Letter to Editor - Impact of Age Factor in COVID-19 Infectivity in Population of Nowshera KP, Pakistan

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Dear Editor

COVID-19 (Corona virus disease) was first reported from metropolitan city, Wuhan, Hubei province of China in December 2019, and causes severe respiratory disease/ pneumonia. The etiology of COVID-19 is yet to be confirmed, but the majority of the scientists agree that it most likely originated from the zoonotic corona virus, SARS-CoV that emerged in 2002 (1).

Corona Virus disease termed as COVID-19, is an emerging highly contagious respiratory disease that is caused by novel corona virus. Its main clinical symptoms are fever, dry cough, fatigue, myalgia and dyspnea. Case fatality rate of 2.3% reported from China is lower than SARS(9.5%) , MERS (34.4%) and H7N9 (39%) (2).

Gender and age matters when there is talk about the prognosis and outcome of COVID-19. The New York Times has reported that corona virus is striking and felling more Italian males as compared to females in extreme of age because of their weak immunity status. They further elaborated that the Italian model of mortality is a trend mirror of what they observed in China with more casualties in the male gender and at extreme age (3).

To facilitate the healthcare workers working in COVID-19 clinics, management and administration of district Nowshera, of KP state of Pakistan to handle suspects, feel a dire need to give facts and figures on the impact of age factor and its correlation with 2019-nCoV infectivity, hence we followed some clinical studies.

In one of our interventions with 260 suspects screened in COVID-19 clinic an estimation of the risk exposure in age groups we observed that 165(63.46%) were in the age group 19-40 years of age, 40(15.38%) in 41-60 years of age, 36(13.86%) with age< 18 years and 19(7.3%) cases with age>60 years. We applied Chi-square test and a statistically significant difference was noted among the age groups (p=0.024).

Furthermore for the risk estimation in dichotomous age categories (age<50 years & age>50 years), it was observed that there was a higher relative risk of COVID-19 infection in patients with age>50 years (rr=2.4), as compared to age<50 years group (rr=0.7) respectively.

Table 1: Relationship of Ageing with PCR positivity

		Age categories			
		<18years	19-40years	41-60years	>60years
PCR Result	Negative	5	23	3	1
	Positive	3	8	3	4
	Awaited	1	9	2	0
	not done	27	124	32	14
	Inconclusive	0	1	0	0
Total(%)		36(13.86%)	165(63.46%)	40(15.38%)	19(7.3%)

Pearson Chi-Square	Value	df	Asymptotic Significance (2-sided)
	5.098[a]	1	0.024

A study from China reported 80% of the casualities (deaths) due to COVID-19 were in the adults aged>60 years as compared to 0.1% in persons aged <19 years (4). Similarly Italy is the second most affected country in the world, with more than 40,000 cases of SARS-CoV infection. They reported a higher mortality in aged people as compared to younger population that identifies an immunity gap (5).

Therefore it is suggested that special care should be given to suspects with higher risks like in age >50 years as they are more prone to get infected with 2019nCoV having compromised immunity due to age factor.

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