Role of lignocaine in aerosol prevention during COVID-19: A new perspective

Dear Editor,

During the current coronavirus disease (COVID-19) pandemic, aerosolization while coughing by the COVID-19 patients is of significant concern, especially for anesthesiologists. Aerosols are the primary route of spreading this virus among health care professionals. Various techniques have been mentioned in the literature to minimize aerosol generation during the emergence from general anesthesia. However, these techniques, including mask over the tube technique,[1] using aerosol box,[2] or applying plastic drapes over the patient's face, while being beneficial, are time consuming and tiresome.

Administration of 4% lignocaine jelly for intracuff instillation during the perioperative period helps minimize aerosol generation, which could be of significant importance during this pandemic. The rationale for this is that the lignocaine diffuses across the cuff membrane and provides topical anesthesia to the tracheal mucosa, thus reducing tracheal irritation and avoiding coughing in the immediate postextubation period. As the aerosol generation is more during the extubation than intubation, using lignocaine is a valuable and straightforward technique to decrease the aerosolization and hence the spread of the virus.[3] Various lignocaine concentrations have earlier been described in the literature for endotracheal cuff instillation to prevent coughing during extubation. However, none of the studies describe the efficacy of this technique during the current pandemic.[4,5]

In addition to other precautions, namely, correct donning/doffing of the personal protective equipment, we recommend using 4% lignocaine for inflating endotracheal tube cuffs (instead of air). This would help in minimizing the spread of aerosols by decreasing the incidence of coughing during extubation. It will probably also provide the added benefit of reducing postextubation sore throat, pharyngitis, hoarseness, dysphagia, dysphonia, laryngospasm, and bronchospasm. In our opinion, routine intracuff instillation of 4% lignocaine is one of the simple, practical, and beneficial techniques of decreasing aerosol generation while extubating patients during this pandemic.

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Conflicts of interest
There are no conflicts of interest.

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