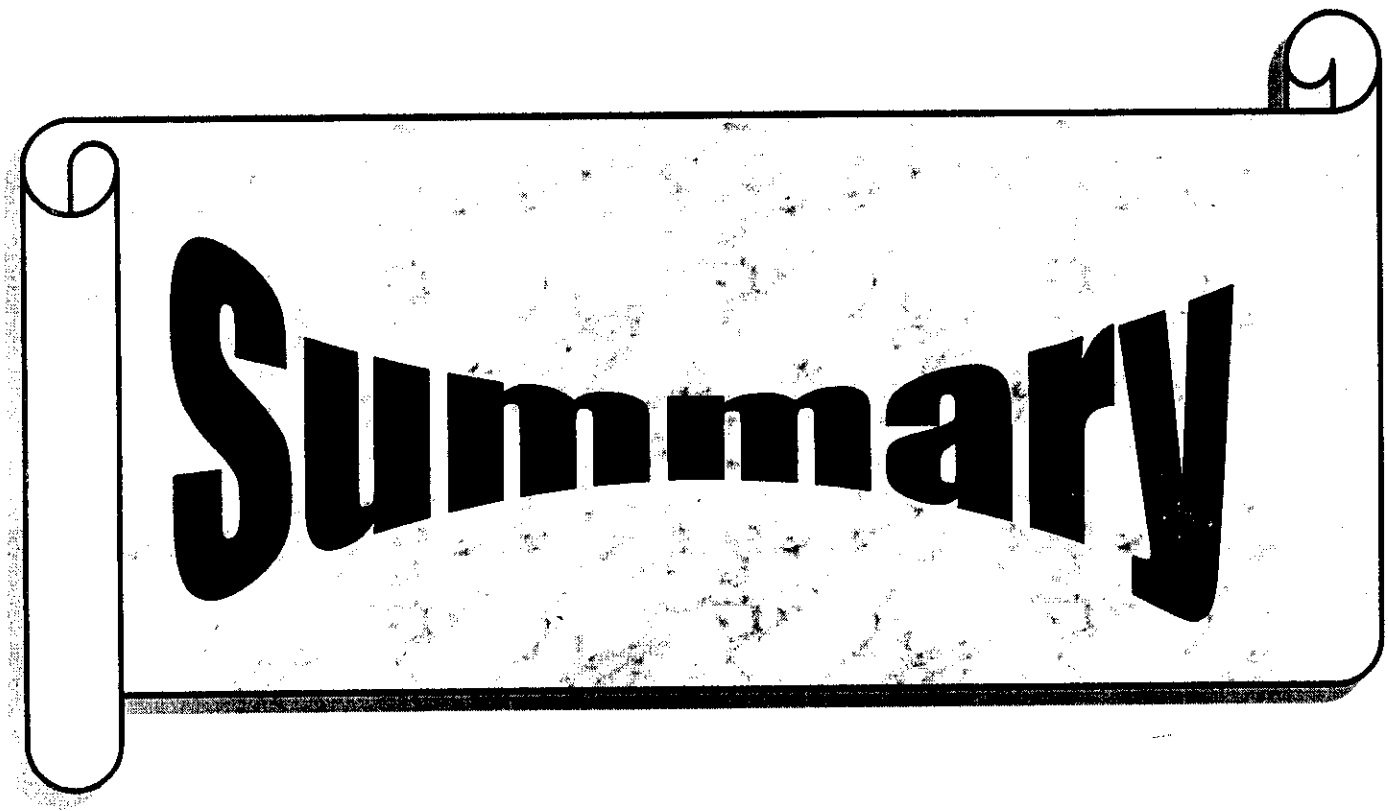
Summary

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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.

The aim of this work is to focus on the majority of theses new airway devices and their clinical applications.

The anatomy of the upper airway is of ultimate importance for successful mask ventilation, intubation, cricothyrotomy and regional anesthesia of the larynx.

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

The laryngeal mask airway (LMA) is single most important development in airway devices in the past 20 years. It was developed by British anesthesiologist Dr. Archie Brain. Since its introduction into clinical practice in 1988, it has been used in more than 100 million patients world wide and its clinical applications have greatly expanded to benefit virtually every subspecialty of anesthesia.

The combitube is a disposable supraglottic airway device that can provide an emergency airway when conventional means are not effective or possible.

The laryngeal tube a newly developed, multi-use, single-lumen tube with an oropharyngeal and esophageal low pressure cuff and a ventilation outlet between those cuffs.

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.

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.

Diagnosis of difficult airway depends on careful history taking and preoperative examination.

If there is a possibility that intubation and/or ventilation by mask will be difficult, then the airway should be secured while the patient is still awake.

Choices for an awake intubation inlcduing rigid laryngoscopy, blind orotracheal or nasotracheal technique, fiberoptic/stylet technique, illuminating stylet and semirigid stylet were discussed.

If the patient is already anesthetized and/or paralyzed and intubation is found to be difficult, it may be best to awaken the patient or do the case by mask ventilation or do semielective tracheostomy or circothyrotomy when indicated and/or when other methods to provide oxygenation and ventilation fail.