.*

Introduction

Coronavirus was an alarming health hazard for all over the world due to rapid spreading rate in many countries occurred mainly in travelers moved to their destinations from major cities of china. Transmission was consistent in various territories with human to human contacts in different parts of the world. In December 2019, China had reported number of serious cases of COVID -19 from Wuhan city to world health organization [1]. The COVID-19 coronavirus is an extensive and continuing public health emergency of international concern comprising COVID-19 disease [3]. It is caused by SARS-CoV-2, first recognized in Hubei, Wuhan, China [4][5].As of 4 March 2020, more than 94170 cases have been confirmed, of which 6773 were classified as critical. [1][2] 80 countries and territories have been affected, with main occurrences in Central China, South Korea, Italy, and Iran[4]. More than 3,200 people have deceased: almost 2900 plus in mainland China and more than 220 in other countries [4]. More than 50,000 people have healthier recently [1].

COVID-19 belongs to family coronavidae of genus coronavirus. All coronavirus are pleomorphic crown-shaped RNA viruses about 80-160 nm and 27-32 kb positive polarity [6]. The spreading rate of all coronavirus is very higher due to continuous and errors in its RNA [7]. Due to high and rapid mutation rate, these viruses are considered as contagious and present in number of animals. But in humans with very huge range of clinical problems leading from low asymptomatic to hospitalization and finally to intensive units as result of causing disorders in respiratory system [8]. But other viruses of genus were not considered pathogenic to humans until individuals with severe acute respiratory syndrome (SARS) [9].

Epidemiological research identified Hunan fish markets as central location for coronavirus [10]. In the same days (January) Chinese center for diseases control and prevention identified this virus and named as 2019 –nCOV now called COVID-19. Chinese government banned the travel of people from the city to restrict the virus to neighboring locations [11, 12]. On March 4, 2020 there were 93191 confirmed cases of coronavirus-2019 in the world with 3203 deaths, 50984 recoveries [13]. The cases outside the china are continues the with very higher speed occurring mainly in travelers moved to their destinations from major cities of china the transmission is consistent in various territories with human contacts [14].

This contagious outbreak occurred in china near before new lunar year that is celebrating diversely all-around china [15]. In Pakistan five cases are confirmed, all infected individuals returned from Iran, and other countries no fatality has been reported yet [13].The objective of this study was to determine and estimate the risks of novel coronavirus 2019 transmission from Iran Afghanistan, china and other countries and to make preplanned decision to prevent it from more spreading in the country with its prime effect on Pakistan particularly in (Baluchistan).

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Table 1 Showing total no of cases in china, Iran, India Pakistan and Afghanistan with new cases, total deaths, new deaths, total recovered patients and serious cases on March 4, 2020

Country, Other	Total Cases	New Cases	Total Deaths	New Deaths	Active Cases	Total Recovered	Serious, Critical
China	80,282	131	2,981	38	27,380	49,921	6,416
Iran	2,336		77		1,824	435	
India	22	15			19	3	
Pakistan	5				5		
Afghanistan	1				1		
Total	82,646	146	3,058	38	29,229	50,359	6,416

Methods Data Collection

The data of total 70241 passengers and zahireen (people returning from Iran after visiting and worshiping holy places) returning to their destinations from china, Iran, Afghanistan and India through different entry points into country by airports, land cross boarders and sea ports was collected from provincial health department government of Baluchistan (daily situation report). And the data about covid-19 cases in Pakistan and neighboring countries was obtained from Chinese health commission daily update website from the period of 28th February to 3rd march 2020

Analysis of Data

The data was analyzed and tabulated by using Ms. Excel 2016. For current cases, new cases, deaths, recovered cases and critical cases in Pakistan and neighboring countries are present in (table 01). While number of passengers from the infected neighboring countries with their points of entries in Baluchistan Pakistan is arranged in (table 03).

Result

The modeled data of 70240 passengers at various entry points from china, Iran, Afghanistan and India exhibited that Pakistan particularly Baluchistan is at high risk of covid-19 importation from these countries due to huge number of human traffic for various purposes (Table 03). Table 02 showing total number of entries of screened passengers and zahireen from 28th February to 3rd March 2020. On 28th February total 340 travellers were screened in which 186 were quarantined and rests were released by noting their destinations points in case of emergence of coronavirus in future. On 29 February 709 people were screened in which 510 were quarantined. On 1st March, 2020 total 1016 people were screened 690 were quarantined. On March 2, 2020 total 317 passengers were screened among which

152 were quarantined. On March 3, 2020 total 454 people were screened and 100 were quarantined only 5 were shifted to Fatima Jinnah hospital Quetta 3 suspect cases were released with no symptoms after screening. According to data obtained from Chinese health commission website china is severely influenced by this outbreak followed by Iran, India and Pakistan with five initial cases reported till 3rd march 2020 in Pakistan with no deaths (table 01)&(Fig 01).

Table 2 Showing number of total screened for (covid-19) and quarantined patients

Date	Total Screened	Quarantine
28 Feb 2020	340	186
29 Feb 2020	709	510
01 Mar 2020	1016	690
02 Mar 2020	317	152
03 Mar 2020	454	100
Total	2836	1638

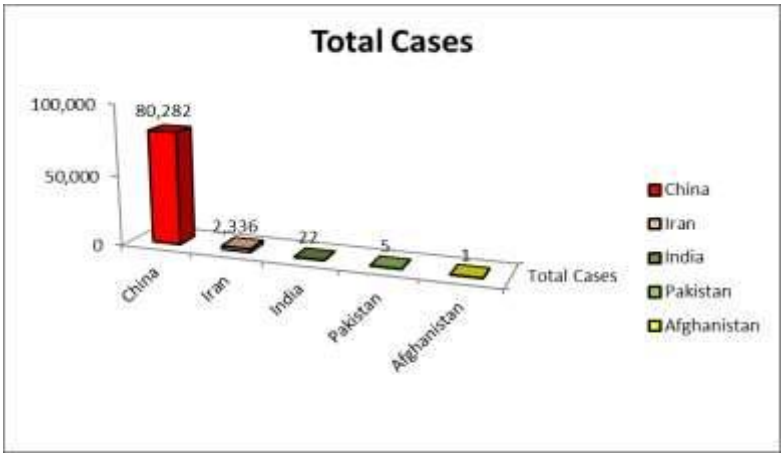

Figure 1. Showing total no of covid-19 cases in china, Iran, India, Afghanistan and Pakistan on March 4, 2020

Table 1 Showing of passengers from iran, chiana, aafganaistan and india

Points of Entries	**No of passengers**
Quetta Airport	4514
Turbat (Kech) Reedeg Cross Border	86
Turbat (Kech) Airport	599
Gwadar Gubd Cross Border	00
Gawadr Airport	18
Panjgoor Ground Cross Border	00
Taftan cross Border – Chagai	2947
Chaman Cross Border - Killabdullah	67012
Total	70241

Health care facilities

Total 24 (409 bed) designated hospitals, 5 diagnostic labs and only 3 quarantine facilities are available within Punjab, Sindh, Khyber Pakhtoonkhwa and Baluchistan of Pakistan to deal with cases of novel coronavirus. In each major city emergency isolation wards are established for treatment of coronavirus patients (Fig 02). Figure also showing points of entries (airports, land borders and sea ports) through which passengers enter into country.

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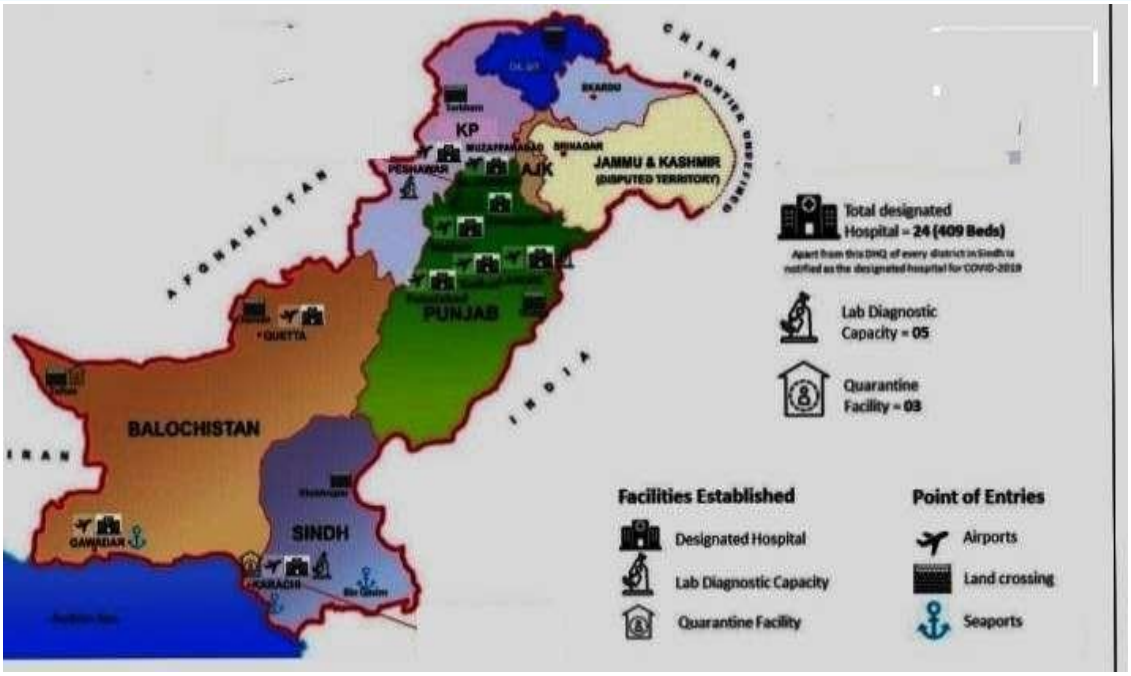

Figure 2 showing entry points of passengers from china, Iran, Afghanistan, and India with total designated hospitals, lab diagnostic capacity, and quarantine facilities in Pakistan.

Conclusion

Only five cases were reported in Pakistan on March 4, 2020. And so far, all cases have been diagnosed in people who have returned from Qom city of Iran, most of them pilgrims. The transmission risks of coronavirus are very high in Pakistan after china and Iran because each year huge number of pilgrims and businessmen from different parts of Pakistan travel Iran in January and February. On other hand, china has invested a whopping amount in different mega projects like Gawadar seaport and CPEC (china Pakistan economic corridor) with supervision of its engineers who could easily transmit the outbreak in the country and could cause both human and economic loss. So, to curb this pandemic, Pakistan established health care isolation unites for people infected with COVID -19 to restrict the Furthers transmission of this infection and also has locked its borders with Iran, china and Afghanistan to avoid the spread of virus effectively.

Recommendations

The author suggests that national and international agencies should provide better health facilities in the form of lab equipment's to diagnose and treat the contagious infection in various corners in the country before it become more viral. The health departments in the country should establish more the isolation and quarantine units for covid-19 outside the crowded cities and the citizens are also advised to avoid unnecessary travelling follow well hygienic life styles.

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