

the percentage of patients with $\text{tcpCO}_2 > 50$ mmHg was also higher (14.6% in the MF group vs. 65.0% in the MFP group). The MFP group also had a significantly longer oxygen use time (MF 0.0 min vs. MFP 25.0 min, $p < 0.01$). The addition of propofol increases the tolerability of bronchoscopy in difficult-to-sedate patients, but there are higher risks of ventilatory failure and hypoxemia. Thus, additional propofol should be used in combination with transcutaneous blood gas partial pressure monitoring.

P12-11 | Routine gargling before bronchoscopy for prevention of post-bronchoscopic infection

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Background and Aims: In a previous report, we demonstrated that indigenous bacteria in the oral cavity were the main causative microorganisms of post-bronchoscopic infection (Chest 2020; 158(2): 797-807). In the present study, we examined the preventive effect of gargling before bronchoscopy for post-bronchoscopic infection in patients who had undergone endobronchial ultrasound-guided transbronchial biopsy with a guide sheath (EBUS-GS-TBB).

Methods: Patients who were scheduled to undergo EBUS-GS-TBB had routinely performed gargling using benzethonium chloride before bronchoscopy at our hospital beginning in 2018. We compared the incidence rate of post-bronchoscopic infection and bacterial culture of the bronchial lavage fluid in patients who underwent EBUS-GS-TBB in 2017 and 2018 (before and after the introduction of routine gargling, respectively).

Results: Five patients (5/124, 4.0%) developed infectious complications in 2017 (before the introduction of gargling), and eight patients (8/125, 6.4%) developed infectious complications in 2018 (after the introduction of gargling). The positive rate of bacterial smears and culture of bronchial lavage fluid was 32.3% (40/124 patients) and 95.2% (118/124 patients), respectively, in 2017 (before gargling). In 2018 (after gargling), the smear-positive rate was 20.0% (25/125 patients) and the culture-positive rate was 95.2% (118/125 patients). The bacteria cultured from the bronchial lavage fluid were similar in both study periods.

Conclusions: The usefulness of routine gargling before bronchoscopy for prevention of infectious complications could not be confirmed in this trial. A further prospective study with adjustment of patients or background target lesions is needed.

P12-12 | Bronchoscopy with n-acetylcysteine lavage in a COVID-19 patient with massive grade IV inhalation injury

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Inhalation injury is associated with significant morbidity and mortality among thermally injured patients. Along with age and percent total body surface area (TBSA) involvement, inhalation injury is a significant predictor of death. We present a case of a 42 year old male who came in for burn injury involving 35% TBSA. RT PCR for SARS-COV-2 taken on admission was positive. Baseline chest radiograph showed no active lung parenchymal infiltrates. Arterial blood gas showed $\text{PaO}_2/\text{FiO}_2$ ratio of 232. Fiberoptic bronchoscopy (FOB) was done post-burn day 0 and revealed widespread plaque and soot formation with sloughed off mucosae in the trachea, carina and all bronchopulmonary segments. The severity of inhalation injury on the initial FOB was massive based on the Abbreviated Injury Score (AIS). Lavage with six vials of N-acetylcysteine (NAC) was done. Repeat FOB on post-burn day 1 showed markedly reduced adherent plaque and soot. Subsequent chest radiographs on post-burn day 1, 2 and 4 remained unremarkable. $\text{PaO}_2/\text{FiO}_2$ ratio were 160, 167 and 261 respectively. Patient however expired on post-burn day 6 from septic shock secondary to invasive burn wound infection. No relevant literature or evidence-based guidelines were identified regarding NAC instillation during bronchoscopy for inhalation injury. Whether NAC lavage in this patient with massive inhalation injury has prevented the development of acute respiratory distress syndrome (ARDS) and pneumonia is still controversial. Indeed, the value of this approach are to be questioned by authors but evidence to disprove this is still lacking. Our case report adds to the limited literature on this.



Figure 1. On the left is the image on bronchoscopy done post burn day 0 with widespread plaque formation and soot with sloughing off of mucosa from the trachea, carina and all bronchopulmonary segments. On the right is the repeat bronchoscopy done post burn day 1 showing markedly reduced plaque and soot. The previously visualized plaques on the carina and bilateral bronchi are no longer present. Noted however severe erythema on the carina and rest of bronchopulmonary segments.