

# Интервентна Кардиологија

ЈЗУ Универзитетска Клиника За  
Кардиологија

UCLA Los Angeles 01.10.2013-  
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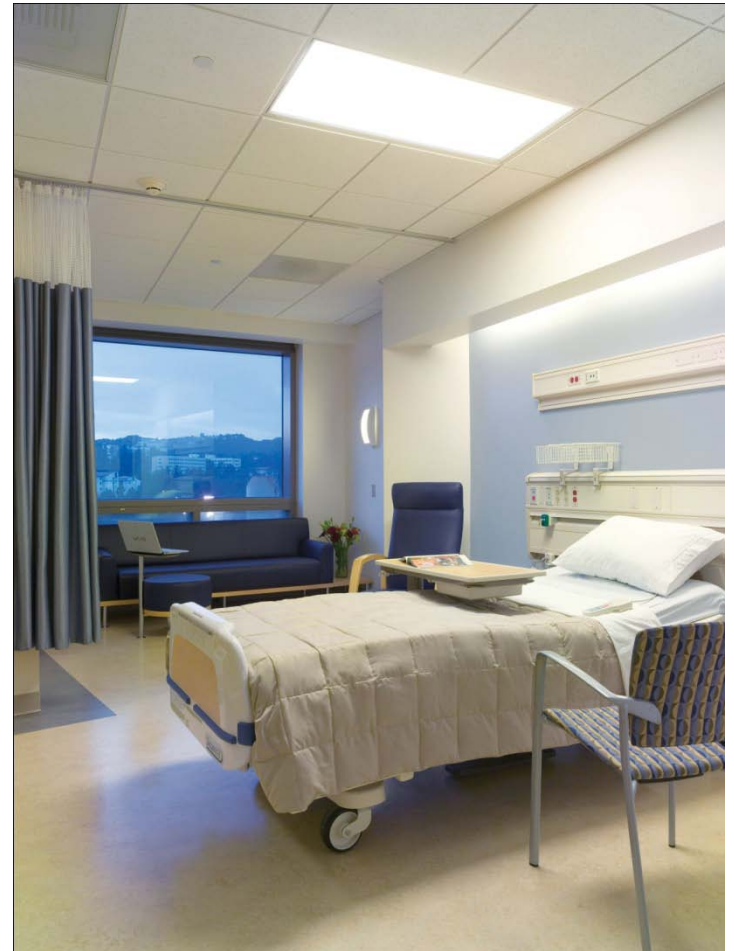
# UCLA 2013



# Ronald Reagan UCLA Medical Center



- 700 болнички легла
- 2000 трансплантации на срце
- проекти за трансплантација на лице и раце



# The UCLA Interventional Cardiology Program provides the following services:

- **Coronary**

- Diagnostic cardiac catheterization ,angiography and coronary intervention
- Coronary angioplasty (PTCA) and coronary shunting
- Rotational atherectomy (Rotablator) and laser atherectomy
- Fractional flow reserve measurement with pressure wire
- Intravascular coronary imaging with intravascular ultrasound (IVUS), optical coherence tomography (OCT), and near infrared spectroscopy (NIRS)
- Endomyocardial biopsy
- Coil embolization
- Stem cell therapy for patients with angina not amenable for revascularization
- Acetylcholine provocative testing for diagnosing PRINZMETAL angina
- Thrombolytic therapy of acute and chronic coronary thrombosis

- **Structural**

- Mitral and Aortic Valvuloplasty (PTAV/PTMV)
- Closure of Patent Foramen Ovale (PFO)
- Closure of Atrial Septal Defects (ASD)
- Closure of Ventricular Septal Defect (VSD)
- Closure of patent Ductus and Arteriosus
- Percutaneous closure of paravalvular leak
- Stenting of Aortic Coarctation
- Hypertrophic Cardiomyopathy (HOCM) treatment with Alcohol Septal Ablation
- Transcatheter Aortic Valve Replacement (TAVR) with Edwards SAPIEN valve
- Transcatheter pulmonary valve implementation with Medtronic Melody valve
- Left Atrial Appendage Closure with LARIAT system

- **Peripheral**

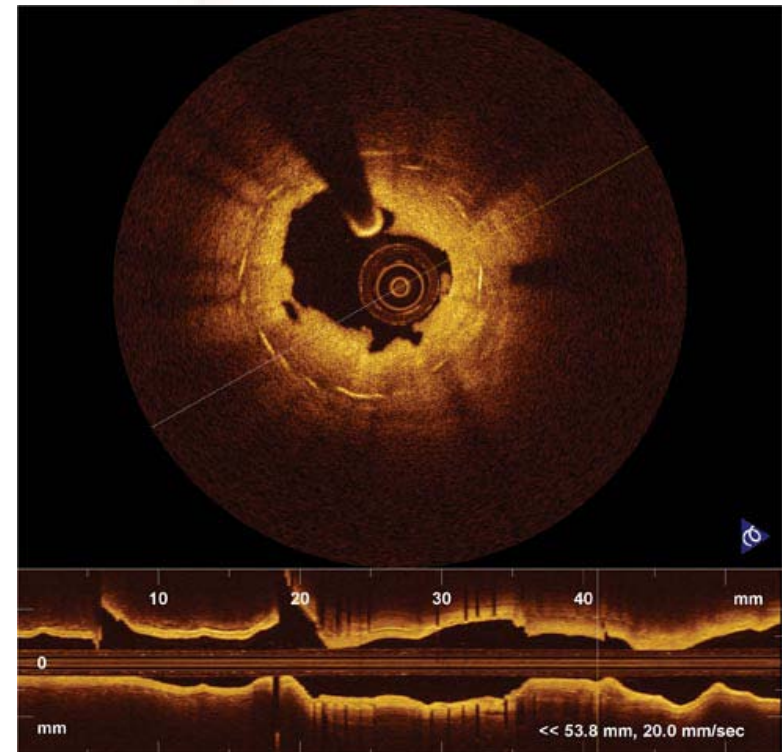
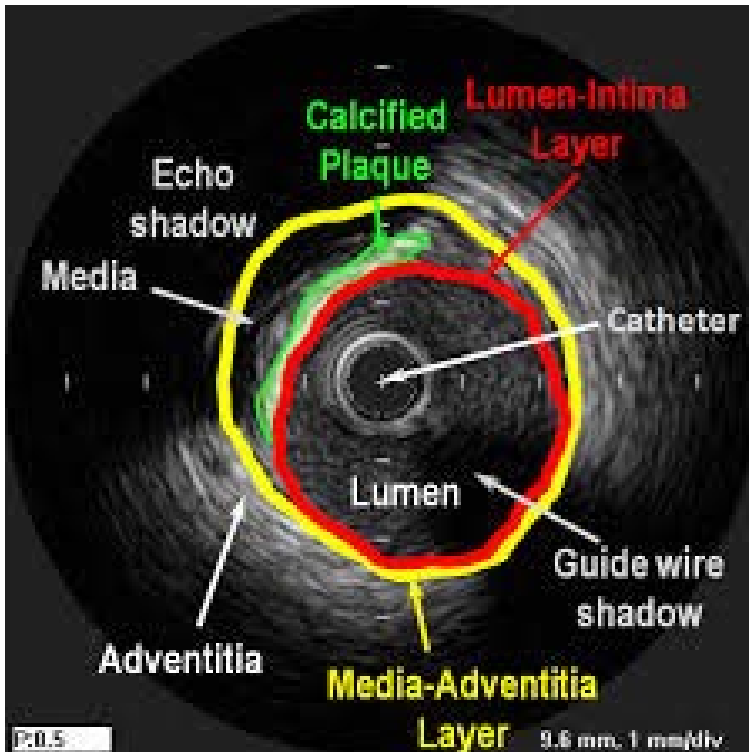
- Coil embolization of pulmonary arterial malformations
- Stenting of Aortic Coarctation

- **Cardiopulmonary**

- Inhaled nitric oxide testing for patient with pulmonary arterial hypertension
- Pulmonary angiography

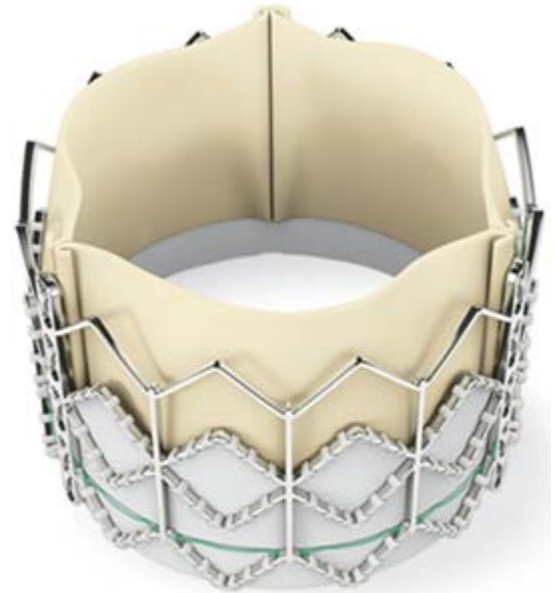
# Fractional flow reserve measurement with pressure wire Intravascular coronary imaging with intravascular ultrasound (IVUS), optical coherence tomography (OCT)

$$FFR = \frac{\text{Distal Coronary Pressure (Pd)}}{\text{Proximal Coronary Pressure (Pa)}} \\ \text{(During Maximum Hyperemia)}$$

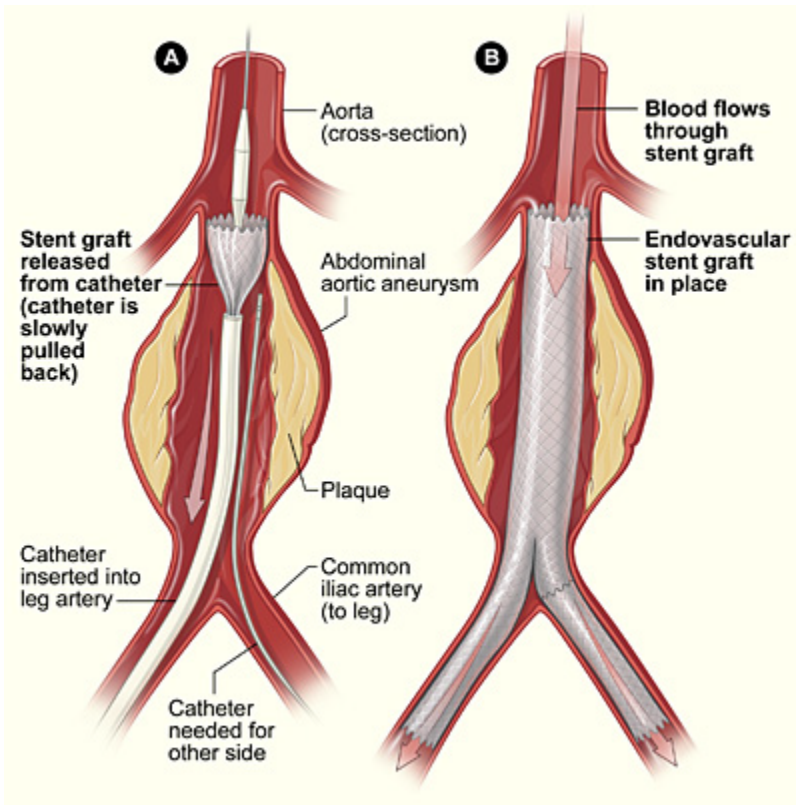


# Transcatheter Aortic Valve Replacement

- transfemoral
- transapical
- subclavian
- direct aortic
- "The initial rollout is for patients considered to be too high a risk for surgery" - [Jonathan Tobis, M.D.](#), clinical professor of cardiology and director of Interventional Cardiology at UCLA.

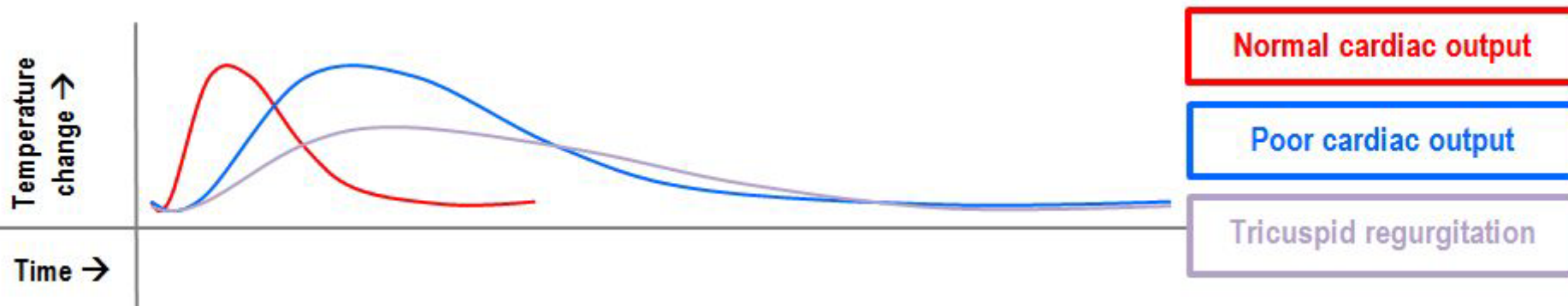


# GORE<sup>®</sup> EXCLUDER<sup>®</sup> AAA Endoprosthesis



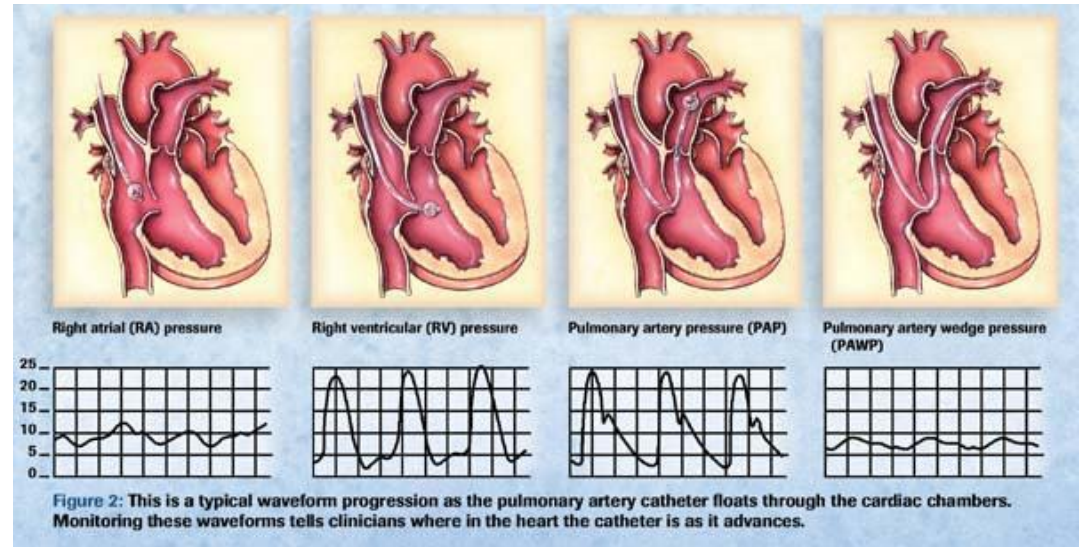
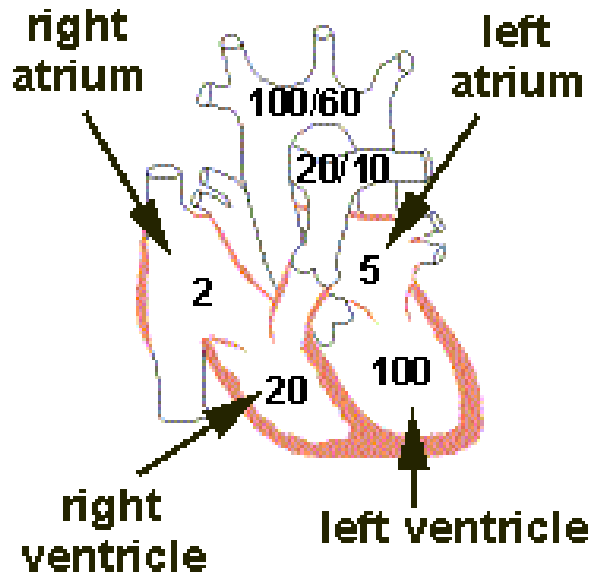
# Определување на cardiac output со термодилуционен метод

- Со помош на *Swan-Ganz Standard Thermodilution Pulmonary Artery Catheter* се определува разликата на температурата (со вбризган ладен раствор во ДП) за определено време на катетер поставен во гранка на пулмоналната артерија.
- 4.9 л/мин жени; 5.6 л/мин мажи





# Десна срцева катетеризација



- ПAX »25 mm Hg при мирување или 30 mm Hg при напор
- Определување на терапевтски ефект на аплициран NO кај пациенти со ПAX (резистентни на останати медикаменти)

# Миокардна биопсија

## Индикации

- Amyloidosis
- Alcoholic cardiomyopathy
- Hypertrophic cardiomyopathy
- Idiopathic cardiomyopathy
- Ischemic cardiomyopathy
- Myocarditis
- Peripartum cardiomyopathy
- Restrictive cardiomyopathy

## Bioptome catheter



# Детска интервентна кардиологија

Patent ductus arteriosus  
amplatzer duct occluder

ASD amplatzer occluder

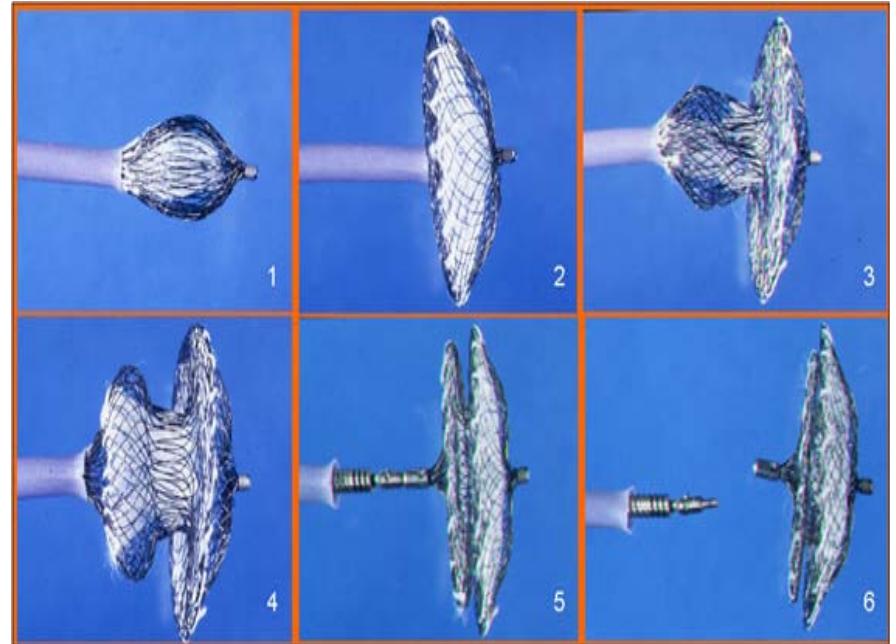
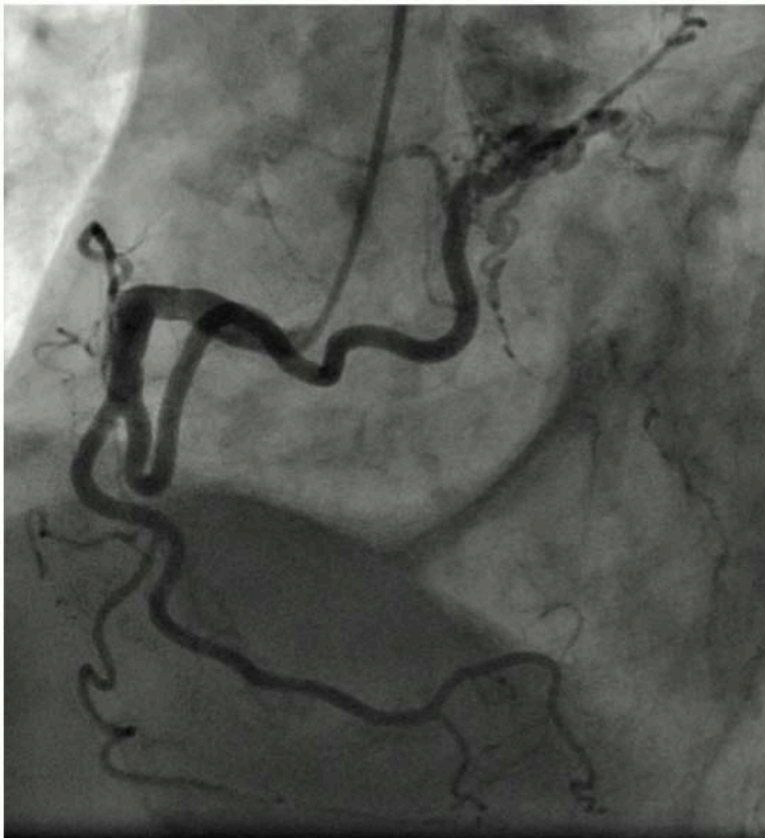


Figure 1. The ADO2 made of a fabric free nitinol mesh with a three-lobed structure.

# Детска интервентна кардиологија

Coil embolization на АВ фистула помеѓу RCA и RPA



**Figure 1.** Voluminous fistula between the right coronary artery and a branch of the pulmonary artery.



**Figure 3.** Successful coronary fistula occlusion.