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ABSTRACT

COVID-19, caused by SARS Cov2 virus is a global pandemic and a threat to the world population and economy. It can manifest with a broad spectrum of clinical symptoms ranging from asymptomatic cases to pneumonia or even fatality. One of the treatments suggested is convalescent plasma therapy. The study aims at assessing the general awareness about Covid-19 and knowledge about the role of Convalescent plasma therapy for treatment of Covid-19 among post graduate dental students. The survey was conducted among post-graduate dental students through an online survey tool using google forms. The survey was conducted online among postgraduate dental students on the go with 19 and convalescent plasma therapy. A total of 103 participant were included in the study. The responses were collected, tabulated and analysed using SPSS software. The knowledge regarding covid-19 and the awareness about the usefulness of convalescent plasma was variable. Around 90% of the participants were aware of the effectiveness of convalescent plasma therapy. Advance training, proper PPE and training on handling the patients with any infectious disease should be dealt with in detail for reducing the spread from dental clinics and dentists.
was recommended as the production of endoge-
nous IgM and IgG Antibodies peaks at 2 to 4 weeks
after transfusion respectively (Cheng, 2005), (Luke,
2006). This led to a recommendation of conva-
lescent plasma therapy for Covid 19 but has to be
administered as early as possible. Convalescent
plasma therapy as a classic adaptive Therapy which
was used for the treatment of SARS, MERS, H1 N1
pandemic, which gave a satisfactory and efficient
result. There has been little evidence of the contri-
bution of viral disease in the pathogenesis of pulp
stones. (Swathy et al., 2015) The main aim of

Figure 1: Percentage of participants who agree
that COVID 19 is caused by SARS-CoV-2 virus.

Figure 2: Percentage of responses of various
symptoms of COVID 19.

Figure 3: The association of symptoms of COVID
19 and the participants aware of COVID 19.

Figure 4: The response of participants on the
incubation period of coronavirus.

Figure 5: Distribution of responses for groups
who are highly prone to COVID 19.

Figure 1, X axis represents whether the respondents
agreed or disagreed, Y axis represents the number
of responses. 98.1% of the participants accepted
that COVID-19 was caused by SARS-COV to virus and
1.9% disagreed.

Figure 2, 67.0% of the participants felt that the
symptoms of COVID was a combination of fever,
Cough and shortness of breath.
Figure 6: The percentage of participants who were aware about convalescent plasma therapy.

Figure 7: Frequency distribution of responses for the various pandemic diseases that are treated by convalescent plasma therapy.

Figure 8: The response of participants who agree that convalescent plasma therapy could be a vaccine for covid19.

Figure 9: The responses for the various groups who are ideal for convalescent plasma therapy.

Figure 10: The responses for the suitable group of patients to donate blood for convalescent plasmatherapy.

Figure 11: The responses X axis represents the participants aware of convalescent plasma therapy and Y axis represents the response of the suitable people to donate blood for convalescent plasma therapy.
The study aims at assessing the general awareness about Covid-19 and the effective role of Convalescent plasma therapy in Covid-19 treatment among post graduate dental students.

**MATERIALS AND METHODS**

A KAP survey was conducted online among Postgraduate dental students on the pathogenesis and convalescent plasma therapy for COVID-19. A total of 15 questions were included in the study. All the
questions was close-ended, and the question was conducted online. The survey was conducted to analyse the cause of COVID-19, symptoms, incubation time, recovery time and the people at higher risk. 10 questions were based on the above mentioned. The rest ten questions were based on convalescent plasma therapy, its application, suitable people to receive and donate blood and the attitude and practice towards the patients with a history of COVID-19 for dental treatment. The dependent variables used in the study are awareness knowledge attitude and perception and convalescent plasma therapy and COVID-19, and the independent variables are pathogenesis, convalescent plasma therapy. The data were analysed using SPSS software. The statistical test used to be percentage analysis, mean and standard deviation.

RESULTS AND DISCUSSION

Pneumonia associated with severe acute respiratory syndrome Coronavirus 2 (SARS-COV-2) named coronavirus disease 2019 (covid19) By WHO emerged in December 2019 from Wuhan, China. As this epidemic spread within three months WHO categorised it as a pandemic in March 2020. Even though the positive cases and the mortality are being increased day by day, no approved specific anti-viral agent is targeting the novel virus such as remdesivir, lopinavir, and ritonavir is an understudy for determining the efficacy and safety (Cheng, 2005), (Zhou et al., 2007), (Viveka, 2016), (Ko, 2018).

Convalescent plasma therapy as a standard adaptive immune therapy that has been applied for the prevention and treatment of other infectious diseases for more than one century. [for the past decade’s CP therapy has been successfully used for the treatment of say RS, MARS, H1 N1 2009 pandemic with satisfactory efficacy and safety (Sivaramakrishnan and Ramani, 2015), (Chen, 2020). Since the virology and clinical characteristics shared similarly among SARS, MERS, H1N1 and COVID-19, CP has been proposed as a treatment option for COVID-19 (Koh, 2020). Kai Duan et al. has suggested that the first endpoint for COVID-19 as safety for convalescent plasma transfusion and the second endpoint being the improvement of clinical symptoms and laboratory parameters within three days after CP transfusion. The exact pathogenesis of COVID-19 is under study, and there are several kinds of research on it. Other parameters like increased lymphocyte count, decrease C-reactive protein has been proved due to convalescent plasma therapy, thereby increasing the likelihood of individuals to recover. There was a radiological examination done which revealed that there are varying degrees of absorption in lesions within seven days (Koh, 2020).

A survey was conducted among postgraduate dental students, where 103 Participated in the study. The survey was conducted online, and 15 questions were included. In the study, 98.1% of the participants accepted that SARS-COV caused COVID-19 to the virus and 1.9% disagreed with that (Figure 1). There are several studies on the symptoms of COVID-19 (Zhou et al., 2007) describing the primary symptoms be cough and fever (Ding, 2020), (Koh, 2020), other symptoms of SARS, MERS, Covid 19 being myalgia, fatigue, dyspnea and anorexia (Lu, 2020), (Konukoğlu, 2020), (Wu, 2020). In our study, we observed that 67.0% of the participants felt that the symptoms of COVID were a combination of fever, cough and shortness of breath. (Figure 2). Association of symptoms of COVID 19 and the participants aware of COVID 19 where the p-value is 0.730. (p value=0.05) which is statistically not significant (Figure 3). The incubation period of COVID-19 was suggested to be 1-14 days by 55.3 % and 1 to 12.5 days by 35.9 % (Figure 4). In the study, 61.2 percentage agreed that elderly individuals, immuno compromised individuals, people with the systemic illness are at high risk, 19.4% strongly felt that only elderly individuals are at higher risk (Figure 5). The recovery period suggested by 51.6 % with 3 to 6 weeks, whereas 38.8% agreed that the recovery period was two weeks. We observe that 90.3 % of the participants were aware of convalescent plasma therapy, and correlation was done. (Figure 6).

In the present study, 90.3 % of participants are aware of convalescent plasma therapy. There are several studies on convalescent plasma therapy on SARS, MERS, H1N1. In our research, CP was suggested that treatment of SARS by 49.5%, MERS by 14.6 % and SARS, MERS and H1 N1 by 34% (Figure 7). This revealed that dentists are aware of the management of pandemic disease with the help of convalescent plasma therapy.

In the present study, 94.2% of the participants suggested convalescent plasma therapy be used as a vaccine before the incidence COVID 19 (Figure 8). Few authors conducted a study on convalescent plasma therapy and found that early stage of the disease is the ideal time for convalescent plasma therapy for most effective results (Cheng, 2005). In our study, we observed that 78.6 % of participants accepted that severe cases of COVID-19 are the ideal people to receive convalescent plasma therapy. In contrast, only 20.4 % accepted it to be in the
CONCLUSIONS

In this study, we found that postgraduate dental students have a varied knowledge of COVID-19, and most of them suggested that plasmatherapy is beneficial. Despite the spread and severity of COVID-19, most of them are willing to treat patients by providing palliative treatment by limiting the spread from dental clinics or hospitals.

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Conflict of Interest
Nil.

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