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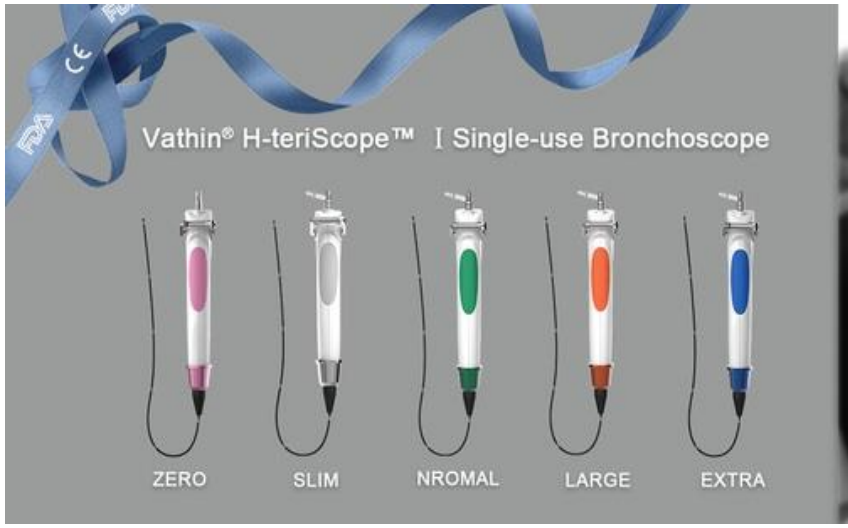
ΕΠΕΜΒΑΤΙΚΗΣ
ΠΝΕΥΜΟΝΟΛΟΓΙΑΣ

SUFB - ΒΑΣΙΚΕΣ ΕΝΔΕΙΞΕΙΣ



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Flexible bronchoscopy

Diagnostic uses include:

- **BAL**
- **Brushings**
- **Lung biopsies**

Therapeutic uses include:

- **Aspiration of mucoid or hemorrhagic secretions**
- **Endobronchial valve placement**
- **Thermal ablative therapy**
- **Cryotherapy**
- **Tumor debulking**
- **Foreign body retrieval**
- **Airway stent deployment**
- **Guidance for percutaneous tracheostomy placement**
- **Fiducial marker placement prior to lung resection**

In the setting of the ongoing COVID-19 pulmonary societies have released guidelines regarding uses for SUFB given the concern for risk of viral transmission when using reusable flexible bronchoscopes (RFB)

- Chinese Medical Association
- American Association for Bronchology, Interventional Pulmonology
- Spanish Society of Pneumology and Thoracic Surgery
- Argentinean Association for Bronchology

There are no specific recommendations from these or other societies regarding the optimal type of equipment for patients without known or suspected SARS-CoV-2 infection during the pandemic

Advantages of SUFB

- Theoretically offer complete sterility as compared with RFB
- More cost-effective than RFB use in the intensive care unit and bronchoscopy suite
- Portable and usually easy to access. They do not require endoscopy staff to move and set up the bronchoscopy tower and scopes, allowing for immediate availability
- Advantage of being used “out of hours” and outside of the bronchoscopy suite
- Bronchoscopic training and research
- Reduce the potential incidence of RFB damage, thus increasing RFB availability

Advantages of RFB

- Maneuverability, handling, deflection, image quality, and adequate channel size for passing of instruments
- Advanced diagnostic bronchoscopic procedures, such as mediastinal staging
- Therapeutic bronchoscopic procedures such as airway stenting, cryotherapy, ablative therapy, valve placement for persistent air leak and bronchial lung volume reduction, and bronchial thermoplasty
- Better image quality, maneuverability, suction, and medical record integration than SUFB
- RFB are still used for advanced diagnostic procedures such as mediastinal staging and guided bronchoscopic procedures during the pandemic. SUFB may not yet be suitable for more advanced diagnostic and therapeutic procedures until further advancements in the technology are developed

SUFB Use for Pulmonary Procedures

- Bronchoscopic procedures such as simple airway inspection and bronchoalveolar lavage
- Recent studies which evaluated the feasibility, safety, navigation success, and diagnostic yield in sampling pulmonary lesions using the Monarch and Ion robotic navigational systems, used bronchoscopes that technically speaking are single use disposable devices that are compatible with their respective platforms. Although these robotic bronchoscopes are not handheld devices, the use of these single use disposable scopes suggest that there may be a role for conventional SUFB in advanced diagnostic procedures as well

SUFB Use in the ICU

- Intubation
- Therapeutic aspiration, BAL
- Foreign body removal
- Percutaneous tracheostomy placement
- Massive hemoptysis.
- Airway Management

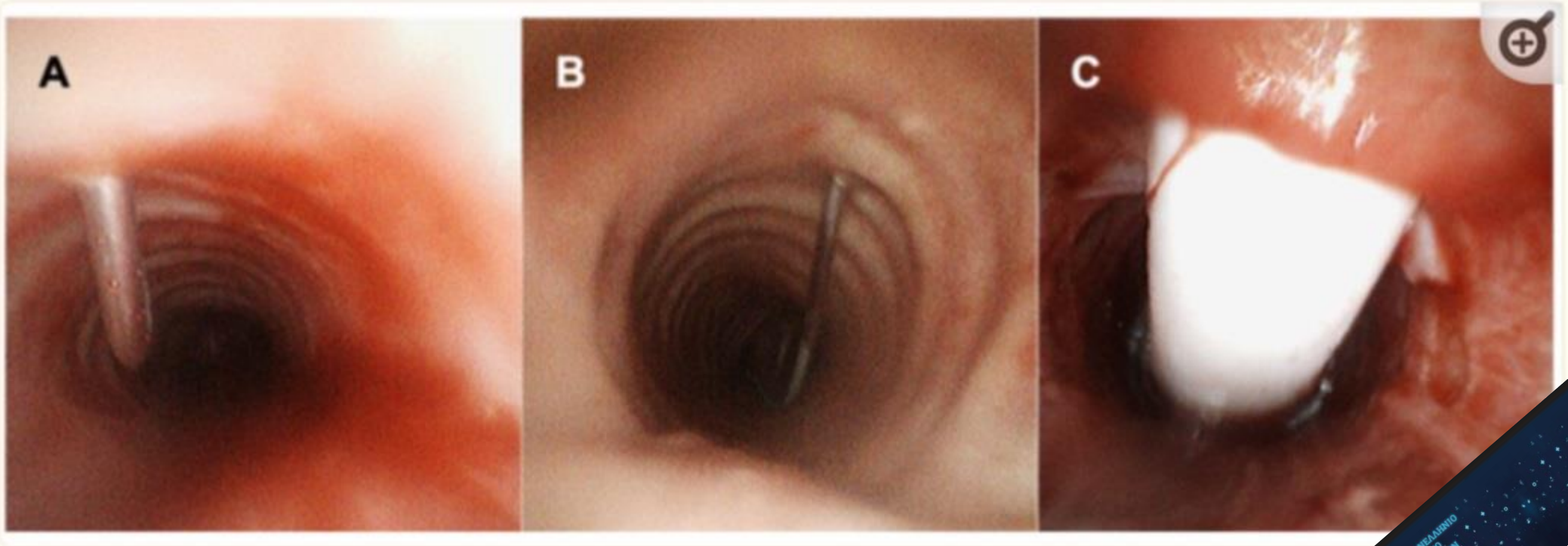

Figure 2

Using SUFB for Percutaneous Tracheostomy Tube Placement. This figure illustrates tracheostomy placement using the SUFB (EXALT Model B Single-Use Bronchoscope from Boston Scientific). Needle insertion (**A**), passing of the guidewire (**B**), and placement of the tracheostomy tube (**C**) are visualized.