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Appendices

Appendix A: Demographic data of individual subjects

Subject no.	Sex	Age (years)	Wt (kg)	Ht (cm)	BMI (kg/m ²)	Smoking	Alcohol	DM
1.	M	61	65	162	25	-	-	-
2.	M	66	70	175	23	-	-	+
3.	M	60	69	156	28	-	-	-
4.	M	69	61	166	22	-	+	+
5.	F	64	57	147	26	-	-	-
6.	M	43	75	165	28	-	-	-
7.	M	46	52	155	22	-	-	-
8.	M	63	67	152	29	-	+	-
9.	F	48	60	156	25	-	-	-
10	M	63	64	168	23	-	-	-
11	M	40	66	161	25	+	-	-
12	F	59	65	150	29	-	-	+
13	F	60	69	156	28	-	-	-
14	M	57	75	175	24	-	+	-
15	M	76	63	165	23	-	-	-
16	M	70	64	162	24	-	+	-
17	F	65	70	160	27	-	-	-
18	F	68	57	149	26	-	-	+
19	M	49	80	171	27	-	+	-
20	F	67	54	146	26	-	-	-
21	F	59	61	146	29	-	-	+
22	F	67	55	152	24	-	-	-
23	F	63	55	154	23	-	-	-
24	M	37	85	168	30	-	-	-

Appendix B : Laboratory data of individual subjects

Subject no.	Glucose (4.2-6.1) mmol/l	BUN (2.6-9.2) mmol/l	Cr (62-124) μmol/l	Uric acid (240-538) μmol/l	CHO (150-250) mg/dl	TG (50-160) mg/dl	HDL (30-70) mg/dl	LDL (130-159) mg/dl	AST (0-37) U/L	ALT (0-40) U/L	Na (135-150) mmol/l	K (3.5-5.5) mmol/l	Cl (98-110) mmol/l	CO ₂ (24-34) mmol/l
1.	5.5	3.7	93	277	288	93	72	197	21	26	142.1	4.11	111	25.9
2.	10.8	6.8	76	343	233	109	45	166	18	24	142.5	4.38	104.8	24.5
3.	5.1	4.4	91	212	276	205	45	190	22	34	141.3	4.24	109	25
4.	8.7	6.1	119	244	218	177	35	148	20	25	138	5.13	108.4	26.2
5.	4.5	4.7	80	324	208	136	57	124	16	16	139	4.07	109	27.7
6.	5.4	4.3	102	419	246	133	47	172	29	43	145	4.4	106	30.7
7.	5	7.2	142	524	232	132	52	154	16	13	146.5	4.2	105	26.6
8.	6.4	4.1	91	316	247	141	59	160	25	34	144	4.45	109	17.3
9.	5	5.5	80	253	196	97	52	125	24	30	140.8	4.02	108	28.5
10.	7.3	12.6	96	362	401	202	67	294	25	39	141.2	4.38	110	27.9
11.	5	4.2	100	218	232	252	30	152	19	24	141.4	4.9	107	28.1
12.	9.6	4	76	258	270	142	57	185	32	33	141.7	4.93	109.4	24.8
13.	4.6	4.4	76	224	176	165	74	69	18	24	140.4	4.19	109	24.1
14.	2.9	5	105	312	268	139	49	191	21	25	146.2	4.48	105	27.7
15.	4.1	7.7	98	288	248	62	65	171	19	6	140.7	4.21	107	25.1
16.	5.7	6.8	122	322	255	185	47	171	13	23	145.3	4.24	106	28.4
17.	4.2	5.2	101	333	189	223	36	108	20	23	145.2	3.89	110	26.1
18.	8.2	5.8	86	220	269	143	51	189	15	21	141	5.3	107	30
19.	5.5	4.6	98	465	205	121	49	132	21	13	139.9	4.37	108	24.9
20.	4.9	6.5	137	181	188	81	50	122	17	18	138.3	4.66	103.5	30.9
21.	8.1	5	259	214	182	264	32	97	19	15	138.4	4.76	111.6	25.8
22.	4.4	4.7	80	410	194	78	38	140	21	15	145	4.6	106	22
23.	5.6	6.1	106	303	235	75	60	160	29	23	139	4	103	25
24.	4.6	5.7	126	213	224	132	50	148	26	20	145.1	3.79	104	27.2

Appendix C : Office BP at the screening visit and after placebo

Subject no.	Office BP at the screening visit				Office BP at placebo			
	SBP	DBP	MAP	HR	SBP	DBP	MAP	HR
1.	160	100	120	84	156	97	117	90
2.	130	80	97	80	142	91	108	84
3.	150	96	114	80	148	96	113	95
4.	160	100	120	85	157	98	118	82
5.	169	99	122	76	144	94	111	76
6.	130	90	103	64	139	93	108	83
7.	142	94	110	80	145	90	108	83
8.	180	110	133	87	158	98	118	84
9.	150	102	118	87	150	95	113	72
10.	178	107	131	80	153	97	116	83
11.	150	95	113	60	140	90	107	78
12.	173	100	124	71	163	93	116	64
13.	130	100	110	72	145	100	115	64
14.	180	110	133	67	157	107	124	83
15.	183	100	128	60	167	93	118	63
16.	150	102	118	94	149	100	116	96
17.	166	102	123	84	164	104	124	82
18.	160	83	109	64	164	89	114	84
19.	160	100	120	64	150	100	117	62
20.	178	110	133	86	170	104	126	68
21.	157	106	123	75	157	103	121	74
22.	148	82	104	90	173	92	119	72
23.	160	98	119	80	160	95	117	75
24.	150	110	123	87	145	103	117	88

Appendix D : Office BP and 24-hour ABP measurements after placebo

Subject no.	BP measurements at baseline (mmHg)							
	Office BP		Average 24-hour ABP					
	SBP	DBP	24-hour		daytime		nighttime	
SBP			DBP	SBP	DBP	SBP	DBP	
1.	156	97	147	90	159	97	125	75
5.	142	91	148	87	156	91	131	79
6.	148	96	136	86	141	86	127	85
7.	157	98	142	85	149	90	128	74
8.	144	94	153	90	163	96	132	78
4.	139	93	141	85	151	93	119	71
2.	145	90	139	86	147	86	122	87
3.	158	98	146	85	159	94	120	72
9.	150	95	150	96	153	97	145	96
10.	153	97	143	90	146	93	137	85
11.	140	90	132	85	138	91	118	74
12.	163	93	160	92	165	99	151	79
14.	145	100	143	90	151	96	126	77
15.	157	107	146	98	153	102	133	89
13.	167	93	149	91	160	97	126	78
16.	149	100	133	85	141	90	116	74
17.	164	104	138	91	141	93	133	88
18.	164	89	158	86	159	86	158	88
19.	150	100	148	96	150	97	142	94
20.	170	104	165	92	165	95	164	85
21.	157	103	163	92	167	97	153	82
22.	173	92	145	85	145	88	144	78
23.	160	95	156	87	157	89	154	81
24.	145	103	140	99	132	96	156	92

Appendix E : Office BP at baseline and after 5-20 mg of enalapril administration.

Subject no.		Office BP															
		Baseline				5 mg enalapril OD				10 mg enalapril OD				20 mg enalapril OD			
		ID no.	SBP	DBP	MAP	HR	SBP	DBP	MAP	HR	SBP	DBP	MAP	HR	SBP	DBP	MAP
1.	2.	142	91	108	84	140	91	107	78	136	80	99	76				
2.	3.	148	96	113	95	145	100	115	73	147	93	111	56				
3.	4.	157	98	118	82	146	97	113	84	148	83	105	93				
4.	5.	144	94	111	76	167	91	116	83	130	90	103	69				
5.	9.	150	95	113	72	147	96	113	74	140	92	108	71				
6.	10.	153	97	116	83	141	90	107	85	120	85	97	69				
7.	11.	140	90	107	78	134	88	103	74	113	70	84	50				
8.	13.	145	100	115	64					130	90	103	78	110	68	82	85
9.	14.	157	100	124	83					148	100	116	68	137	94	108	67
10.	16.	149	100	116	96					129	94	106	68	124	89	101	75
11.	17.	164	104	124	82					133	90	104	79	120	80	93	82
12.	18.	134	89	114	84					158	84	109	82	158	80	106	80
13.	19.	150	100	117	62					153	100	118	66	150	97	115	66
14.	20.	170	104	126	68					163	100	121	74	150	81	104	64
15.	21.	157	103	121	74					168	96	120	76	136	84	101	88
16.	24.	145	103	117	88					128	88	101	86	120	80	93	73

Appendix F :Average ABP at baseline and after 5-20 mg of enalapril administration.

Subject no.		Average 24-hour ABP															
		Baseline				5 mg enalapril OD				10 mg enalapril OD				20 mg enalapril OD			
		ID no.	SBP	DBP	MAP	HR	SBP	DBP	MAP	HR	SBP	DBP	MAP	HR	SBP	DBP	MAP
1.	2.	148	87	107	73	131	82	98	74	127	78	94	71				
2.	3.	139	86	103	74	133	83	100	75	125	79	94	60				
3.	4.	142	84	104	90	137	81	100	89	136	76	96	91				
4.	5.	155	89	111	71	137	87	104	68	131	78	96	68				
5.	9.	150	97	114	69	146	94	111	69	143	91	108	69				
6.	10.	143	90	108	82	103	87	99	74	118	82	94	64				
7.	11.	132	85	101	78	125	81	96	62	118	78	92	58				
8.	13.	143	89	108	80					120	78	92	91	106	65	78	86
9.	14.	146	98	114	66					134	97	110	74	134	94	107	78
10.	16.	133	85	101	84					130	85	100	79	15	83	95	82
11.	17.	138	91	107	80					129	84	99	66	122	80	94	74
12.	18.	158	86	110	79					136	74	94	67	134	71	92	67
13.	19.	148	96	113	68					145	95	111	67	140	93	109	67
14.	20.	165	92	116	65					158	90	113	64	148	85	106	65
15.	21.	163	92	115	80					142	87	105	78	142	86	104	72
16.	24.	140	95	110	80					130	84	100	83	121	82	95	75

		Average day-time ABP															
Subject no.		Baseline				5 mg enalapril				10 mg enalapril				20 mg enalapril			
	ID no.	SBP	DBP	MAP	HR	SBP	DBP	MAP	HR	SBP	DBP	MAP	HR	SBP	DBP	MAP	HR
1.	2.	156	91	113	77	137	85	102	79	133	83	100	74				
2.	3.	141	86	104	78	136	86	103	80	131	85	100	64				
3.	4.	149	90	110	91	141	83	102	94	141	78	99	93				
4.	5.	166	95	119	73	149	94	113	70	146	86	106	73				
5.	9.	153	97	116	73	150	95	113	70	144	93	110	72				
6.	10.	146	93	110	85	126	89	101	81	121	83	95	68				
7.	11.	138	91	107	84	131	86	101	66	126	85	99	62				
8.	13.	151	95	115	85					126	81	95	93	113	70	84	86
9.	14.	153	102	119	72					141	100	114	76	140	96	111	80
10.	16.	141	90	107	87					133	87	103	85	135	89	102	86
11.	17.	141	93	109	84					131	83	99	71	120	78	92	76
12.	18.	158	86	110	80					138	76	97	74	143	75	97	72
13.	19.	151	97	115	72					145	96	112	71	142	95	111	70
14.	20.	165	95	119	71					161	92	115	68	151	87	108	68
15.	21.	167	97	120	84					144	90	108	82	145	86	106	71
16.	24.	132	96	108	89					133	87	102	89	126	85	99	81

		Average night-time ABP															
Subject no.		Baseline				5 mg enalapril				10 mg enalapril				20 mg enalapril			
	ID no.	SBP	DBP	MAP	HR	SBP	DBP	MAP	HR	SBP	DBP	MAP	HR	SBP	DBP	MAP	HR
1.	2.	131	79	96	66	119	76	90	62	114	70	84	63				
2.	3.	135	85	102	67	126	78	94	67	111	69	83	53				
3.	4.	128	74	92	88	129	78	95	79	126	73	91	86				
4.	5.	132	78	96	67	113	72	85	66	101	64	76	59				
5.	9.	145	96	112	63	137	92	107	66	140	88	106	64				
6.	10.	137	85	102	76	118	83	95	61	114	81	92	54				
7.	11.	118	74	88	66	111	71	85	53	102	66	78	50				
8.	13.	126	77	93	71					106	72	85	86	91	54	66	85
9.	14.	133	89	104	56					120	90	104	69	121	89	99	75
10.	16.	116	74	88	78					124	80	95	69	104	71	82	73
11.	17.	133	88	103	72					124	84	97	57	125	83	97	71
12.	18.	158	86	110	78					131	69	89	53	118	64	82	55
13.	19.	142	94	110	59					144	93	110	59	136	89	105	60
14.	20.	164	85	111	53					154	85	108	55	141	83	103	58
15.	21.	153	82	105	74					136	79	98	71	137	85	102	73
16.	24.	156	92	113	62					124	80	95	71	113	74	87	65

Appendix G : Average BP loads at baseline and after 5-20 mg enalapril administration.

		Average 24-hour BP LOADS															
Subject no.		Baseline				5 mg enalapril				10 mg enalapril				20 mg enalapril			
		SBP		DBP		SBP		DBP		SBP		DBP		SBP		DBP	
ID no.		%	mmHg	%	mmHg	%	mmHg	%	mmHg	%	mmHg	%	mmHg	%	mmHg	%	MmHg
1.	2.	58	25	44	11	23	12	20	9	30	11	26	8				
2.	3.	48	20	42	11	41	11	40	6	28	7	30	7				
3.	4.	64	18	47	6	45	16	27	8	42	11	5	3				
4.	5.	90	22	54	14	58	17	42	10	40	27	33	11				
5.	9.	92	18	83	12	85	15	82	9	68	16	58	12				
6.	10.	67	18	57	7	75	15	22	9	8	10	20	7				
7.	11.	34	11	49	10	20	10	38	4	10	6	20	9				
8.	13.	67	16	55	11					18	18	6	5	6	4	9	15
9.	14.	89	15	85	12					83	13	81	14	53	9	79	8
10.	16.	42	14	51	8					27	10	36	6	34	8	48	9
11.	17.	58	12	71	8					20	9	26	8	16	12	25	6
12.	18.	100	23	32	6					50	13	14	9	52	16	7	3
13.	19.	86	15	81	10					63	13	67	10	58	12	67	11
14.	20.	95	30	59	12					96	16	32	5	64	14	27	7
15.	21.	97	27	69	11					57	11	39	55	62	13	38	4
16.	24.	37	20	88	9					32	7	17	7	3	3	30	3

Average Day-time BP LOADS

Subject no.		Baseline				5 mg enalapril				10 mg enalapril				20 mg enalapril			
		SBP		DBP		SBP		DBP		SBP		DBP		SBP		DBP	
ID no.		%	mmHg	%	mmHg	%	mmHg	%	mmHg	%	mmHg	%	mmHg	%	mmHg	%	MmHg
1.	2.	52	30	46	11	26	12	26	9	29	14	26	8				
2.	3.	40	22	34	12	32	12	37	6	31	8	34	8				
3.	4.	64	18	53	6	44	14	24	8	37	10	3	4				
4.	5.	90	24	58	14	71	17	50	10	50	27	41	11				
5.	9.	88	15	75	10	84	12	74	9	59	11	50	12				
6.	10.	57	19	53	7	12	14	50	9	6	12	13	7				
7.	11.	30	13	51	9	22	10	42	4	13	6	25	9				
8.	13.	65	18	59	12					18	18	6	5	6	4	9	15
9.	14.	89	16	88	12					83	13	81	14	53	9	79	8
10.	16.	43	16	58	8					27	10	36	6	34	8	48	9
11.	17.	53	9	70	7					20	9	26	8	16	12	25	6
12.	18.	100	19	20	3					50	13	14	9	52	16	7	3
13.	19.	83	13	76	9					63	13	67	10	58	12	67	11
14.	20.	93	25	55	15					96	16	32	5	64	14	27	7
15.	21.	96	25	74	12					57	11	39	55	62	13	38	4
16.	24.	22	8	84	8					32	7	17	7	3	3	26	3

Average Night-time BP LOADS

Subject no.		Baseline		5 mg enalapril		10 mg enalapril		20 mg enalapril									
		SBP	DBP	SBP	DBP	SBP	DBP	SBP	DBP								
ID no.		%	mmHg	%	mmHg	%	mmHg	%	mmHg	%	mmHg	%	mmHg	%	mmHg		
1.	2.	75	15	38	11	12	13	0	0	38	3	25	8				
2.	3.	75	15	75	10	75	10	50	6	12	1	12	4				
3.	4.	62	16	25	6	50	22	38	6	62	13	12	2				
4.	5.	88	13	38	10	12	22	12	5	0	0	0	0				
5.	9.	100	24	100	16	88	20	100	10	88	23	75	13				
6.	10.	100	17	67	8	25	18	62	9	12	6	50	6				
7.	11.	50	7	38	13	12	12	25	3	0	0	0	0				
8.	13.	75	10	38	5					12	15	25	4	12	15	0	0
9.	14.	88	12	75	13					38	5	88	12	38	9	62	14
10.	16.	38	4	25	6					88	9	50	4	0	0	12	1
11.	17.	75	18	75	12					75	8	62	9	62	12	62	9
12.	18.	100	38	75	10					88	14	0	0	62	12	0	0
13.	19.	100	22	100	14					88	27	75	19	88	18	75	13
14.	20.	100	44	75	7					87	35	62	7	8	24	62	9
15.	21.	100	33	50	6					100	16	50	8	100	17	62	11
16.	24.	89	31	100	12					62	11	50	6	12	9	12	4

Appendix H :Rate of office & 24-hour ABP reduction after 5-20 mg of enalapril administration.

Subject no.		Rate of Office BP reduction																							
		Office BP				Average 24-hour BP								Average day-time BP						Average night-time BP					
		5 mg		10 mg		20 mg		5 mg		10 mg		20 mg		5 mg		10 mg		20 mg		5 mg		10 mg		20 mg	
ID no.	sbp	dbp	sbp	dbp	sbp	dbp	sbp	dbp	sbp	dbp	sbp	dbp	sbp	dbp	sbp	dbp	sbp	dbp	sbp	dbp	sbp	dbp	sbp	dbp	
1.	2.	0.4	0	0.6	1.1			3.4	1	2.1	0.9			3.8	1.2	2.3	0.8			2.4	0.6	1.7	0.9		
2.	3.	0.6	-0.8	0.1	0.3			1.2	0.6	1.4	0.7			1	0	1	0.1			1.8	1.4	2.4	1.6		
3.	4.	2.2	0.2	0.9	1.5			1	0.6	0.6	0.8			1.6	1.4	0.8	1.2			-0.2	-0.8	0.2	0.1		
4.	5.	-4.6	0.6	1.4	0.4			3.6	0.4	2.4	1.1			3.4	0.2	2	0.9			3.8	1.2	3.1	1.4		
5.	9.	0.6	-0.2	1	0.3			0.8	0.6	0.7	0.6			0.6	0.4	0.9	0.4			1.6	0.8	0.5	0.8		
6.	10.	2.4	1.4	3.3	1.2			4	0.6	2.5	0.8			4	0.8	2.5	1			3.8	0.4	2.3	0.4		
7.	11.	1.2	0.4	2.7	2			1.4	0.8	1.4	0.7			1.4	1	1.2	0.6			1.4	0.6	1.6	0.8		
8.	13.			1.5	1	1.8	1.6			2.3	1.1	1.8	1.2			2.5	1.1	1.9	1.2			2	0.5	1.8	1.2
9.	14.			0.9	0.7	1	0.6			1.2	0.1	0.6	0.2			1.2	0.2	0.6	0.3			1.3	-0.1	0.6	0
10.	16.			2	0.6	1.2	0.6			0.3	0	0.4	0.1			0.8	0.3	0.3	0			-0.8	-0.6	0.6	0.2
11.	17.			3.1	1.4	2.2	1.2			0.9	0.7	0.8	0.6			1	1	1	0.8			0.9	0.4	0.4	0.2
12.	18.			0.6	0.5	0.3	0.4			2.2	1.2	1.2	0.8			2	1	0.8	0.6			2.7	1.7	2	1.1
13.	19.			-0.3	0	0	0.2			0.3	0.1	0.4	0.2			0.6	0.1	0.4	0.1			-0.2	0.1	0.3	0.2
14.	20.			0.7	0.4	1	1.2			0.7	0.2	0.8	0.4			0.4	0.3	0.7	0.4			1	0	1.2	0.1
15.	21.			-1.1	0.7	1	1			2.1	0.5	1	0.3			2.3	0.7	1.1	0.6			1.7	0.3	0.8	-0.2
16.	24.			1.7	1.5	1.2	1.2			1	1.1	1	0.6			-0.1	0.9	0.3	0.6			3.2	1.2	2.2	0.9

Appendix I : Area above the normal blood pressure versus time curve at baseline and after 5-20 mg enalapril administration.

Subject no.		Area above normal blood pressure							
		Baseline		5 mg enalapril		10 mg enalapril		20 mg enalapril	
ID no.		AUC _{SBP}	AUC _{DBP}	AUC _{SBP}	AUC _{DBP}	AUC _{SBP}	AUC _{DBP}	AUC _{SBP}	AUC _{DBP}
1.	2.	343	67	21	9	51	51		
2.	3.	261	84	81	23	14	19		
3.	4.	235	55	133	20	161	0		
4.	5.	496	108	190	88	168	44		
5.	9.	385	233	291	184	267	157		
6.	10.	253	105	19	77	16	52		
7.	11.	82	89	16	8	19	0		
8.	13.	234	111			21	21	0	0
9.	14.	291	243			114	252	50	167
10.	16.	101	50			56	22	25	53
11.	17.	159	127			60	49	54	46
12.	18.	586	44			142	0	128	0
13.	19.	333	213			276	195	197	160
14.	20.	714	130			580	100	355	45
15.	21.	674	133			210	44	235	56
16.	24.	289	188			45	33	3	14

Appendix J : Trough and peak antihypertensive effects and T : P ratio of 5-20 mg enalapril

Subject no.		Dose of enalapril																	
		5 mg enalapril OD						10 mg enalapril OD						20 mg enalapril OD					
		SBP reduction			DBP reduction			SBP reduction			DBP reduction			SBP reduction			DBP reduction		
		T	P	T:P	T	P	T:P	T	P	T:P	T	P	T:P	T	P	T:P	T	P	T:P
ID no.	mmHg	mmHg	%	mmHg	mmHg	%	mmHg	mmHg	%	mmHg	mmHg	%	mmHg	mmHg	%	mmHg	mmHg	%	
1.	2.	-21	-41	51	-6	-14	43	-12	-19	65	-13	-18	72						
2.	3.	-14	-30	47	-6	-16	38	-12	-28	43	-7	-21	33						
3.	4.	-9	-24	38	-8	-20	40	-11	-27	41	-6	-11	55						
4.	5.	-12	-22	55	-12	-24	50	-16	-37	43	-4	-10	40						
5.	9.	-8	-26	31	-5	-10	50	-15	-36	42	-10	-19	53						
6.	10.	-10	-31	32	-2	-20	40	-9	-24	37	-6	-16	38						
7.	11.	-15	-42	36	-5	-12	42	-13	-23	57	-8	-16	50						
8.	13.							-18	-39	46	-13	-28	46	-12	-26	46	-19	-25	76
9.	14.							-10	-30	33	-7	-14	50	-22	-29	76	-8	-11	73
10.	16.							-20	-43	47	-6	-15	40	-10	-23	43	-5	-12	42
11.	17.							-11	-25	44	-14	-19	74	-18	-41	44	-12	-19	63
12.	18.							-10	-46	22	-10	-18	56	-10	-29	34	-10	-19	53
13.	19.							-11	-23	48	-8	-13	62	-13	-24	54	-5	-8	63
14.	20.							-22	-40	55	-16	-26	62	-6	-10	60	-8	-13	62
15.	21.							-14	-26	54	-7	-11	64	-8	-13	60	-13	-22	59
16.	24.							-7	-19	37	-7	-21	33	-6	-14	43	-9	-21	43

BIOGRAPHY

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