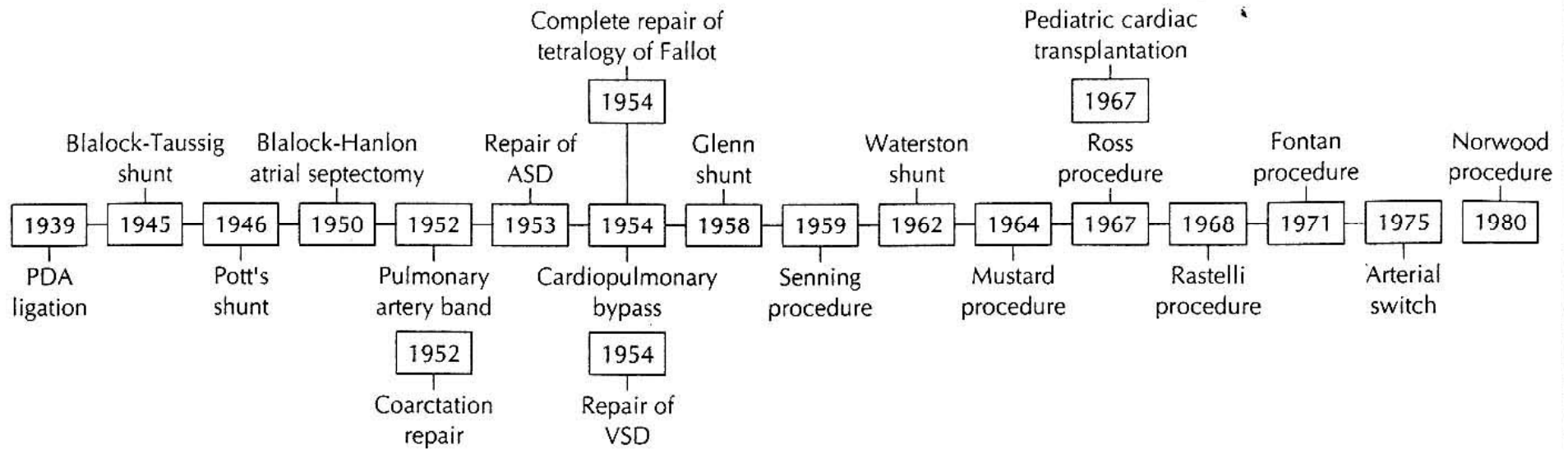
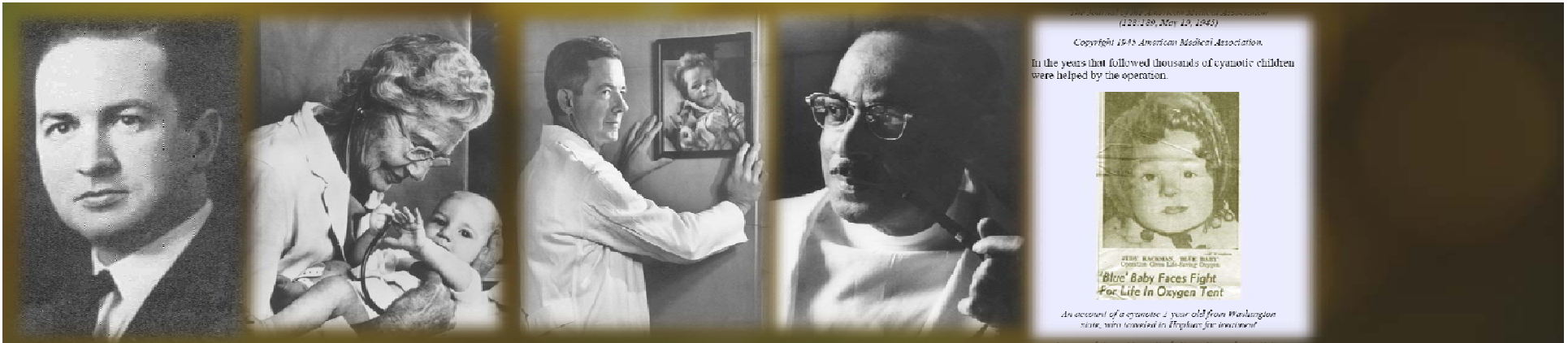


Grown Up Congenital Heart

GUCH; Then, Now & Tomorrow !

Heung Jae, Lee, MD, PhD

Cardiac & Vascular Center, Samsung Medical Center,

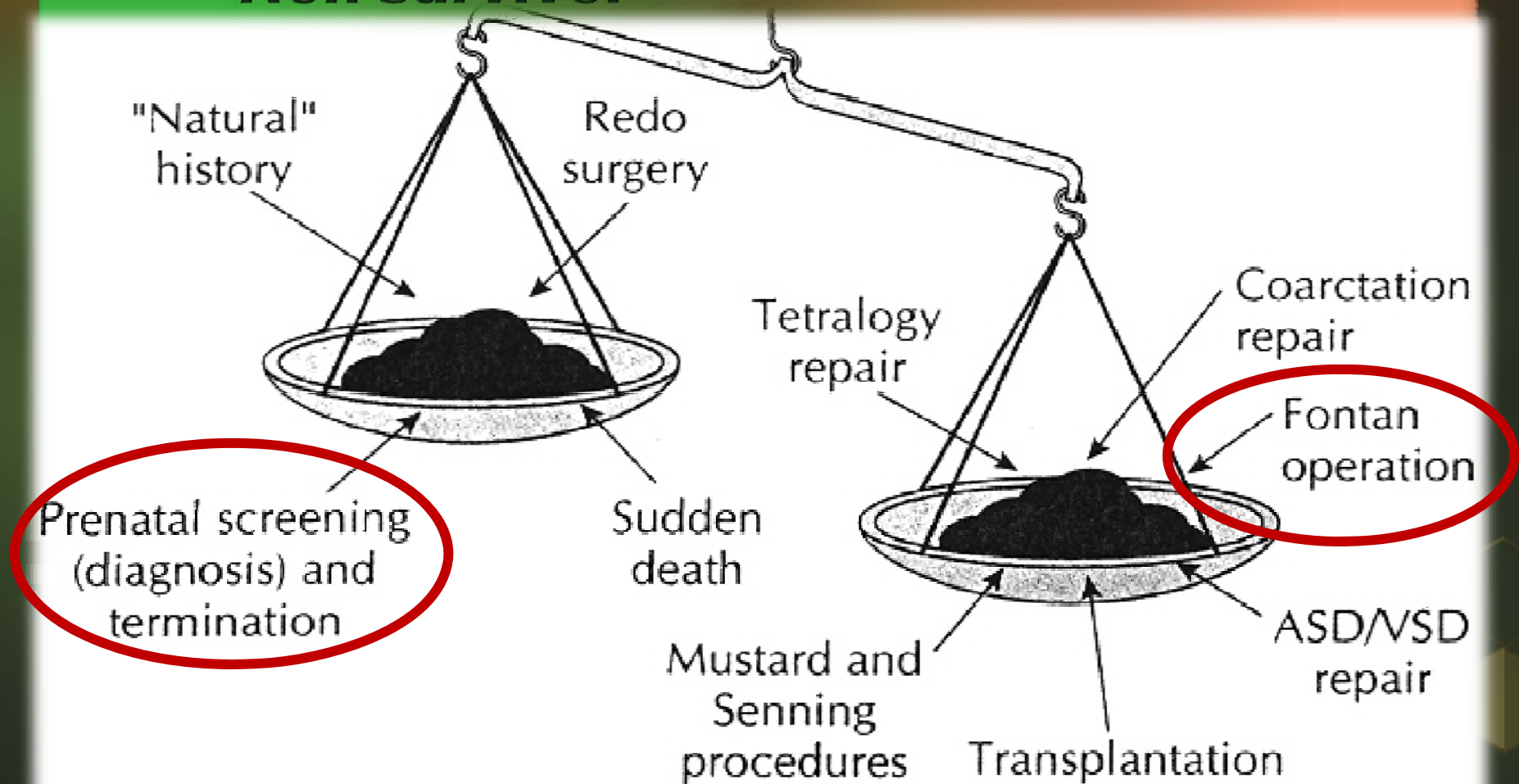


The major landmarks in the history of CHD

Factors affecting balance of population

Non survivor

Survivor





GUCH population

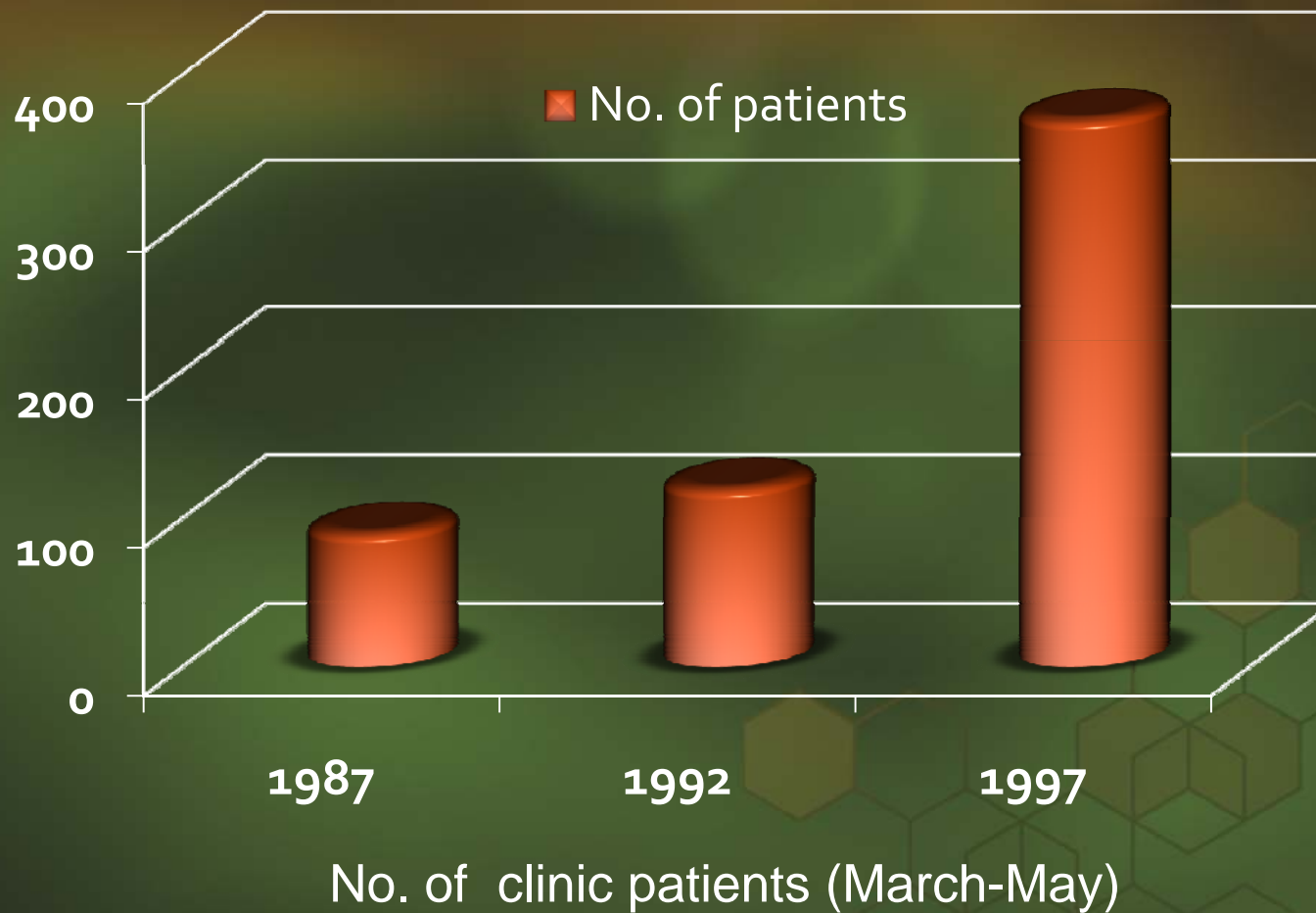
- At birth : 6 ~ 10 per 1000 live birth
- Natural Survivor at puberty (Presurgical era)
: 5 ~ 15 %
- Natural & Unnatural GUCH Survivor
(Surgical era) : over 85 %

USA : over million now,

Korea : ca 150,000 ~ 200,000 ??



New GUCH patients; Toronto





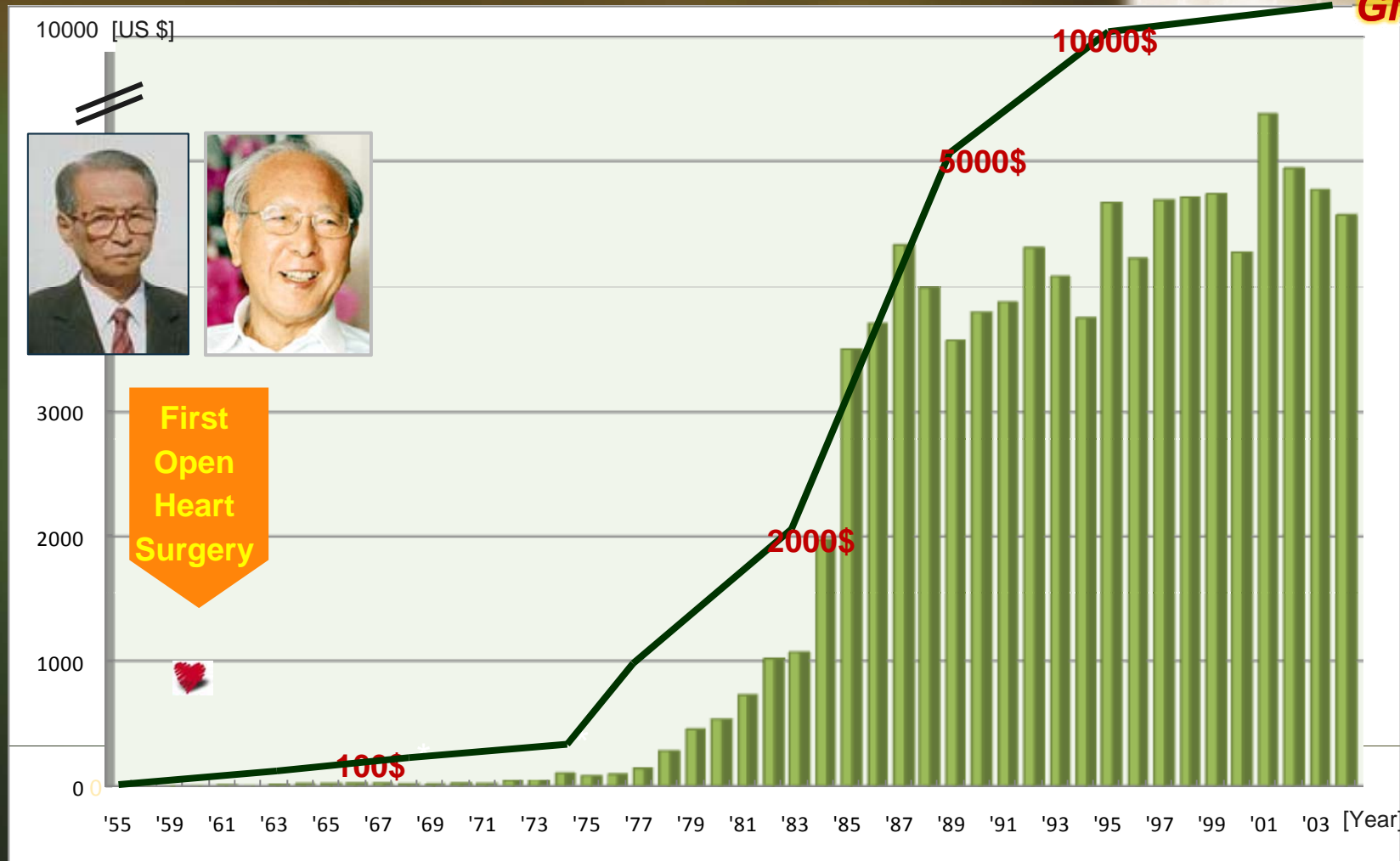
Cardiac surgery for CHD in Korea

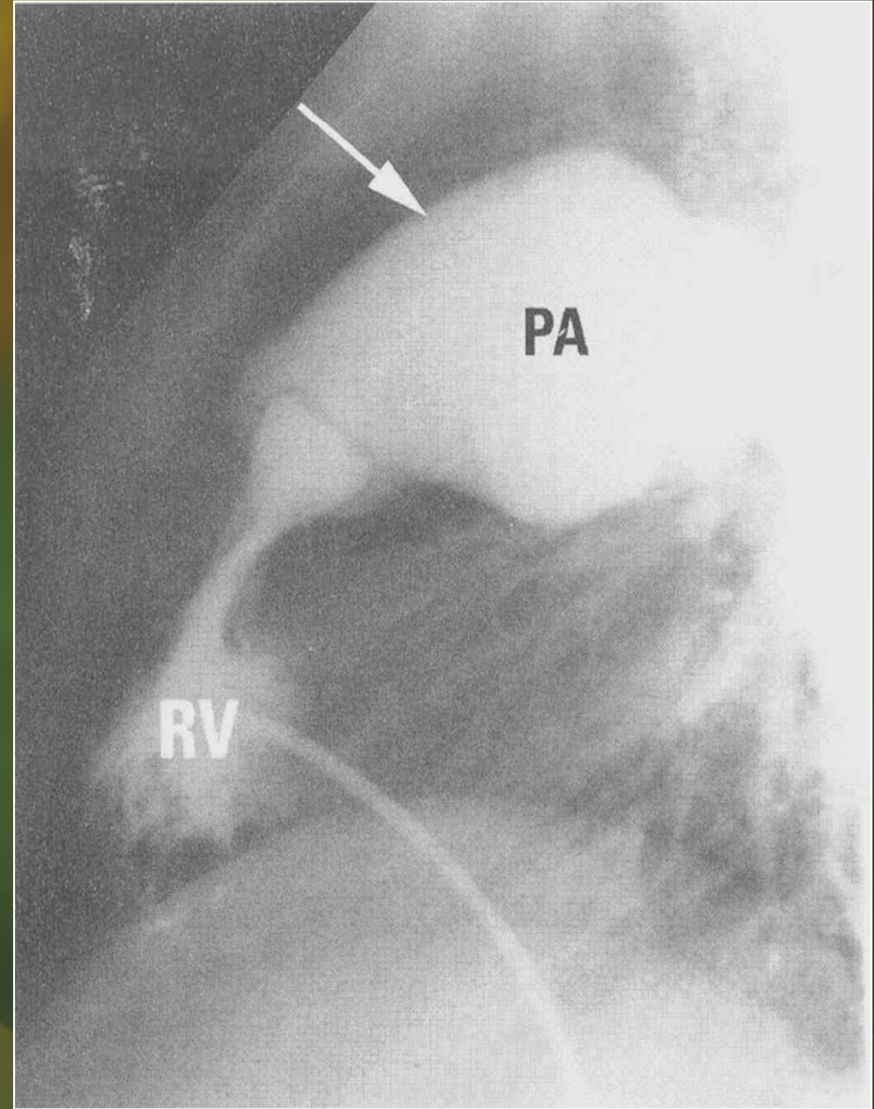
2005 Grown Up
Congenital Heart
Symposium

W. 1000-0000, Seoul 152-747
E-mail: cardcon@mc.samsung.co.kr
Tel: 02-3476-2526 Fax: 02-3476-0043



GNP





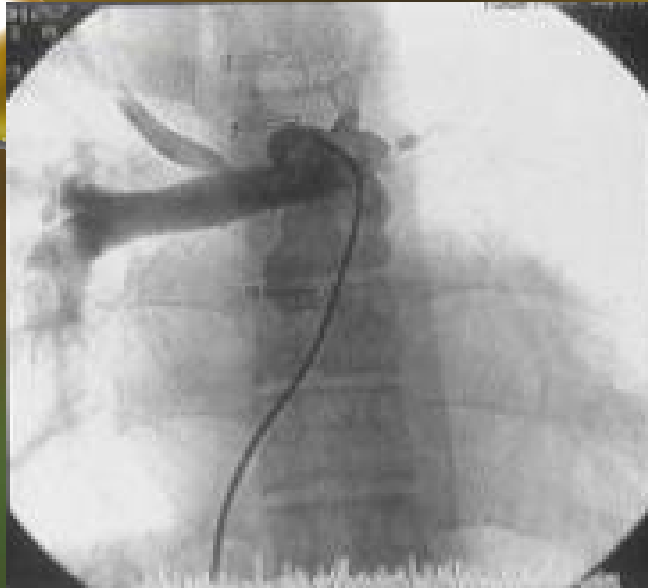
**Valvar PS: MPA dilatation presenting as
'Mediastinal mass'**



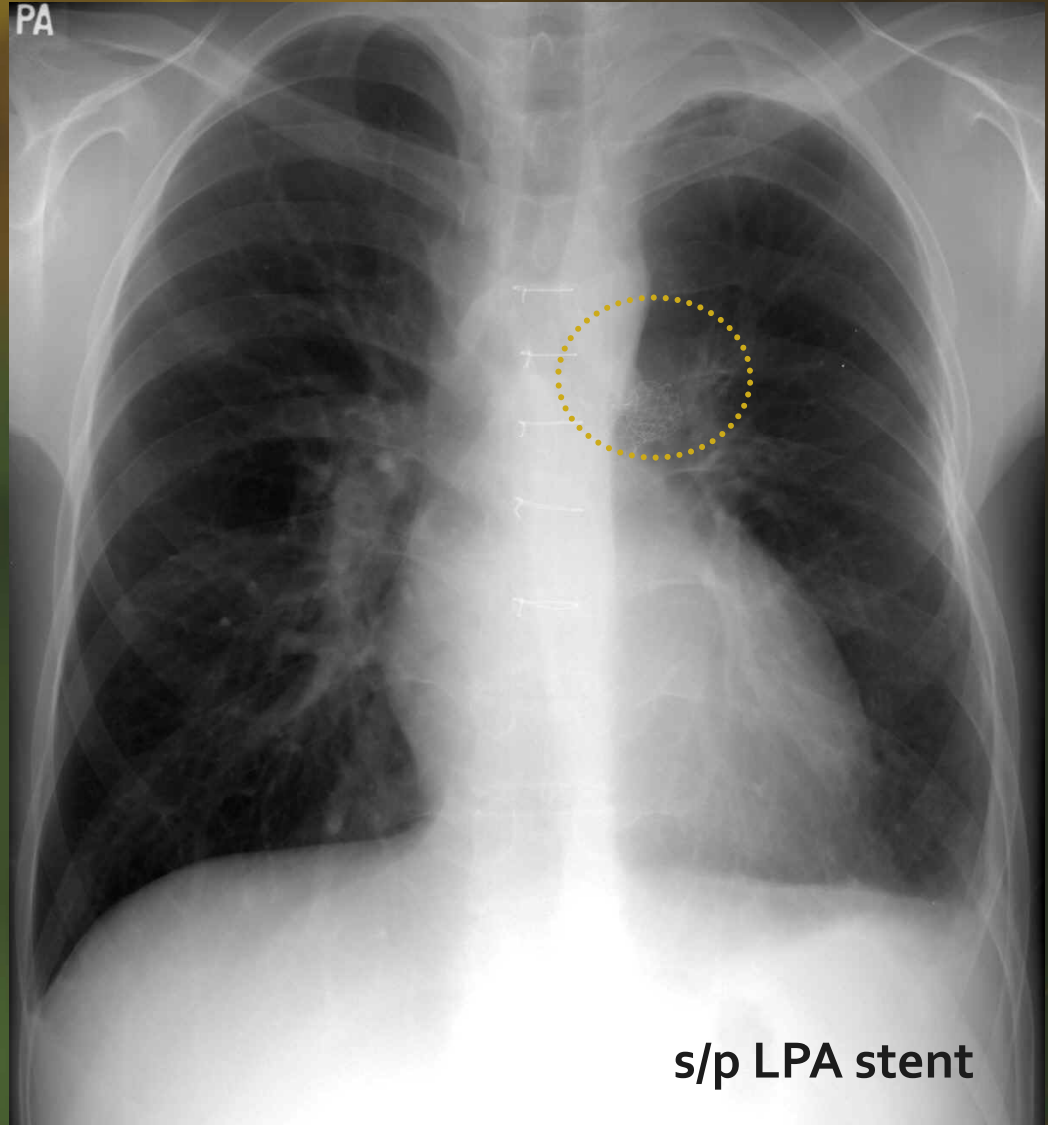
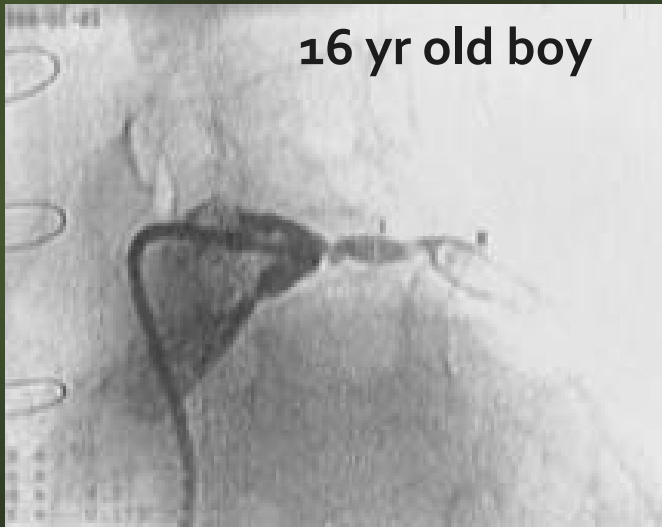
Compltet heart block
Lt. Isomerism
IVC interruption



CATCH 22
TOF/Mental retardation



16 yr old boy



s/p LPA stent

s/p TOF / LPA stenosis, LPA restenosis & PLE

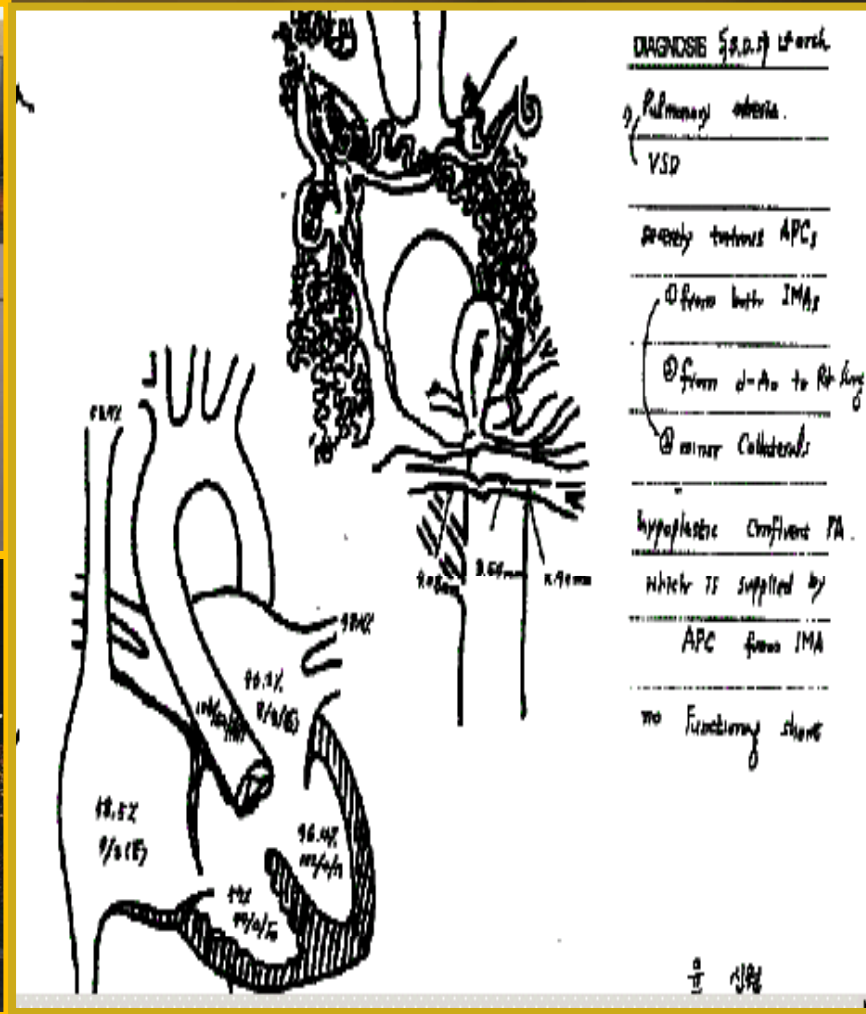
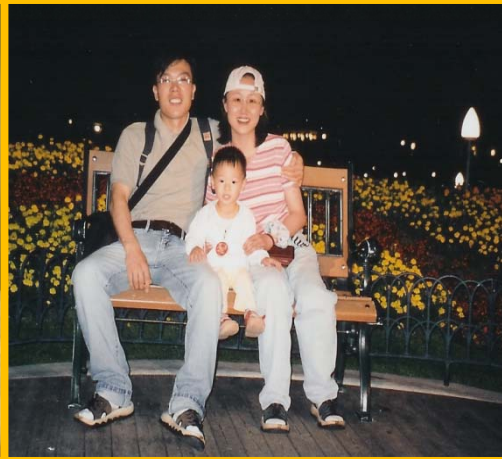


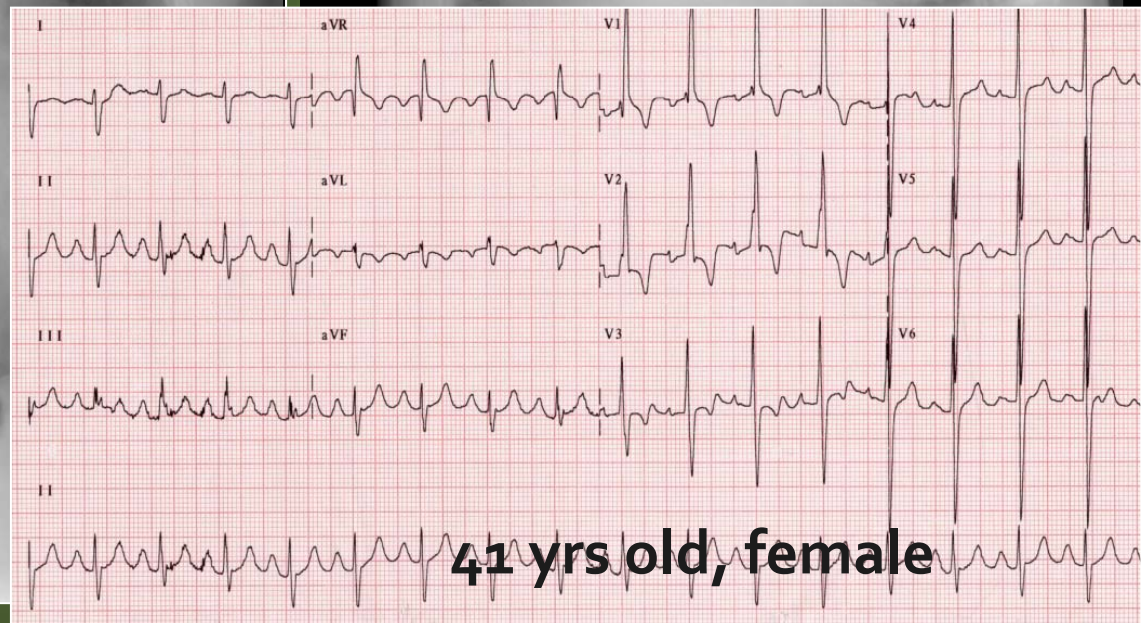
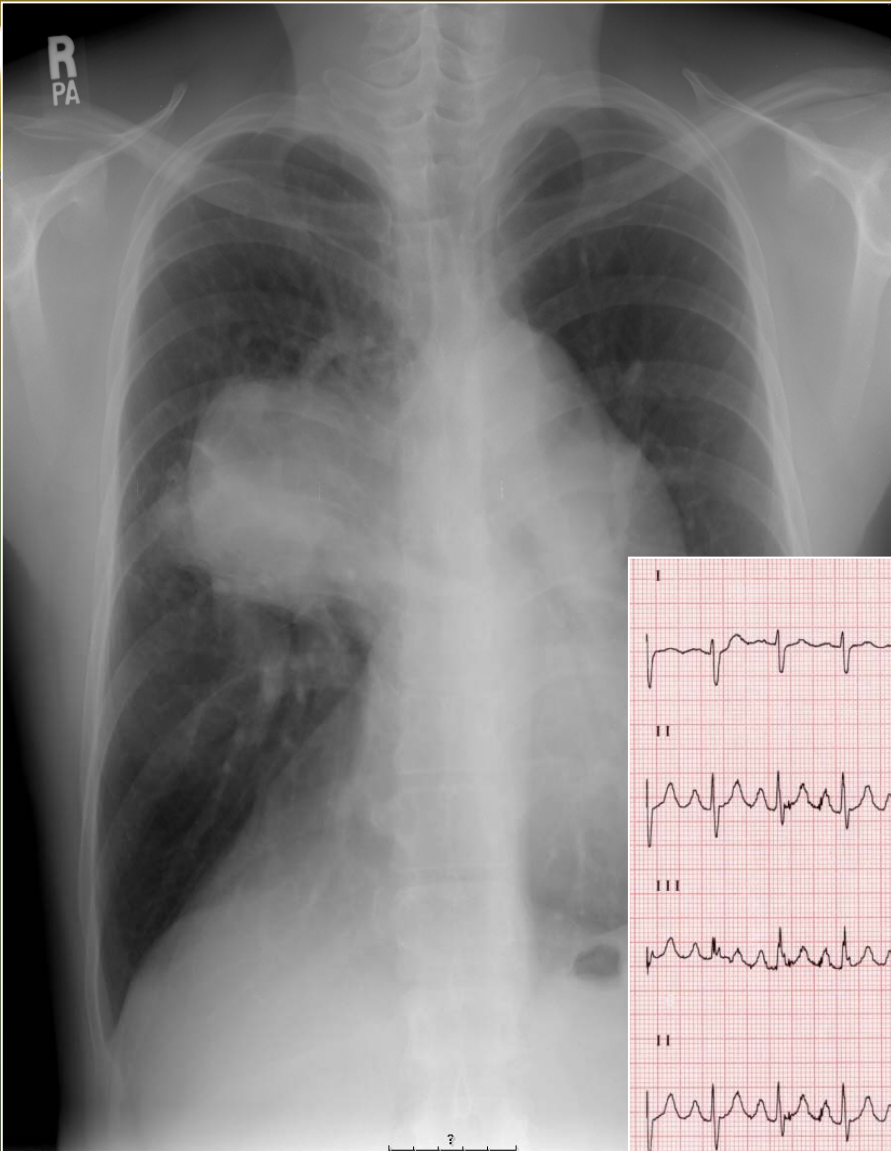
37 yrs old, male

s/p Corrected TGA/VSD/PS
with "residual VSD & conduit stenosis"



Little girls will mothers be !!



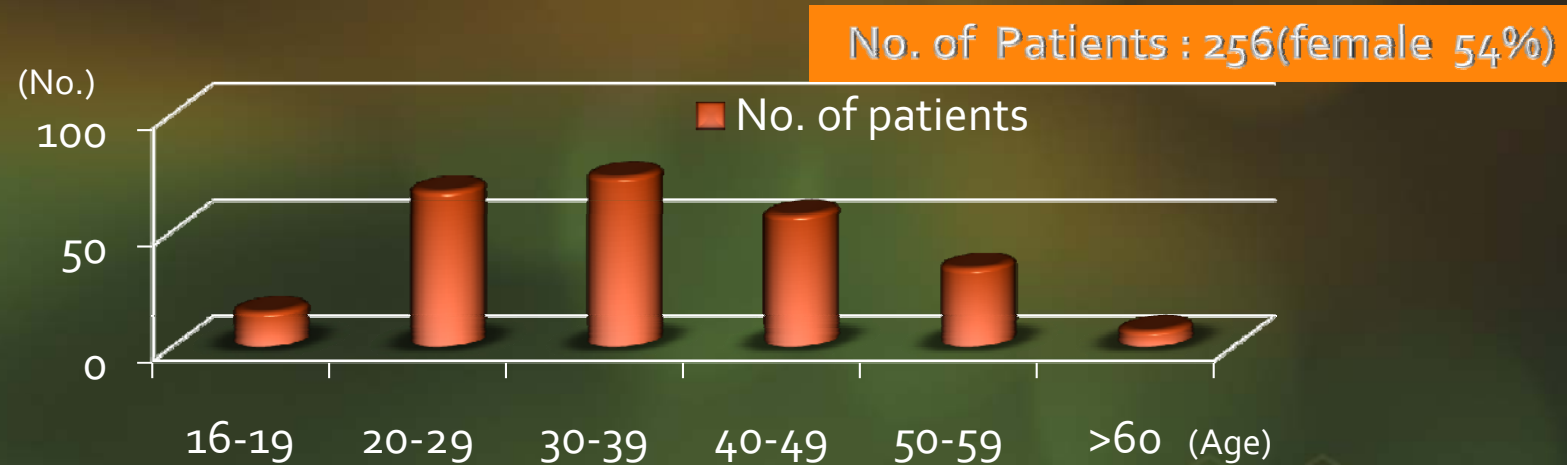


PDA with Eisenmenger

Differential cyanosis



Clinical profile of SMC GUCH 2007



	'Natural survivor'	'Post op.' Survivor
Total No. of Case	91	168
Need specific care* , n(%)	48 (53%)	112 (66%)
Need admission**, n(%)	39 (42%)	42 (25%)

* **Need specific care: Medication, cardiac operation or special consultation**

** **Admission**



CHD; Commonly seen in adults

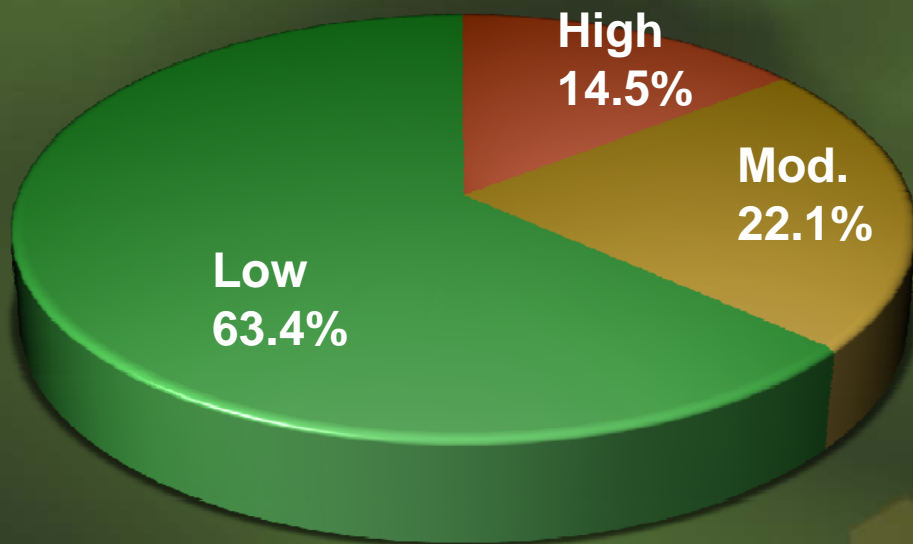
Toronto (1997)	
1	ASD
2	VSD
3	PS
4	TOF
5	LVOTO
6	CoA
7	PDA
8	Eisenmenger syndrome
9	TGA

Seoul(SMC, 2007) , n=256		
1	ASD	36.8%
2	VSD	17.0%
3	TOF	14.0%
4	PDA	7.0%
5	PA	4.6%
6	TGA	3.5%
7	Ebstein	2.7%
8	PS	2.3%
9	AVSD	1.9%
10	Others: Eisenmenger (7.0%), Marfan(5.8%), AV fistular(0.7%)	



Disease severity

Distribution (SMC 2007, N=256)



Definition

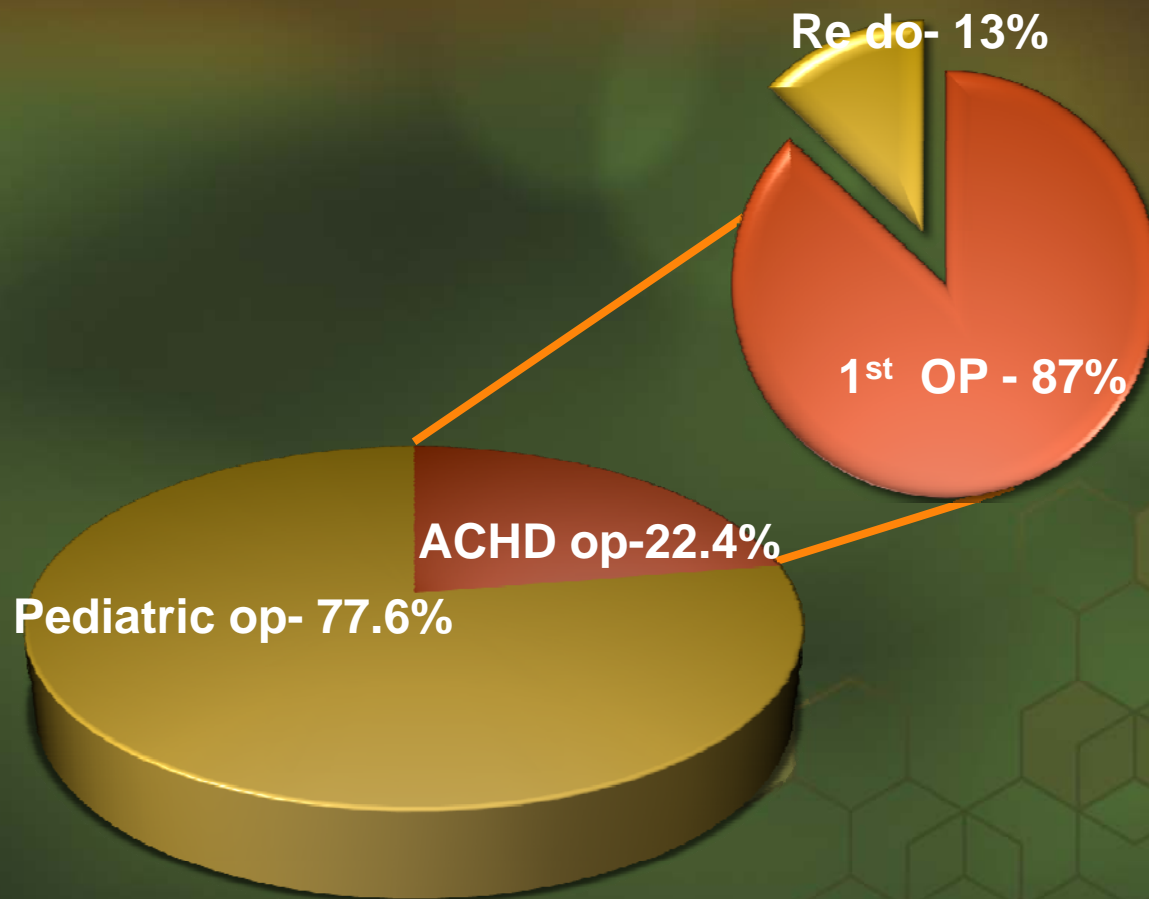
(Miller et al; Pediatrics 2000)

- **Low:** Maximal 1 cardiac operation or 1 cath.
- **Moderate:** more than 1 cardiac operation or 1 catheterization
- **High:** persistent cyanosis, $<92\%$ SaO₂ at rest or single ventricle physiology



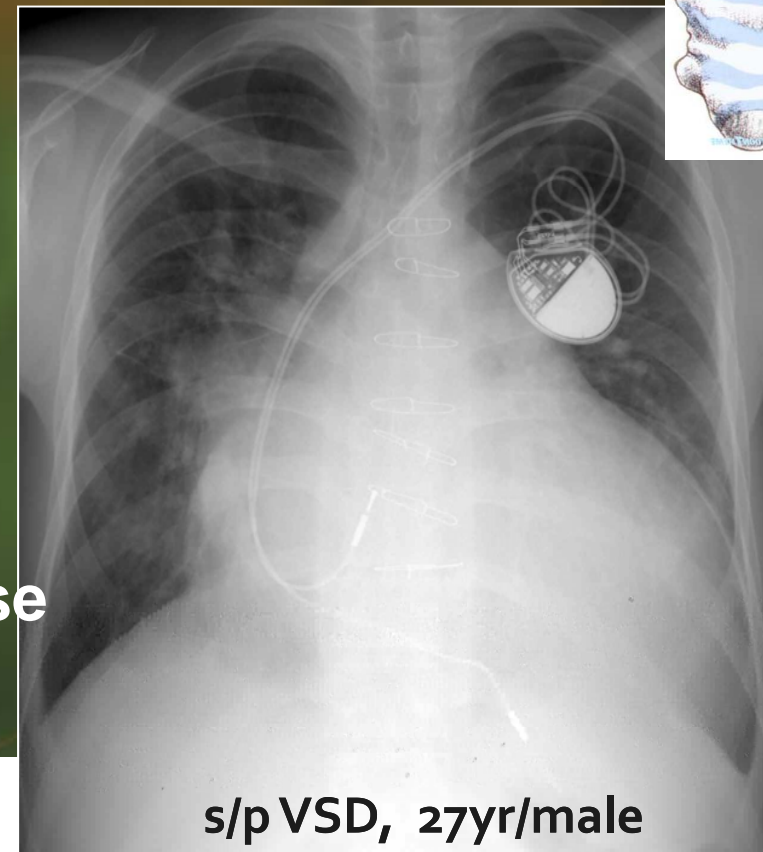
Surgical profile of ACHD patients

Total CHD cardiac operation , SMC, 2007. (n=517)



Four major cardiologic concerns in GUCH clinic

- Arrhythmia
- Infective endocarditis
- Myocardial failure
- Pulmonary vascular disease



s/p VSD, 27yr/male



**Residual VSD, CHB, PHT
Myocardial failure**



The road to the best care for CHD

fetus



Psychosocial issues

Exercise

Congenital syndromes

Noncardiac surgery

Cyanosis

When should we do what for CHD ?

heart failure

Pregnancy / contraception



Clinical impact of GUCH clinic

Status of “missing follow-up” case
(1994~1996, SMC; n=53)

	GUCH (n=7/121)	No GUCH(n= 46/108)
Simple F/U	2	13
Need Cardiac Med.	0	4
Need Op for CHD	2	20
Need Transplant	1	2
Other	2	7

** 'Lost more than 6 months' cases
who need specialized care



Organization

Pediatric Cardiology

Adult Cardiology

Coordination

GUCH clinic

Cardiac Surgeon

Consultant

Interdisciplinary approach !!



Early & mid 1970th in Korea

THEN!



U.S. Heart Surgery Saves 500 ROK Youths

Harriet H. Hodges, 65, received cards, letters and small presents from hundreds of Korean children and adults who know her simply as "grandma."

But Hodges, from New York, isn't even a distant relative to any of them. She earned their affection by giving the Koreans all from poor families, new lives by arranging free open-heart surgery in the United States for them.

Her life-saving started 10 years ago. Shortly after visiting Korea in 1972, she heard about a 12-year-old Korean girl suffering from a serious congenital heart disorder.

Immediately, she and her husband, then director of the American-Korean Foundation (now the International Human Assistance Programs) began a series of telephone calls and letters to hospitals and charity organizations in the United States seeking assistance.

She convinced the Metropolitan Medical Center in Minneapolis to accept the Korean girl. She also arranged a visa, an airline ticket and care for her during her four- to five-month stay in the United States.

It saved the girl's life. Once, she needed support to walk and a daily escort to and from school. She had to

avoid excursions and physical exercise. Her fingers and lips were swollen and blue.

It marked the start of the 10-year-old open-heart surgery program of the

IHAP, a non-governmental organization affiliated in the United States.

The program has saved more than 500 Korean children from congenital heart defects, which in most cases are fatal,

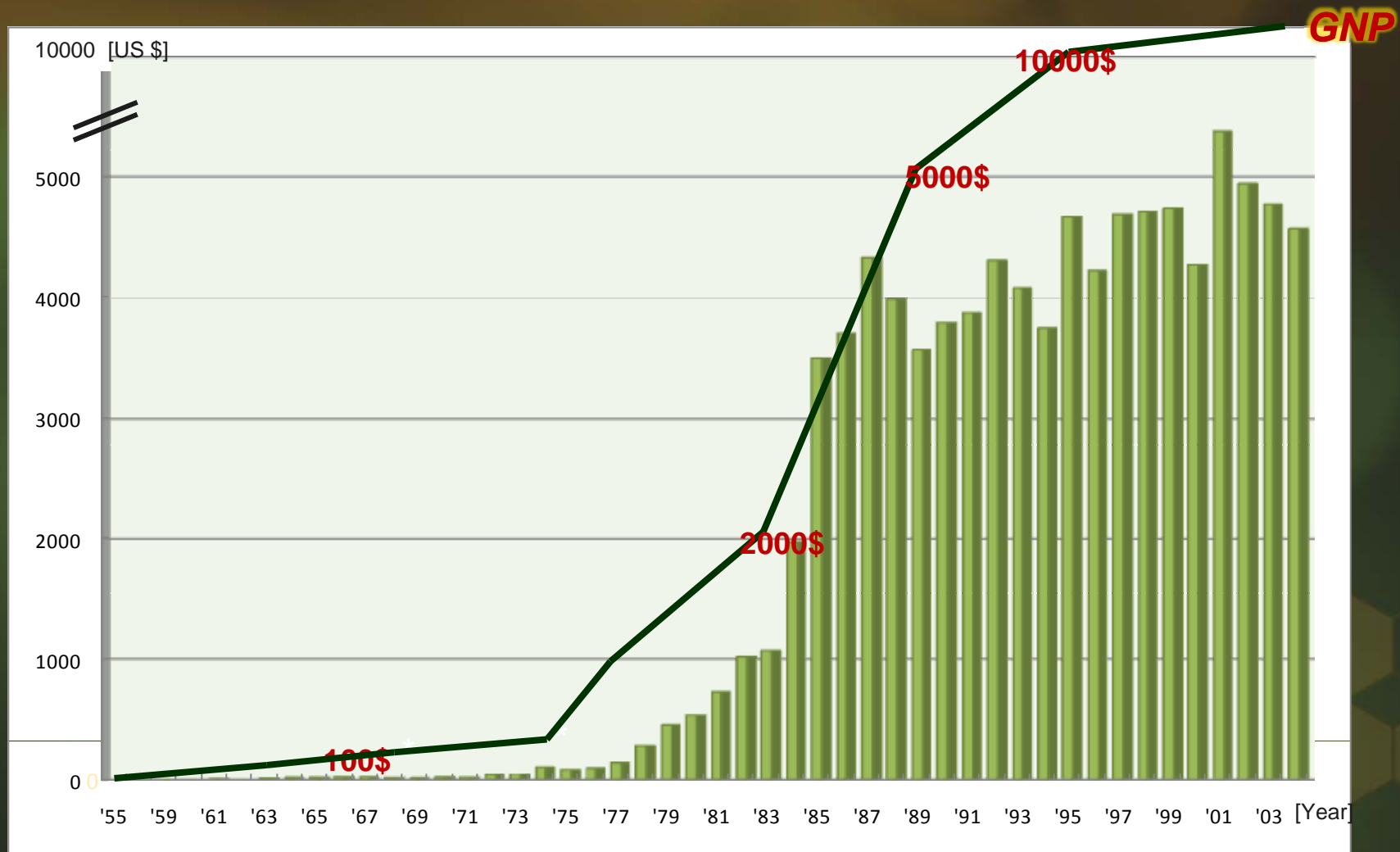


Two cardiologists from St. Francis Hospital check a Korean child with congenital heart disorder in Seoul.

Mrs. Hodges save over 3,300 Korean kids with CHD in 1970th



Cardiac surgery for CHD in Korea



Hà Nội children's hospital now offers vital open heart surgery

HÀ NỘI — More northern children with heart trouble are expected to get necessary care now that Hà Nội's National Paediatric Hospital has performed its first open-heart surgery.

The first patients receiving the surgery yesterday were five-year-old Nguyễn Thị Thảo and Nguyễn Thị Hương Lan, 6, both of whom suffer from congenital heart diseases. Both were reported in good health following the procedure.

Thảo and Lan are two of six patients currently scheduled to receive operations at the hospital, all at no charge. The first four surgeries are being performed by Korean doctors, with the remainder to be conducted by resident doctors at the hospital, with the technical support of the Koreans.

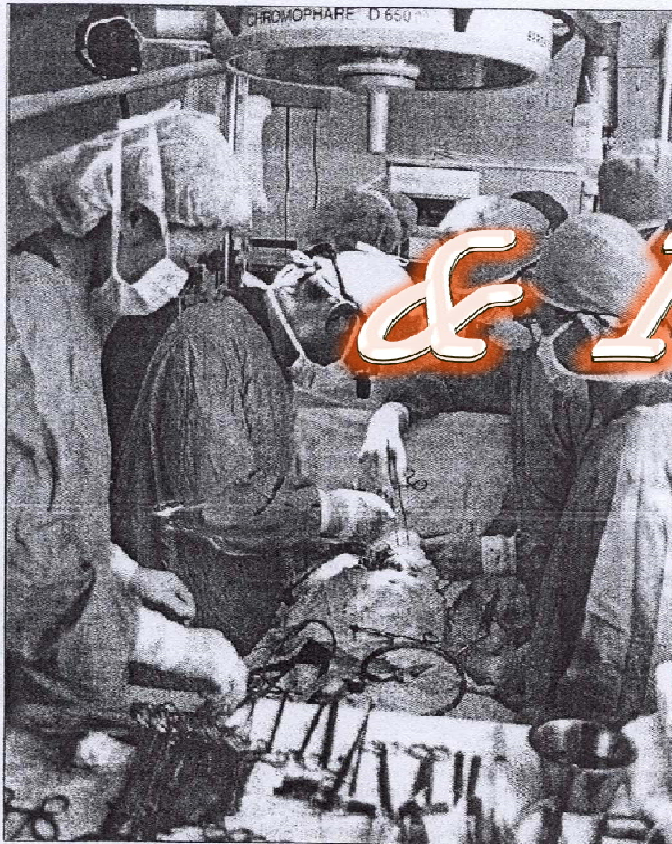
The hospital becomes the fourth medical facility in Việt Nam capable of performing open-heart surgery. Hospital director Nguyễn Thanh Liêm said it would now regularly carry out the surgery on children with heart diseases, mostly in northern provinces.

The hospital will waive about 60 per cent of operation fee for these patients, Liêm said.

It costs from VNĐ20 million to 30 million to conduct an open-heart surgery on one child.

It's estimated that about 1 per cent of Vietnamese children with congenital heart diseases need this

OWNERS OF THE FUTURE



Doctors at the National Paediatric Hospital carry out open-heart surgery. — VNS Photo Thu Hoài

kind of surgery.

Liêm said his hospital has had to train doctors and invest about VNĐ20 billion

in modern equipment over the past two years.

The other hospitals that perform open-heart surgery

are Hà Nội's Việt Đức Hospital, Huế Central Hospital, and HCM City's Heart Institute. — VNS



& NOW...!!



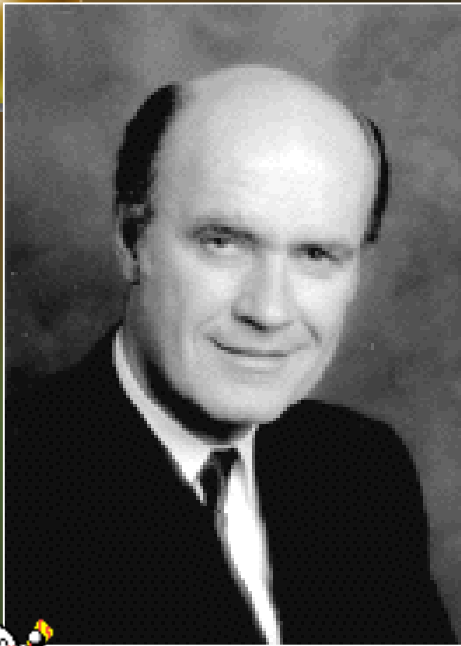


TOMORROW...?



Barriers to healthcare access for ACHD

- Failure to have guided transition from pediatric to adult care
- Lack of sufficient numbers of specialty clinics and regional centers
- **Inadequate access to or availability of insurance**
- Insufficient education of patients and caregivers regarding disease nature and follow-up
- Inadequate system of management of patient's cognitive or psychosocial impairment
- Inadequate infrastructure for case management.



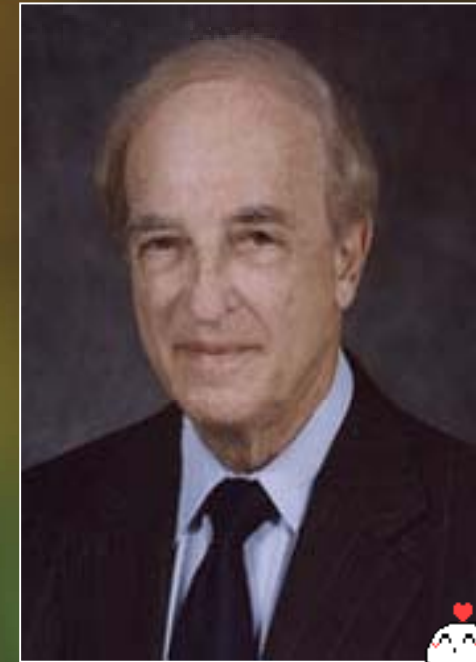
Webb, GD

University of Toronto Congenital
Cardiac Center for Adults



Somerville, J

Grown-Up Congenital Heart Clinic,
National Heart Hospital, London 1975



Perloff, JK

UCLA Adult Congenital Heart
Disease Center, LA 1978

Grown –Up Congenital Heart Disease: GUCH clinic
Adult Congenital Heart Disease: ACHD center



The 2nd Congress of Asia-Pacific Society for Adult CHD

Co-Chairperson : Koichiro Niwa(Chiba CardioVascular Center)
Lee Heung-Jae(Samsung Medical Center)

July 6 Tue and 7 Wed. 2010
Sheraton Grande Tokyo Bay Hotel, Urayasu, Chiba, Japan
at TOKYO DISNEY RESORT®

» The 2nd Congress of Asia-Pacific Society for Adult CHD

The APSACHD (Asia-Pacific Society for Adult Congenital Heart Disease) is a Society for the pediatric cardiologists, cardiologists, cardiovascular surgeons and other allied health personnel in the field of adult with congenital heart disease in the Asia-Pacific countries that was established in 2008. The official congress was decided to be held biannually and the first one was held in Jeju, Korea in 2008 combined with the congress of Asia Pacific Pediatric Cardiology Society. The 2nd congress will be held in Disney Resort, Chiba Japan from July 7th to 8th in 2010, together with the 3rd congress of Asia-Pacific Pediatric Cardiac Society and the 46th Annual Meeting of Japanese Society of Pediatric Cardiology and Cardiac Surgery. Over 2,500 attendants and their family will be anticipated to join the coming meeting. We are planning to host the Joint Session among Asia-Pacific Society for ACHD, International Society of Adult Congenital Heart Disease (ISACCD), and European Grown-up Congenital Heart Disease Group in European Society of Cardiology. We would like to invite all of you to join this Congress and take a major role to proceed the new Asian-Pacific ACHD Society together. We hope this Congress provides momentum for the future development of Asia-Pacific Society of Adult Congenital Heart Disease and international collaboration among ISACCD, Euro GUCH and Asian-Pacific ACHD groups.





THANK YOU !