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# A reliable alternative of fiberoptic bronchoscope in unanticipated difficult airway: Flexible fiberoptic cystoscope

Muhammad Sohaib

*Aga Khan University*, [muhammad.sohaib@aku.edu](mailto:muhammad.sohaib@aku.edu)

Khalid Maudood Siddiqui

*Aga Khan University*, [khalid.siddiqui@aku.edu](mailto:khalid.siddiqui@aku.edu)

Muhammad Faisal Khan

*Aga Khan University*, [mfaisal.khan@aku.edu](mailto:mfaisal.khan@aku.edu)

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## A reliable alternative of fiberoptic bronchoscope in unanticipated difficult airway: Flexible fiberoptic cystoscope

Sir,

We would like to share a promising result of flexible fiberoptic cystoscope in unanticipated difficult airway when we had no choice of using flexible fiberoptic bronchoscope, the most popular device in anesthesia practice due to its malfunction. It was an adult male patient planned for elective cardiopulmonary bypass grafting surgery. The patient was anesthetized with etomidate, fentanyl, and atracurium. Bag-mask ventilation was carried out for 3 min and then laryngoscopy was performed. On laryngoscopy, epiglottis was not visible. Three attempts were made by a senior anesthesiologist with direct laryngoscopy for tracheal intubation but failed. The patient had a great concern of ischemic heart disease with poor ejection fraction. Hence, further direct laryngoscopy was not warranted. Laryngeal mask airway (LMA) was inserted. On LMA, the patient was ventilated with mixture of isoflurane, nitrous oxide, and oxygen with no difficulty. At the moment we planned to secure the airway through fiberoptic bronchoscope, unfortunately, it was found to be out of order.

Therefore, we decided to attempt the endotracheal intubation with flexible fiberoptic cystoscope. Previously, it has been used for the airway management.<sup>[1]</sup> The fiberoptic cystoscope is always readily available in urology theater, and our cardiac operating room is in the vicinity of urology theater. Hence, with the help of flexible fiberoptic cystoscope, we pass guidewire through LMA and then railroaded the endotracheal tube over it. The patient was successfully

intubated with endotracheal tube size of 8.0 mm ID with the help of fiberoptic cystoscope while the patient was still anesthetized. The patient remained hemodynamically stable throughout the procedure without any episode of hypoxia.

The flexible endoscope used in these instances was the Karlz Storz-Endoskope 11272 C which features deflection of distal tip from 140° to 210°, angle of view 110°, working length 37 cm, and sheath size 15.5 Fr. Its high-resolution optics with a wide angle lens system and an angulation system that allows easy orientation and detailed observation. Its main specifications suggest that it can be easily adopted to perform flexible laryngoscopy and tracheal intubation in most adults.

There is a case series reporting the use of flexible fiberoptic cystoscope for tracheal intubation in anticipated difficult airway.<sup>[1]</sup> In our reported case, it has been used in a scenario of unanticipated difficult airway while the situation had turned to be semiemergent. Flexible cystoscope can be an appropriate alternative in an extreme situation where flexible fiberoptic is unavailable due to many other reasons. Flexible cystoscopes are readily available in the urology operation theater for different procedures and can be recruited as an aid for difficult intubation. The limitation with this device in comparison to bronchoscope is relatively small field of vision and rough images. It can be of great help in the hospitals where there are no fiberoptic bronchoscope available and caught in difficult airway scenario.<sup>[2]</sup>

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### Conflicts of interest

There are no conflicts of interest.

**MUHAMMAD SOHAIB, KHALID MAUDOOD SIDDIQUI,  
MUHAMMAD FAISAL KHAN**

Department of Anaesthesiology, Aga Khan University, Karachi,  
Pakistan

#### Address for correspondence:

Dr. Khalid Maudood Siddiqui,  
Department of Anaesthesia, Aga Khan University Hospital,  
Stadium Road, P.O. Box 3500,  
Karachi 74800, Pakistan.  
E-mail: [khalid.siddiqui@aku.edu](mailto:khalid.siddiqui@aku.edu)

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