

폐이식의 적응증 및 술기

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RECIPIENT SELECTION GUIDELINES: GENERAL PRINCIPLES

Clinically and physiologically severe disease
Medical therapy ineffective or unavailable
Substantial limitation in activities of daily living
Limited life expectancy
Adequate cardiac function without significant coronary artery disease
Ambulatory with rehabilitation potential
Acceptable nutritional status
Satisfactory psychosocial profile and emotional support system

RECIPIENT SELECTION GUIDELINES: INDICATIONS

Acceptable diagnoses; modest experience with transplantation

Chronic obstructive pulmonary disease
Antitrypsin-deficiency emphysema
Cystic fibrosis
Idiopathic pulmonary fibrosis
Primary pulmonary hypertension
Eisenmenger's syndrome (with atrial or ventricular septal defect)

Controversial diagnoses; limited experience with transplantation

Systemic diseases with pulmonary involvement (e.g., connective tissue diseases, sarcoidosis)
Occupational lung diseases
Thromboembolic pulmonary hypertension (not amenable to thrombo-endarterectomy)
Interstitial lung disease secondary to chemotherapy or radiation therapy (previous neoplasm cured)

Unacceptable diagnoses, transplantation generally contraindicated

Primary carcinoma of the lung
Metastatic carcinoma of the lung
Uncured extrapulmonary neoplasm

RECIPIENT SELECTION GUIDELINES : CONTRAINDICATIONS TO LUNG TRANSPLANTATION

Active pulmonary or extrapulmonary infection
Systemic disease with nonpulmonary vital organ involvement
Significant coronary artery disease or left ventricular

dysfunction

Irreversible nonpulmonary vital organ dysfunction, especially liver, kidney, and CNS

Current cigarette smoking

Current high-dose systemic corticosteroid therapy

Significant psychosocial problems, drug or alcohol abuse, or history of noncompliance with medical management

cardiac defects

Preparations for transplantation

Monitoring ; SaO₂, ETCO₂, BP, SVO₂, BT, Paw

Double lumen endobronchial tube

Echocardiographic probe to esophagus

Single lung transplantation

Less perfused lung

Fifth interpace

Observe for pulmonary hypertension, low cardiac output,

right heart failure, arterial desaturation, hypercarbia

Phrenic and vagus nerve saved

Minimal proximal disruption of bronchus

PA and LA mobilized completely

PA : transected with a superior to inferior taper avoid excessive length

LA : deep clamp may jeopardize circumflex coronary artery, encourage endothelial to endothelial contact

Anastomoses order : bronchus, atrium then pulmonary artery

Assess PA and LA anastomosis by TEE

DONOR MANAGEMENT

General management

Eliminate systemic hypertension

Inotropic agents

Depressed thyroid function

Hypothermia

Hypokalemia

Specific measure to the lung

NG drainage

Tracheobronchial toilet

Triphylactic antibiotics

Periodic check of ABGA, X-ray

SURGICAL TECHNIQUE

Type of Transplantation

Single lung : old age, risky patient,

Double lung ; young age, infections process,

Heart-lung ; Eisenmenger's syndrome with irreparable

Double lung transplantation

Thoracotomy : bilateral costosternal thoracotomy

Less functioning lung removed first

Administer calcium before reperfusion

PEEP to the newly implanted first lung

Cardiopulmonary bypass

