Introduction

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The fundamental responsibility of an anesthesiologist is to maintain adequate gas exchange. Failure to maintain a patent airway for more than few minutes results in brain damage or death *(Bellhouse, 1987)*.

The anatomy of the upper airway is of ultimate importance for successful mask ventilation, intubation, cricothyrotomy and regional anesthesia of the larynx *(Ellis and Feldman, 1993)*.

Traditional airway management devices are still central to the practice of anesthesia. They include face masks, airways, endotracheal tubes and laryngoscopes *(Dorsch et al., 1999)*.

The laryngeal mask airway (LMA) was developed by British anesthesiologist *Dr. Archie Brain*. There are different types f LMA including standard LMA, flexible LMA, intubating LMA, double lumen LMA, double cuff LMA and gastrolaryngeal LMA (proseal laryngeal mask) *(Patel P et al., 2000)*.

The combitube is a disposable supraglottic airway device that can provide an emergency airway when conventional means are not effective or possible *(Rabitsch et al., 2004)*.

Laryngeal tube A new developed, multi-use, latex-free, single-lumen silicon tube with oropharyngeal and esophageal low-pressure cuffs, a ventilation outlet in between and a blind distal tip *(Agrof et al., 2002)*.

The cuffed oropharyngeal airway (COPA) was invented by Greenberg in 1990. it consists of a guedel type oropharyngeal airway with a cuff attached to the distal part. It is designed for use in anesthetized patient who are breathing spontaneously when facemask ventilation has proved to be difficult ***(Audu and Loomba, 2004)***.

A flexible fiberoptic bronchoscope is the most useful general purpose aid to awake intubation in the patient with a known difficult airway. If there is a possibility that intubation and/or ventilation by mask will be difficult, then the airway should be secured ***(Hagberg and Westhofen, 2003)***.

Diagnosis of difficult airway depends on careful history taking and preoperative examination and size of the tongue and pharyngeal structures visible on mouth class 1 soft palate anterior and posterior tonsillar pillars and uvula visible, class 2 tonsillar pillars pillars and base of soft palate not visible. ***(Miller, 2000)***.

This study was suggested to update and focus on the majority of these new airway devices and their clinical applications.