ANESTHETIC CONSIDERATION FOR BILATERAL LOBAR LUNG TRANSPLANTATION

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Introduction
Lung transplantation is the most advanced treatment option introduced recently in Egypt for patients with end-stage lung disease who failed to respond to conventional medical therapy. The decision to transplant one or both lungs depend upon the extent of disease and the results of pre-transplant pulmonary testing.

Living Donors selection criteria
Potential Lung Transplantation Candidate
Anesthetic consideration
Consider strict sterilization techniques
Anesthesia design
Both Donors are subjected to: Left lower lobectomy
Recipient management
Pneumonectomy of the diseased lungs
Hemodynamic Monitoring
BIS monitoring to Depth of anesthesia is required
The role of inhaled Nitric oxide in lung transplant surgery
the Use of Cardio-pulmonary is indicated in bilateral lung diseases femeroatrial cardiopulmonary bypass with membranous oxygenators..
Lung preservation techniques
• The graft lung flushed by iced preservative solution (cellsior UW ) containing mainly potassium solution to inhibit metabolic activity of the cells
• The bronchus is manually ventilated by ETT 4.0 I.D by Ambo Bag

Immunosuppressive medication
• most common of these agents are steroids, cyclosporin A (CyA), and azathioprine
• Steroids broadly suppress T- and B-cell clonal expansion, cytokine production, and neutrophil activation.
• Generally, the calcineurin inhibitor Cy A interferes with discrete T- and B-cell functions, and
• azathioprine inhibits nucleotide synthesis.

Conclusion
• Successful lung transplant surgery depends mainly on
• well trained experienced specialized team.
• Anesthiologist should consider Optimum anesthesia care, hemodynamic monitoring to assess right ventricular functions and cardiac filling pressure
• Early extubation to prevent barotraumas and ventilator related infection.
References
