

Annual Report of Cardiovascular Surgery 2010
Nagasaki University

2010.1~2010.12

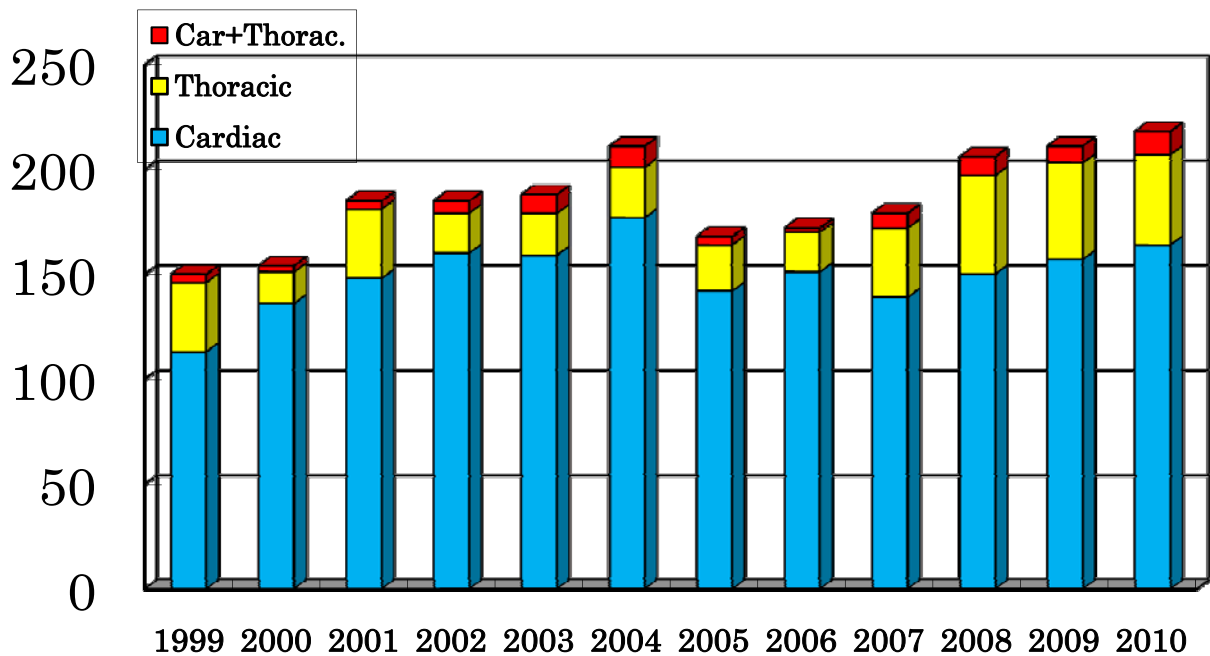
1. Overall	Page
I . Number of Operations and Surgical Mortality	2
II . Mode of Operation	3
III . Age Distribution	3
 2. Summary of CardioVascular Division	
I . Number of Operations and Surgical Mortality	4
II . Valvular Heart Disease	5
III . Ischemic Heart Disease	7
IV . Congenital Heart Disease	9
V . Others	9
VI . Maze operation	9
VI . Vascular Disease	10
 3. Summary of Hospital Deaths	12

~Overall~

I . Number of Operations and Surgical mortality

Division	No. Cases	No. OP.	OP. mortality (%)	Hosp. mortality (%)
Cardiac	163	164	1 (0.6)	1 (0.6)
Thoracic	43	43	2 (4.6)	4 (9.3)
Car. + Thoracic	11	11	0	0
Total	217	218	3 (1.4)	5 (2.3)
Abdominal aorta	66	66	0	0
Periphearal artery	30	30	1 (3.3)	1 (3.3)

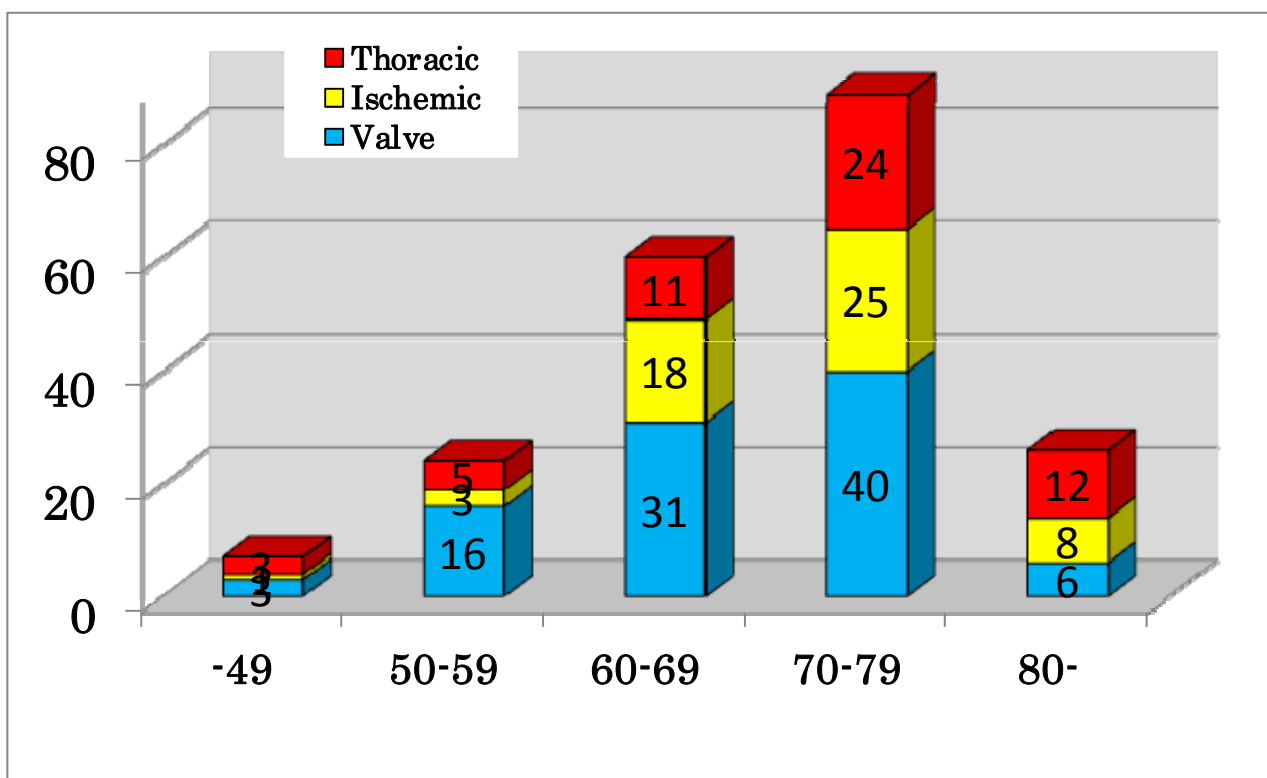
Operations



II . Mode of Operation

	total	Scheduled (%)	Urgent (%)	Emergent (%)
Ischemic	54	45 (83.3)	5 (9.3)	4 (7.4)
Valvular	97	90 (92.8)	6 (6.2)	1 (1.0)
Congenital	6	6 (100)	0	0
Others	12	6 (50.0)	3 (50.0)	3 (50.0)
Thoracic aorta	49	26 (53.1)	4 (8.1)	19 (38.8)
Abdominal aorta	66	57 (86.4)	0	9 (13.6)
Peripheral artery	30	10 (33.3)	0	20 (66.7)
Total	314	240 (76.4%)	18 (5.7%)	56 (17.9%)

III. Age Distribution



~Summary of Cardio-Vascular Division~

I . Number of Operations and Surgical Mortality

	No. Cases	No. OP.	OP. mortality (%)	Hosp. mortality (%)
Cardiac				
Valvular (redo)	102 (9)	103	1 (1.0)	1 (1.0)
Ischemic (redo)	77 (2)	77	1 (1.3)	1 (1.3)
Congenital	6	6	0	0
Others	12	12	0	0
Vascular				
Thoracic aorta (redo)	54 (4)	54	2 (3.7)	4 (7.4)
(Stent graft)	(20)			
Abdominal aorta	66	66	0	0
(Stent graft)	(27)			
Peripheral artery	30	30	1 (3.3)	1 (3.3)

Concomitant Procedure

Valvular(only): 72 cases

CABG(only): 54 cases

Thoracic aorta(only): 43 cases

Valvular + CABG: 19 cases

Valvular + Thoracic aorta: 7 cases

Valvular + Congenital: 2 cases

Valvular + Others: 2 cases

CABG + Thoracic aorta: 3 cases

Valvular + CABG + Thoracic aorta: 1 case

II . Valvular Heart Disease

	No. Cases	No. OP	OP mortality (%)	Hosp. mortality (%)
Aortic *	46	46	0	0
Mitral	29	30	0	0
Tricuspid	4	4	0	0
Pulmonary	0	0	0	0
Combined				
A+M	11	11	1 (9.1)	1 (9.1)
M+T	11	11	0	0
A+M+T	1	1	0	0
Total	102	103	1 (1.0)	1 (1.0)

* Bentall ope 3cases

a) M-repair

Diagnosis

MR	MSr	MsR	MS	MSR	Total		MVR (%)	Repair (%)
37	0	0	0	0	37		16 (33.3%)	32 (66.7%)

Etiology

Congenital	Infectious	Degenerative	Ischemic	DCM
2	3	27	3	2

Post ope. follow up

Jet area	No. Ope	Post ope. (discharge)	Follow (~12M)
non to trivial (0-2cm2)	37	32	31
mild (2-4cm2)	0	3	4
mild to moderate (4-8cm2)	0	1	0
moderate to severe (8cm2-)	0	0	1

b) Valve Substitutes implanted

79 Prostheses

	Mechanical	Tissue	Total
AVR	19	40	59
MVR	12	4	16
TVR	0	4	4
PVR	0	0	0
Total	31	48	79

III. Ischemic Heart Disease

	Total	Isolated CABG	OP. mortality(%)	Hosp. mortality(%)
SVD	12	4	0	0
DVD	10	6	0	0
TVD	34	26	0	0
LMT	21	18	1 (5.0)	1 (5.0)
Total	77	54	1 (1.4)	1 (1.4)

Off pump CABG : 15 cases On pump beating CABG : 3 cases

a) Conduit

191 (2.5 / patient)

	Artery	SVG	Cases
SVD	10	2	15
DVD	10	11	4
TVD	49	51	34
LMT	32	26	24
Total	101 (52.8%)	90 (47.2%)	77

b) Anastomoses 202 (2.6 patient)

b') Anastomoses by OPCAB
31 (2.1 / patient)

No. Anastomoses	No. Cases (%)
1	12
2	19
3	34
4	10
5	2
6	0
Total	77
Total anast.	202

No. Anastomoses	No. Cases (%)
1	4
2	6
3	5
4	0
5	0
Total	15
Total anast.	31

c) Anastomoses

No. Anastomoses	1	2	3	4	5	No. OP
SVD	12	0	0	0	0	12
DVD	0	6	4	0	0	10
TVD	0	7	18	8	1	34
LMT	0	6	12	2	1	21
Total	12	19	34	10	2	77
Total anast.	12	38	102	40	10	202

c) Graft patency

	Anastomoses	Examined	Patent	Rate**	Stenosis*	Rate***
SVG	100	74	70	94.6	0	100
Artery	102	83	81	97.6	1	96.4
LITA	71	56	55	98.2	0	98.2
RITA	30	26	25	96.2	1	92.3
GEA	1	1	1	100	0	100
Total	202	157(77.7%)	152	96.8 (%)	1	96.2 (%)

Intervention : 3 case

*Stenosis : $\geq 90\%$
 **patency rate (excl.stenosis)
 *** patency rate (incl.stenosis)

IV. Congenital Heart Disease

	No. Cases	No. OP.	OP. mortality (%)	Hosp. mortality (%)
ASD	1	1	0	0
VSD	2	2	0	0
PDA	2	2	0	0
VSA(Valsalva)	1	1	0	0
Total	6	6	0	0

V. Others

	No. Cases	No. OP.	OP. mortality (%)	Hosp. mortality (%)
Cardiac tumor	4	4	0	0
Constrictive pericarditis	2	2	0	0
VSP/LV aneurysm	2	2	0	0
DCM VAS implantation	1	1	0	0
Bleeding	1	1	0	0
Others	2	2	0	0
Total	12	12	0	0

VI. Maze operation

	No. Cases	Sinus recovery	(%)
Cryoablation	12	8	66.7%
Total	12	8	66.7%

VII. Vascular Disease

a) Replacement site

	No. Cases	No. OP.	OP. mortality (%)	Hosp. mortality (%)
Thoracic				
Ascending aorta	3	3	0	0
Hemiarch	13	13	1 (7.7)	1 (7.7)
Total arch	13	13	0	0
Descending aorta	23	23	0	1 (4.4)
(Stent graft)	(20)	(20)	0	1 (5.0)
Thoracoabdominal Ao.	2	2	1 (50)	1 (50)
Total	54	54	2 (3.7)	4 (7.4)

	No. Cases	No. OP.	OP. mortality (%)	Hosp. mortality (%)
Abdominal aorta	66	66	0	0
(Stent graft)	(27)	(27)	0	0
Peripheral artery	30	30	1 (3.3)	1 (3.3)
Total	96	96	1 (1.0)	1 (1.0)

b) Classification of Thoracic aorta

	No. Cases	Hosp. mortality (%)	Operation method	
Dissecting	20	1 (5.0)		
Acute	14	1 (7.1)	Total arch replacement	2
I	9	1 (11.1)	Hemiarch replacement (+CABG)	9
II	2	0	Stent Graft	3
IIIa	1	0		
IIIb	2	0		
Chronic	6	0	Hemiarch replacement (+AVR)	2
I	0	0	Descending aorta replacement	1
II	2	0	Thoracoabdominal Ao. replace.	1
IIIa	0	0	Stent graft	2
IIIb	4	2(50.0)		
True	34	0	Total arch replacement(+CABG)	7
Ascending	3	0	Total arch replacement(+Bentall/AVR)	4
Arch	13	0	Bentall	3
Descending	17	0	Hemiarch replacement(+AVR)	2
Thoracoabdominal	1	1 (5.9)	Descending aorta replacement	2
		0	Stent graft	15
			Thoracoabdominal Ao. replace.	1

c) Classification of Abdominal aorta, peripheral artery

	No. Cases	Hosp. mortality (%)	Operation method	
Abdominal aorta	66	0	Graft replacement	39
AAA	66	0	Stent Graft	27
Non-ruptured	57	0		
Ruptured	9	0		
Peripheral artery	30	1 (3.3)	Thrombectomy	15
ASO	10	0	Bypass grafting	9
Acute arterial occlusion	12	1 (8.3)	Plasty	3
Aneurysm	2	0	Others	3
Traumatic	4	0		
Others	2	0		

～ Summary of Hospital death ～

No.	氏名	性	年齢	診断	手術日	緊/待	術後日数
				術式	死亡日	剖検	死因

Cardiac 1 case

1	○下 ○子	F	75	U-AP OMI HD AS MR	2010/1/21	緊	19
				CABG x 2 AVR MP	2010/2/9	無	MOF

Thoracic aorta 4 cases

1	○代 ○雄	M	83	弓部全置換術後仮性動脈瘤	2010/5/15	緊急	75
				TEVAR(stent graft)	2010/8/1	無	食道瘻
2	○岡 ○子	F	78	AD(A) CD(B) DIC	2010/11/16	緊急	1
				部分弓部置換術	2010/11/17	無	出血
3	○道 ○紀	F	47	CD(B) DIC TEVAR後	2010/4/22	待機	1
				弓部全置換術 CABG	2010/4/23	無	出血
3	○藤 ○則	M	58	CD(B)	2010/8/26	待機	56
				遠位弓部胸部下行全置換術	2010/10/20	無	NOMI・MOF

Peripheral artery 1 cases

1	○口 ○喜	M	67	AAO HD MNMS	2010/6/3	緊	1
				血栓除去	2010/6/4	無	MNMS

各種データの解釈

- 1) OP mortality: 術後30日以内の全死亡。
Hospital mortality: 術後院内での全死亡。(他科転科後の他病死も含む。他院転院後の手術関連死も含む)
- 2) Mode of Operation: 二つ以上のカテゴリーを含む手術は主病変と考えられるいずれかのカテゴリーに分類。ただし、CABG+弁/大血管手術はそれぞれ弁、大血管手術としてカウント。Bentall手術は大血管手術としてカウント。
- 3) Number of Operations and Surgical Mortality: 各手術手技の延べ数を合算。
例:CABG + MP + As.Ao.置換→Ischemic, Valvular, Thoracic aortaのそれぞれに加算。
Bentall OP→Valvular, Thoracic aortaのそれぞれに加算。
- 4) Valvular Heart Disease: 弁に対する操作を行った(付加手術の有無にかかわらず)症例数、手術数を計算。
- 5) Ischemic Heart Disease: CABGを行った(付加手術の有無にかかわらず)症例数を計算。
- 6) Vascular Disease: Ascending aortaに対する手術はBentall OPを含む。