

Kalp - Akciger Transplantasyonu Bir Hayal mi ?

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U.S. Food and Drug Administration.

Cyclosporin A, for heart-transplant patients, but not for other transplant patients.

Stanford Univ: waited and waited.

Mary Gohlke, 45-year-old dying of primary pulmonary hypertension called the former boss, the executive editor of the Mesa Tribune, to help.

U.S. Sen. Dennis DeConcini, D-Arizona, and about an hour later the FDA approved the drug for use in heart-lung transplantation at all qualified hospitals.

On March 9, 1981,

Stanford Hospital operating room for a heart-lung transplant

Gohlke, the first patient in the world to undergo a successful heart-lung transplant — and lived for five years with her new organs.

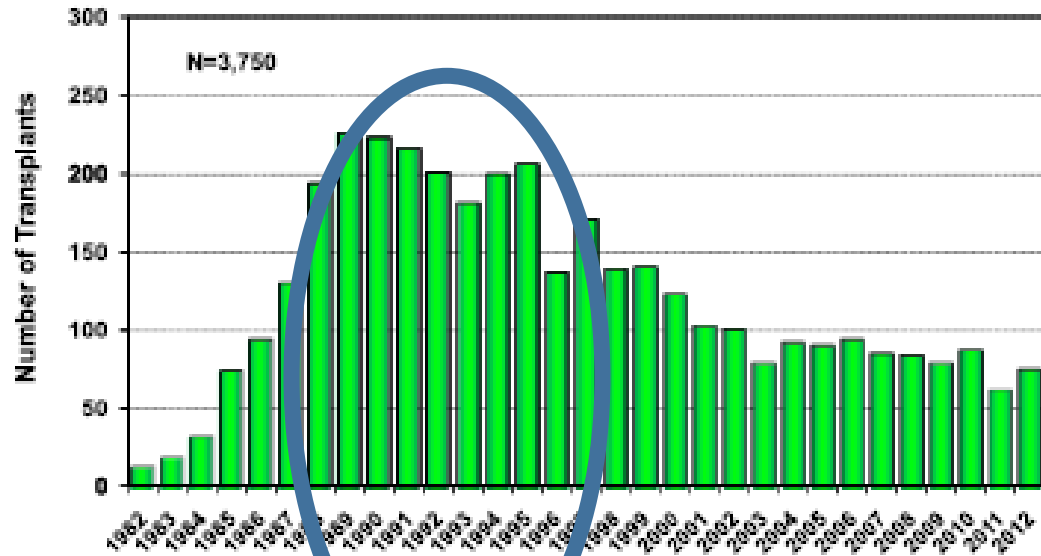


Figure 23 Number of adult heart-lung transplants by year (transplants: 1982 to 2012)

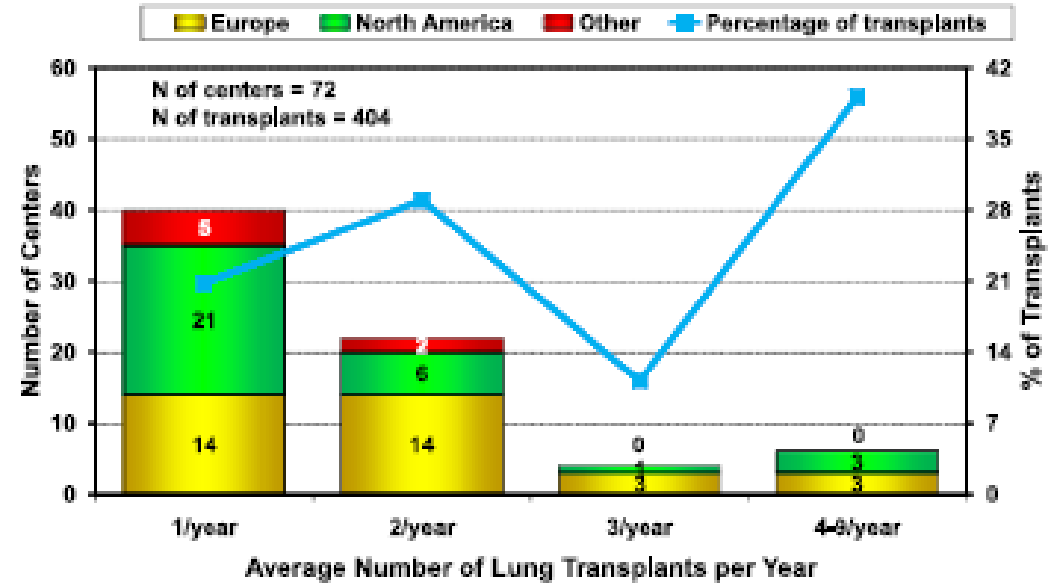


Figure 24 Number of adult heart-lung transplants by center volume (transplants: January 2008 to June 2013).

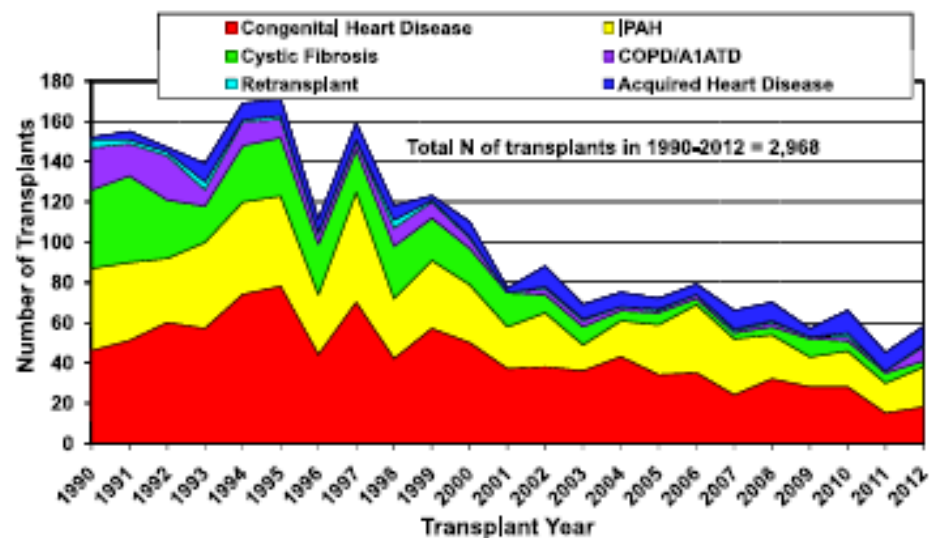


Figure 26 Adult heart-lung transplantation according to indication and year of transplantation (transplants: 1990 to 2012). CF, cystic fibrosis; COPD, chronic obstructive pulmonary disease (COPD) not associated with α_1 -antitrypsin deficiency (A1ATD); A1ATD, COPD associated with A1ATD; IPAH, idiopathic pulmonary arterial hypertension.

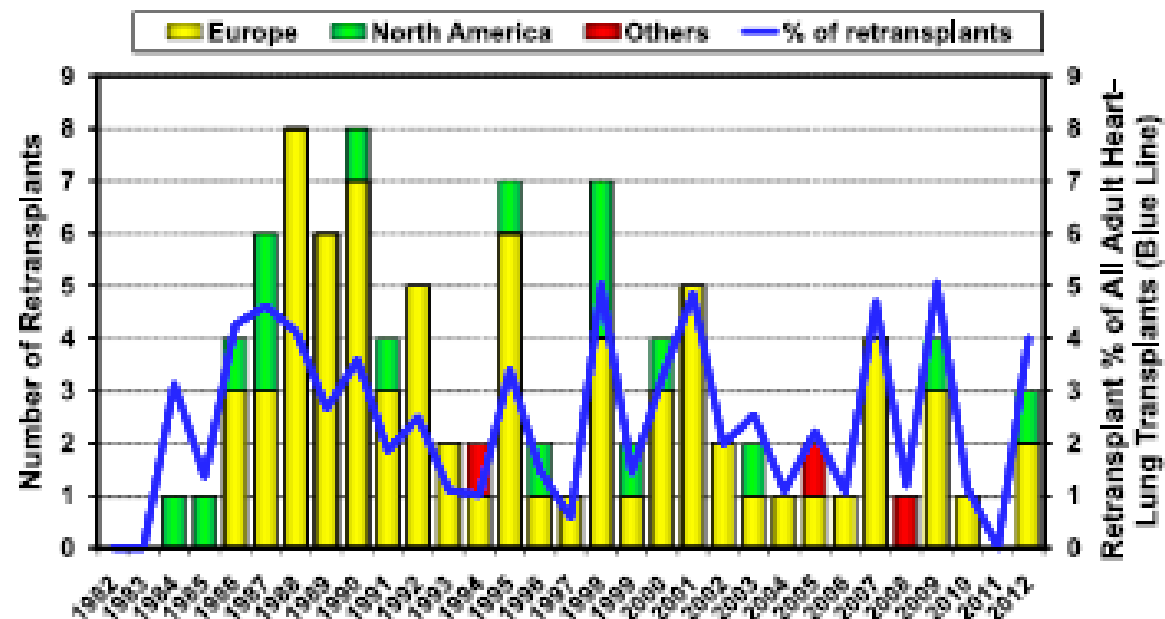


Figure 25 Number of adult heart-lung retransplants by year and geographic location (retransplants: 1982 to 2012).

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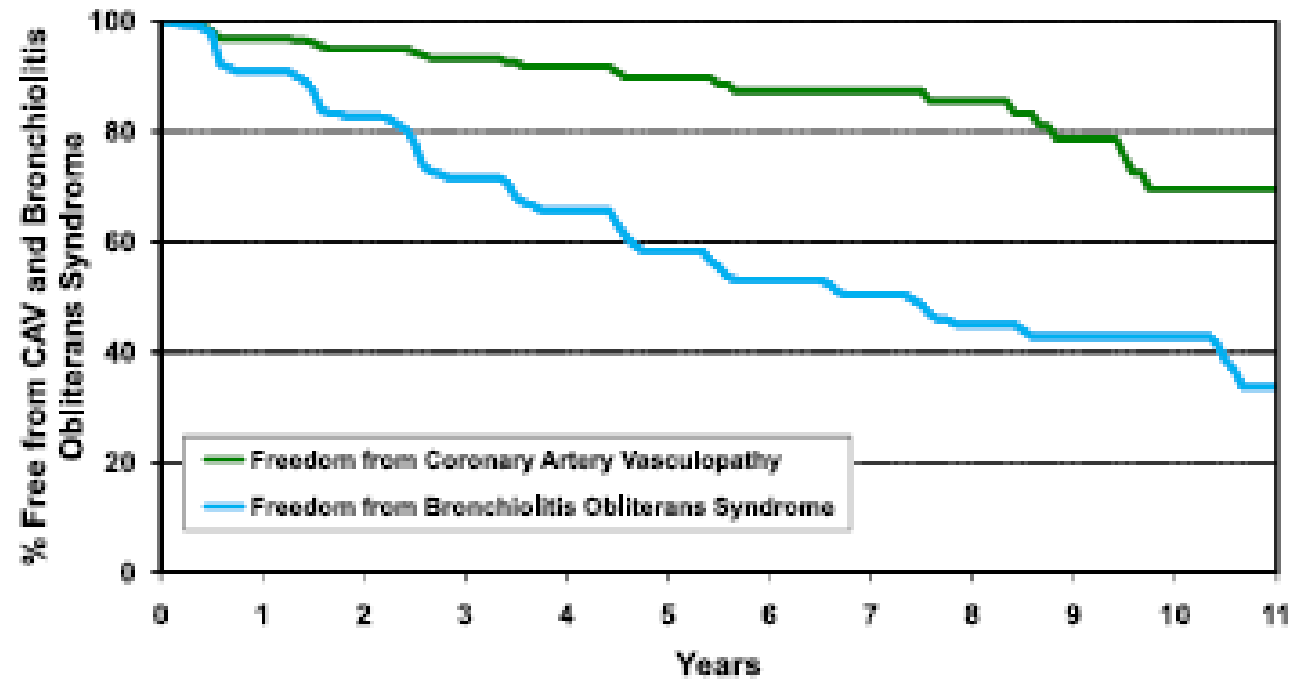
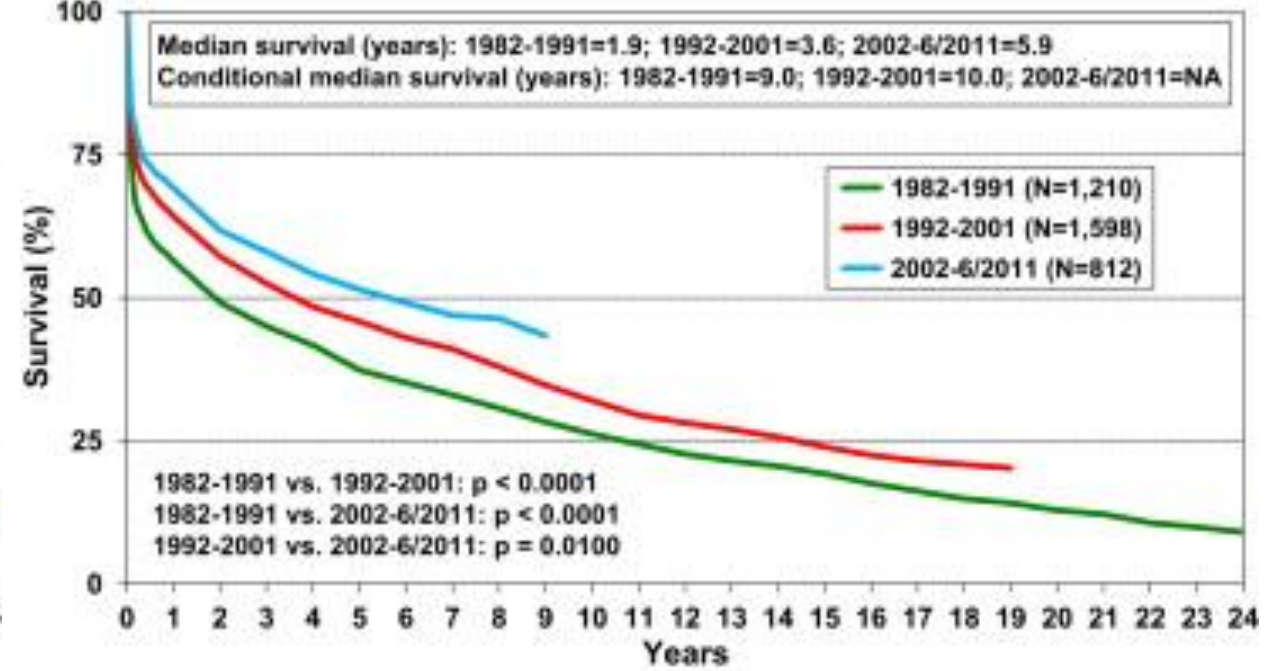
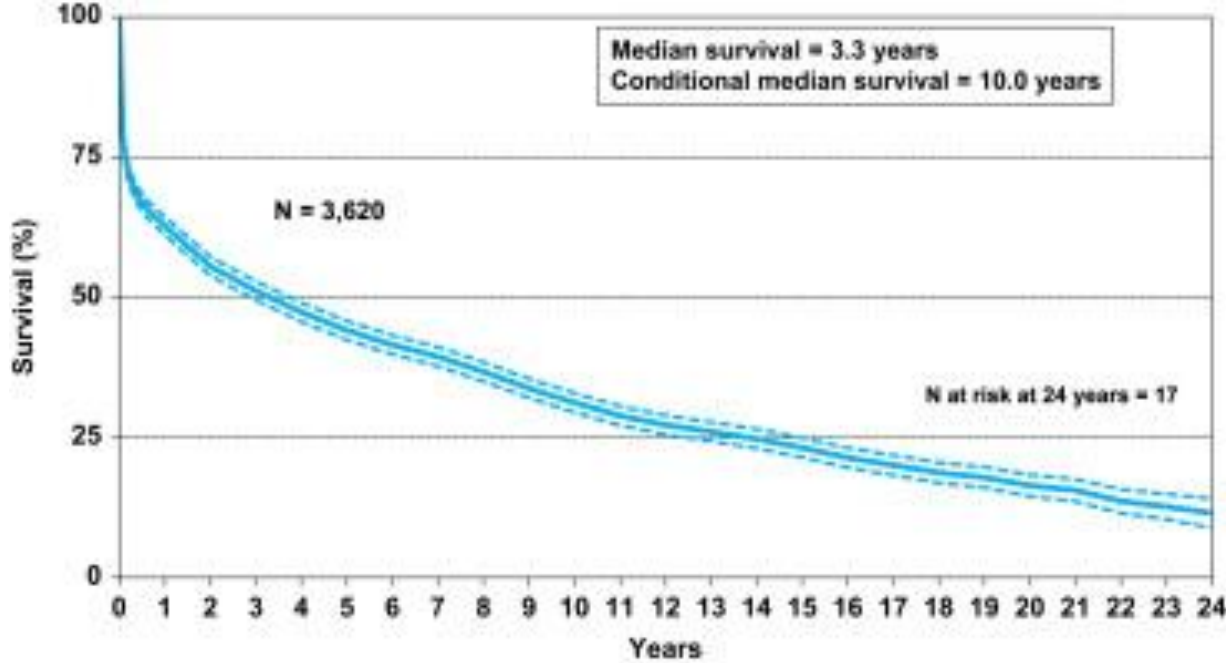


Figure 30 Adult heart–lung transplant freedom from coronary artery vasculopathy and bronchiolitis obliterans syndrome (adult heart–lung follow-ups: April 1994 to June 2013).

Bu azalma neden oldu 2



- Heart-lung transplant recipients
- 71% 3 ay,
- 63% 1 yıl,
- 51% 3 yıl,
- 44% 5 yıl
- 31% 10 yıl.
- İlk yılı aşabilen hastalarda median survival 10.0 yıl

2002 den sonra genel sonuçlar daha iyi

The Registry of the International Society for Heart and Lung Transplantation: Thirty-first Adult Lung and Heart–Lung Transplant Report—2014;
Focus Theme: Retransplantation



Primary diagnosis ^a	Number (%)
Cardiovascular	
Congenital heart disease	1,178 (35.5%)
IPAH ^b	907 (27.4%)
Acquired heart disease	180 (5.4%)
Bronchiectasis	
CF ^c	459 (13.9%)
Bronchiectasis not associated with CF	30 (0.9%)
COPD	
COPD not associated with A1ATD	141 (4.3%)
COPD associated with A1ATD	62 (1.9%)
Diffuse parenchymal lung disease	
IPF ^d	121 (3.7%)
Allograft failure after primary heart–lung transplantation ^e	
Heart–lung retransplant: not OB/ BOS	32 (1.0%)
Heart–lung retransplant: OB/BOS	24 (0.7%)
Miscellaneous	
Sarcoidosis	54 (1.6%)
OB (not retransplant)	25 (0.8%)
Other	101 (3.0%)

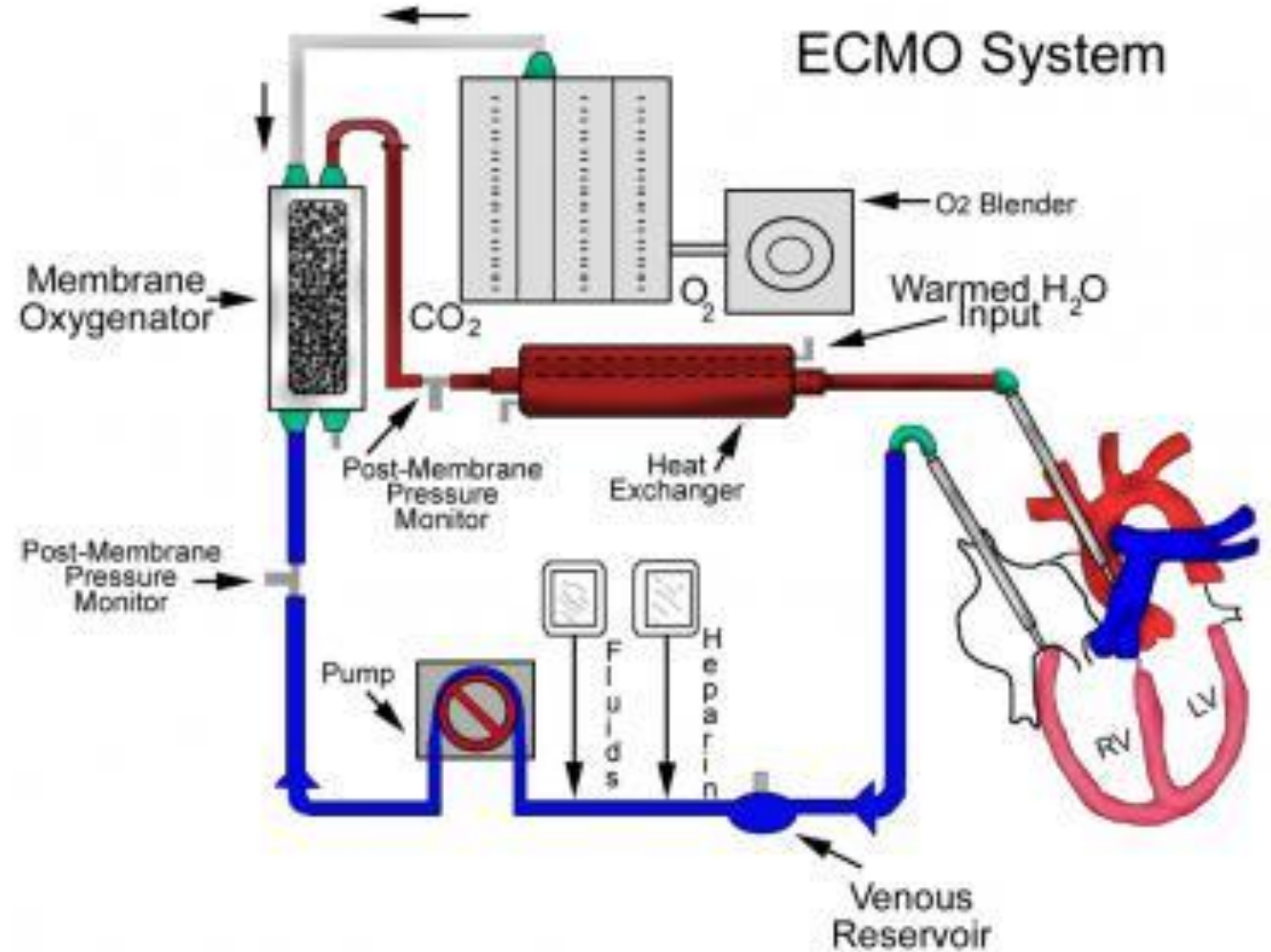
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Retransplantasyon

- Kalp Akciğer retransplantasyonu sonrasında : 96-96 (%100)
- Akciğer transplantasyonu sonrasında : 108-1949 (%5.5)
- Kalp transplantasyonu sonrasında 8-3125 (% 0.3)

ECMO

- ***Outcome of Extracorporeal Membrane Oxygenation as a Bridge To Lung Transplantation: An Institutional Experience and Literature Review.***
- ***[Inci I](#), [Klinzing S](#), [Schneiter D](#), [Schuepbach RA](#), [Kestenholz P](#), [Hillinger S](#), [Benden C](#), [Maggiolini M](#), [Weder W](#). *Transplantation.* 2015 Aug;99(8):1667-71.***



Akciğer Naklinde Perioperative Süreç

- IV epoprostenol, IV adenosine,
- Prostanoid, inhale iloprost,
- Endotelin antagonist
- Phosphodiesterase inhibitör
- NO, inhale NO, Arginine

Endikasyonlar

- **Düzeltilemez konjenital kardiyak anomaliler (Pulmoner arter diffüz atrezi veya hipoplazi ve progresif kalp yetmezliği)**
- **Eisenmenger Sendromu ve düzeltilmemiş konjenital defekt**
- **Kalbin veya akciğerin primer yetmezliğine bağlı ciddi kardiyopulmoner hastalık**
- **Sol ventrikül disfonksiyonuyla beraber ciddi kalp yetmezliğine vazodilatatör tedaviye yanıtız pulmoner hipertansiyon**

Heart Lung Transplant Survivors

Table 8 Cumulative Morbidity Rates in Adult Heart–Lung Transplant Survivors^a (Follow-ups: April 1994 to June 2013)

Outcome	Within 1 year	Total with known response (<i>n</i>)	Within 5 years	Total with known response (<i>n</i>)
Hypertension	59.6%	433	88.1%	151
Renal dysfunction	18.8%	489	45.5%	189
Abnormal creatinine ≤ 2.5 mg/dl	11.7%		31.7%	
Creatinine >2.5 mg/dl	3.1%		10.6%	
Chronic dialysis	3.9%		2.1%	
Renal transplant	0.2%		1.1%	
Hyperlipidemia	26.7%	453	70.0%	160
Diabetes	18.5%	496	28.5%	186
Coronary artery vasculopathy	2.8%	394	8.2%	97
Bronchiolitis obliterans syndrome	8.1%	458	28.7%	157

^aPercentage of adult heart–lung transplant (primary transplant and retransplant recipients) survivors with known responses who experienced various morbidities as reported on the annual follow-up forms through 1 and 5 years post-transplant. For the 5-year rates, to reduce bias, the table only includes data from survivors who had responses reported for every follow-up through the 5-year annual follow-up.

History of Lung Transplantation

Akciğer Transplantasyonu Tarihiçesi

Gül Dabak

Unit of Pulmonology, Kartal Kosuyolu Yüksek İhtisas Teaching Hospital for Cardiovascular Diseases and Surgery, İstanbul

Solunum 2013; 15(2):82-87

Attempts of heart-lung and lung transplantation in Turkey

The first pediatric heart-lung transplant patient was operated on by Oztekin Oto at Dokuz Eylül University Hospital in 1998. Six heart-lung transplants have been carried out in Turkey up to now, but none of the patients survived for long periods. Rather than scientific literature, my actual knowledge depends on personal communication with cardiovascular transplant centers within the country. Only the first patient is reported to have lived for nine months (8,9).

In 2008 an Eisenmenger patient received a heart-lung transplant at Ege University and this patient is said to have lived for a few months.

In 2012 another patient with heart failure and high pulmonary vascular resistance received a heart-lung transplant at Istanbul Kartal Kosuyolu Yuksek İhtisas Teaching Hospital for Cardiovascular Diseases and Surgery, mainly recognized as a cardiac transplant hospital and a leading center in Turkey with over 100 cardiac transplants since 1989. The operation was performed by cardiovascular and thoracic teams guided by Mehmet Balkanay and Cemal Asım Kutlu. Unfortunately the patient did not survive the early posttransplant phase due to disseminated intravascular coagulopathy (DIC) and ensuing multiorgan failure.

SONUÇ

- Donör Organ Dağılımında daha fazla hastaya organ sağlama
- Rejeksiyon ihtimali olan organ fazlalığı (BOS-CAV)
- Bir yıllık süreçte ve perioperatif mortalite ve morbidite yüksekliği
- Kalp transplantasyonu ve akciğer transplantasyonunda giderek artan perioperatif ve postperatif başarı oranları
- Yine de Kalp - Akciğer Nakli endikasyonu ve gerekliliği vardır. Belli tecrübeye ulaşmış merkezlerin uygun hastalarda bu transplantasyonu kullanmaları ülkemiz için gereklidir.