ANESTHETIC CONSIDERATIONS OF RARE THORACIC SURGERY CASES

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Anesthesia for thoracic surgery is challenging. The challenges in thoracic anesthesia represented in the perioperative management. These challenges require proper preoperative preparation of the patient in order to tolerate one lung ventilation besides adequate knowledge and skills in using different tools of one lung isolation and careful postoperative management.

Preoperative preparation and recognition of patient at risk of thoracotomy and possible lobectomy or pneumonectomy is one of the challenges. Those require interpretation of pulmonary function tests and careful reading of preoperative chest-x ray and CT scan of the lungs. Also during the preoperative visit a clear anesthetic plan should be formulated along with discussing the anticipated problems with the patient and surgeon. Again premedication and instructions for preoperative chest physiotherapy, if required, are essential part of preoperative preparation. Nevertheless, oxygen by face mask during transfer of the patient to OR should be instructed when required.

Intraoperatively, induction of anesthesia and endobronchial intubation to secure lung separation as well as maintenance of anesthesia without hypoxia during OLV presents another challenge. Skills on the use of different tools for lung isolation should be mastered by the anesthetist. Currently there are many tools in common use to deflate the lung during thoracic anesthesia. Besides double lumen tubes the following tools have been added to the armamentarium of thoracic anesthesia, namely: torque control blocker Univent tube (TCBU) (Fuji, Japan), wire endobronchial blocker (Arndt blocker) (Cook, USA), tip deflecting endobronchial blocker (Cohen blocker) (Cook, USA), Fuji
uniblocker and most recently left sided silicon double lumen tube with reinforced endobronchial portion (Silbronch) (Fuji, Japan). In addition, the use of FOB to check the tube or blocker position is of paramount importance. Initiation of a dialogue between the surgeon and anesthetist during the procedure is very important and should be encouraged. Usually the dialogue will start on whether the lobe or the lung is deflated or not. Therefore the anesthetist has to master the physiology and pharmacology of OLV. Also the anesthetist has to be familiar with different modes of ventilation during OLV with special attention of the use of pressure controlled ventilation as well as technique of thoracic epidural analgesia for intra and postoperative analgesia.

Postoperatively, special attention should be made toward different regimens of post-thoracotomy pain relief, like conventional use of narcotic analgesics, PCA, NSAIDs, TEA, interpleural analgesia or paravertebral block. Even after you take care of the above issues, in some cases you will be confronted with rare cases with no previous established management plan which require immediate thinking and decision making. In this presentation we are going to describe different scenarios of some rare cases which we actually have faced with elaboration on the anesthetic management with possible recommendations to be used in subsequent similar cases.

This presentation will be an Interactive module, which means your sharing in the discussion during the presentation will be allowed and appreciated.