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### Coronary by-pass surgery in patients with previous pneumonectomy

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**Introduction:** Severe pulmonary dysfunction is a commonly occurring postoperative complication following cardiac surgery. Resection of a lung causes major anatomical and physiological changes. Shift of the mediastinum and reduction in respiratory function following pneumonectomy makes cardiac surgery challenging not only for the surgeon but also for the anaesthetist. The reported experience is sparse for patients with prior pneumonectomy who are undergoing surgery for ischemic or valvular heart disease. We report a case of cardiac surgery following pneumonectomy to highlight certain important features that we think are important while managing these patients.

**Case Presentation:** The patient was a 56-year male who had undergone extra-pericardial pneumonectomy 30 years earlier for tuberculosis of the left lung. Echocardiography showed a left ventricular function of 50%. His coronary angiogram revealed severe triple vessel disease. Preoperative spirometry showed FVC 1.94 L (52% of predicted), FEV1 1.3 L (48% of predicted), FEV1/FVC ratio 70%. The pre-operative workup of this patient included computerized tomography of the chest to assess distortion of intra-thoracic anatomy. In an attempt to improve the pulmonary function this patient was admitted 10 days prior to surgery for intensive chest physiotherapy and incentive spirometry. He underwent coronary artery bypass grafting (CABG) using cardiopulmonary bypass and antegrade cold blood cardioplegia. Internal thoracic artery was used to graft left anterior descending artery (LAD), saphenous vein (SVG) was used to graft posterolateral branch of the right coronary artery, first diagonal and first obtuse marginal arteries. Access to arteries in the circumflex region was difficult due to shift of heart to the left side. The patient was weaned from the ventilator 14 hours after and CPAP helmet was immediately applied for a period of 48 hours continuously. After on it was applied at intervals for 5 days. The subsequent recovery was slow but progressive and the patient was discharged on the 11th postoperative day in good conditions.

**Conclusion:** We conclude that with attention to the specific features of the preoperative, intraoperative, and postoperative management, open heart procedures can be performed successfully on patients after pneumonectomy.

#### Biography

Andi Kacani has more than 17 years of experience as a cardiologist and is affiliated with Mother Teresa University Hospital Centre. Dr. Andi Kacani's passion is Cardiovascular surgery.

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