

Continuous Positive Airways Pressure (CPAP) Device. Use as Ventilator

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Objectives of the Study

To modify CPAP apparatus and use it as a ventilator in emergency as COVID-9. CPAP was practiced by me in 1982-85 in ICRC surgical hospital for the war wounded, Peshawar for severely ill patients. As the patient with chest injuries was having limitations of lungs expansion and oxygen acceptance. So post-operative cases were given CPAP 5 minutes each 2 hourly to maintain their oxygen level, expand lungs and the patients recovery was speedy and marvelous, the patients x-rays showed good lungs expansion in a day or two and the hospital stay was reduced. This would be practiced in chest conditions in surgical or medical units.

Discussion

While talking about Covid-19 where there is a shortage of ventilators and the patient needs good oxygenation, if we apply this on trial bases, we can manage this local device for experimental purposes or trial basis.

CPAP is widely used in sleeping apnea by chest physicians throughout the world and its portable small devices are available in the market advised by chest physicians for sleeping Apnea patients at night.

In recent days there is hot discussion of CPAP use and its conversion into ventilators in Covid-19, disaster among health experts. And even it is learnt Formula 1, German Mercedes Company and some universities have started work on it.

The experts have also observed that due to its mask there is risk of spread of coronavirus, it is very true, because the CPAP device availability with Nasal prong and from mouth exhalation or expiration phase. The droplets may spread virus, but in my opinion with little modification this limitation may be checked and make it safer. I discussed the same with Prof, Dr Arshad Javed Pulmonologist ViceChancellor, Khyber Medical University Peshawar and Prof, Dr Gohar Anesthetist and they agreed it may be helpful in Patients with short and Shallow breathing and may be considered in such a situation. For less needed patients means needs less support in emergency situations

Conclusion

I am optimistic about my design and along with a team of Pulmonologist, Anesthesiologist and Biomedical Engineers, we will succeed in making a simple smart ventilator for less dependent patients in any health care. Facility of ours for underdeveloped countries, cast ef-

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