

CHAPTER IV

RESULTS

The Effect of Intravenous ALK, 3 α -dihydrocadambine, on Systemic Blood Pressure and Heart Rate.

An IV injection of the ALK (3 α -dihydrocadambine) in various doses, 0.8, 1.6, 3.2, 6.4, 16.0, and 24.0 mg/kg B.W., caused dose-dependent reduction in both systolic and diastolic blood pressure (Figure 5,6,7). In terms of time-action, AP, as well as systolic and diastolic blood pressure began to fall immediately after injection and the peaks were always reached by 40 seconds after injection (Figure 5,8, Table 4). These effects were still evident about 30 minutes and then returned to base line. The corresponding values of the decreasing effect at each dose in percentage averaged were 4.19 ± 1.01 , 5.80 ± 0.86 , 17.06 ± 1.52 , 26.46 ± 2.82 , 25.65 ± 2.97 and 24.56 ± 4.83 for systolic blood pressure; in case of the diastolic blood pressure, values attained were 13.03 ± 1.11 , 18.61 ± 1.66 , 25.76 ± 1.05 , 43.19 ± 3.32 , 39.49 ± 4.89 and 37.03 ± 4.53 in doses ranging from 0.8 to 24.0 mg/kg B.W. (Table 1,2 and Figure 6,7). However, using student's paired *t*-test to analyze these data, significant reduction in systolic, diastolic and also MAP were observed in every doses when compared to those base-line measurements (Table 1,2,3 Figure 6,7).

The placebo injection of 10%PEG in NSS intravenously evoked no significant systemic change (Table 4 and Figure 8).

In Table 5., heart rate was also decreased initially by IV ALK and then followed by increasing when the maximum hypotensive effect was

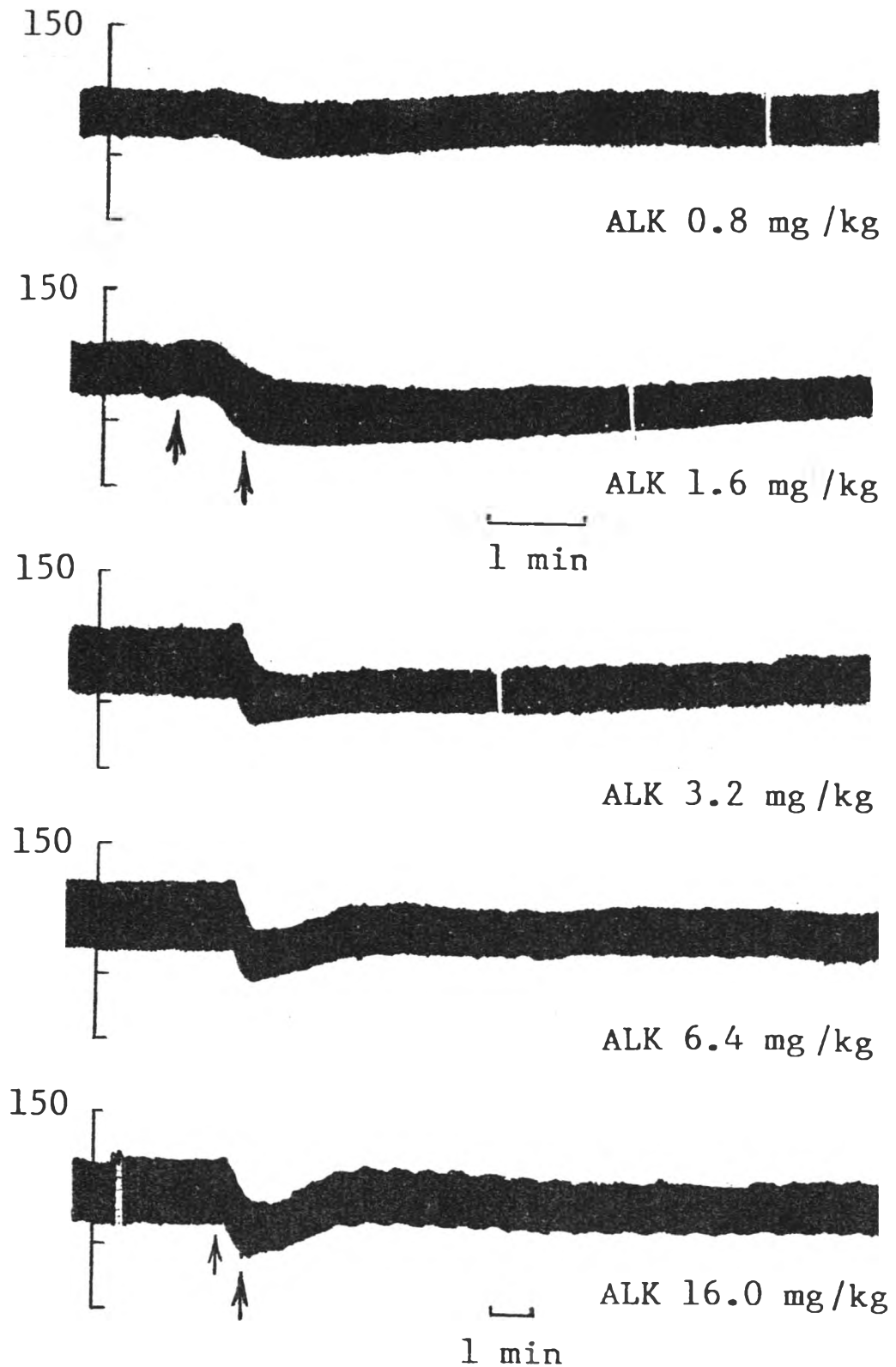


Figure 5. Changes in arterial pressure at base line after intravenous administration of ALK in various doses 0.8, 1.6, 3.2, 6.4 and 16.0 mg/kg.

DOSE OF ALK (mg/kg)	NUMBER OF ANIMAL	SYSTOLIC BLOOD PRESSURE (mmHg)			
		BEFORE ALK	AFTER ALK	DECREASE	%DECREASE
0.8	8	126.63 ± 12.53	121.25 ± 11.87	5.38 ± 1.39	4.19 ± 1.01****
1.6	10	112.70 ± 11.15	106.20 ± 10.59	6.50 ± 1.25	5.80 ± 0.86*****
3.2	10	111.50 ± 6.50	92.60 ± 5.75	18.90 ± 1.85	17.06 ± 1.52*****
6.4	8	103.63 ± 7.08	76.00 ± 5.49	27.63 ± 3.41	26.46 ± 2.82*****
16.0	8	175.25 ± 14.53	94.25 ± 12.29	31.00 ± 4.37	25.65 ± 2.97*****
24.0	8	136.63 ± 11.27	100.38 ± 6.41	36.25 ± 9.97	24.56 ± 4.83****

Table 1. Decreasing effect of intravenous ALK on systolic blood pressure in anaesthetized tree shrews. Values represent the mean ± S.E.M. Significant symbols: **** $p < 0.005$; ***** $p < 0.0005$, Student's paired t -test.

DOSE OF ALK (mg/kg)	NUMBER OF ANIMAL	DIASTOLIC BLOOD PRESSURE (mmHg)			
		BEFORE ALK	AFTER ALK	DECREASE	%DECREASE
0.8	8	59.88 ± 4.82	52.00 ± 4.17	7.88 ± 0.93	13.03 ± 1.11*****
1.6	10	65.40 ± 8.49	53.60 ± 7.72	11.80 ± 1.36	18.61 ± 1.66*****
3.2	10	74.70 ± 7.84	58.20 ± 7.42	16.50 ± 0.65	25.76 ± 1.05*****
6.4	8	51.38 ± 5.97	29.25 ± 3.71	22.13 ± 3.49	43.19 ± 3.32*****
16.0	8	73.25 ± 12.37	46.13 ± 10.66	27.13 ± 3.73	39.49 ± 4.89*****
24.0	8	78.25 ± 8.02	49.00 ± 6.23	29.25 ± 5.53	37.03 ± 4.53*****

Table 2. Decreasing effect of intravenous ALK on diastolic blood pressure in anaesthetized tree shrews. Values represent the mean ± S.E.M. Significant symbols: ***** $p < 0.0005$, Student's paired t - test.

DOSE OF ALK (mg/kg)	NUMBER OF ANIMAL	MEAN ARTERIAL PRESSURE (mmHg)			
		BEFORE ALK	AFTER ALK	DECREASE	%DECREASE
0.8	8	78.50 ± 5.06	71.89 ± 4.55	6.61 ± 0.69	8.38 ± 0.55*****
1.6	10	84.27 ± 9.30	75.64 ± 8.73	8.63 ± 0.89	10.66 ± 1.02*****
3.2	10	81.69 ± 5.91	66.66 ± 5.44	15.03 ± 0.77	18.97 ± 1.15*****
6.4	8	68.79 ± 5.98	44.83 ± 3.99	23.96 ± 3.28	34.46 ± 2.86*****
16.0	8	90.59 ± 12.79	62.15 ± 10.76	28.44 ± 3.45	32.95 ± 3.63*****
24.0	8	97.73 ± 8.78	66.13 ± 6.09	31.60 ± 6.88	31.15 ± 4.39*****

Table 3. Decreasing effect of intravenous ALK on mean arterial pressure in anaesthetized tree shrews. Values represent the mean ± S.E.M. Significant symbols: ***** $P < 0.0005$, Student's paired t - test.

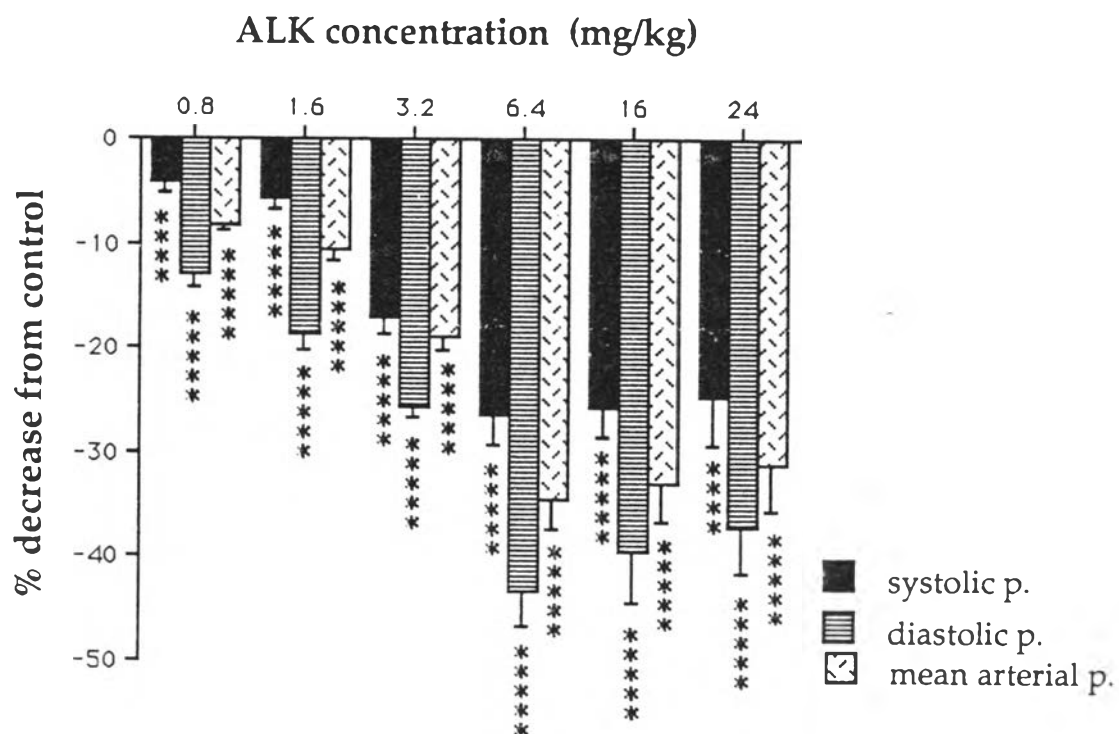


Figure 6. Dose-dependent decreases in systolic, diastolic and mean arterial pressure produced by intravenous administration of ALK. The ordinate scale is percent decrease in arterial pressure; the abscissa scale is dose of ALK in mg/kg B.W. Standard errors of the mean are indicated on each histogram.

Significant symbols : **** $p < 0.005$

***** $p < 0.0005$, Student's paired *t*-test

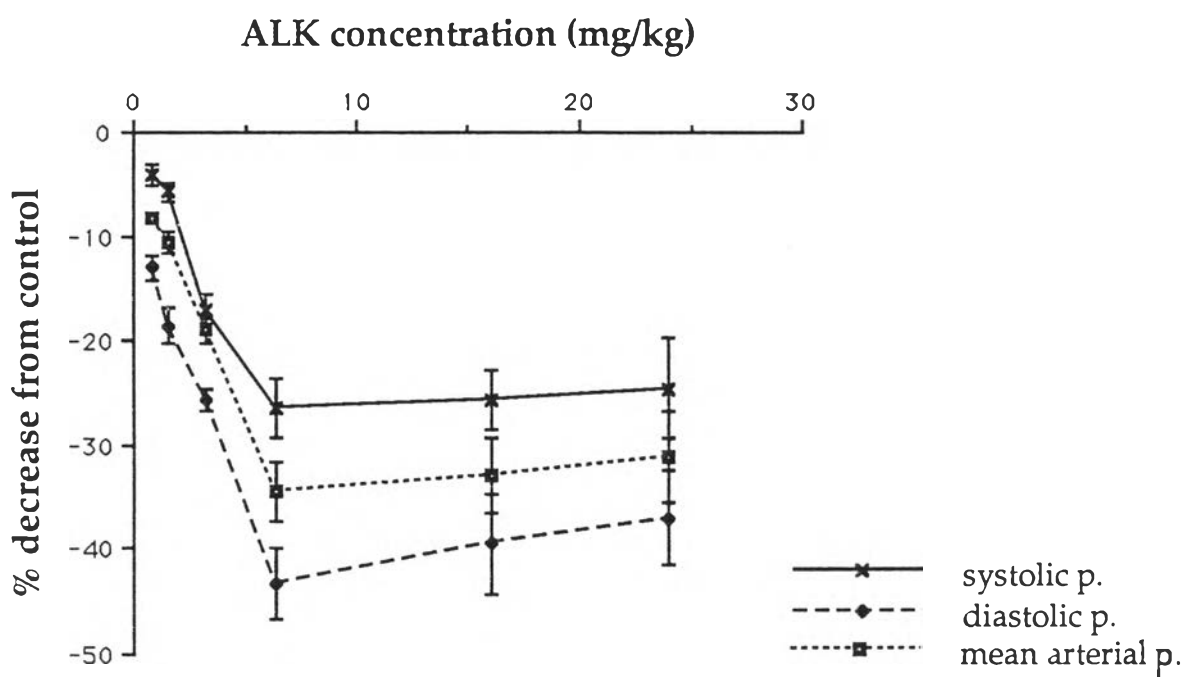


Figure 7. The concentration response curves for hypotensive effect after intravenous administration of ALK 0.8, 1.6, 3.2, 6.4, 16.0 and 24.0 mg/kg B.W. The ordinate scale is percent decrease in arterial pressure; the abscissa scale is dose of ALK in mg/kg B.W. Values represent the mean \pm S.E.M.

DOSE OF ALK (mg/kg)	%CHANGE IN ARTERIAL PRESSURE AFTER ALK ADMINISTRATION						
	0.6 min	1 min	2 min	3 min	5 min	10 min	20 min
0.0 (10% PEG)							
SYSTOLIC P.	-1.10±0.75	1.00±1.63	-0.49±0.99	-1.79±1.38	-1.40±1.58	1.01±3.08	5.60±5.59
DIASTOLIC P.	-2.05±2.07	-3.70±1.83	-3.55±4.04	-4.28±3.04	-3.38±3.45	1.53±4.49	0.73±3.79
MAP	-1.78±1.03	-2.38±1.71	-2.17±1.94	-3.03±1.98	-2.45±2.10	1.82±3.52	2.67±4.39
3.2							
SYSTOLIC P.	-10.17±1.35	-10.52±1.52	-13.23±1.92	-12.16±2.15	-10.33±2.02	-10.28±1.99	-9.94±3.14
DIASTOLIC P.	-28.52±3.20	-27.48±3.26	-22.73±3.41	-16.58±3.39	-12.37±2.56	-8.73±2.77	-7.68±2.36
MAP	-18.87±2.07	-18.63±2.25	-17.75±2.59	-14.31±2.64	-11.26±2.19	-9.48±2.17	-8.76±2.53
6.4							
SYSTOLIC P.	-10.94±6.56	-14.68±5.73	-18.69±3.28	-16.88±4.91	-14.08±5.36	-13.85±1.44	-13.32±2.13
DIASTOLIC P.	-31.07±9.67	-33.58±8.77	-23.91±8.41	-16.09±9.19	-13.44±7.57	-11.28±6.29	-7.82±5.22
MAP	-20.89±8.00	-23.89±6.77	-20.12±4.62	-16.13±6.66	-13.58±6.29	-13.69±4.69	-10.81±3.57

Table 4. Comparison of the percent changes in arterial pressure produced by intravenous ALK 0.0 (10% PEG), 3.2 and 6.4 mg/kg as function of the time. Values represent the mean ± S.E.M.

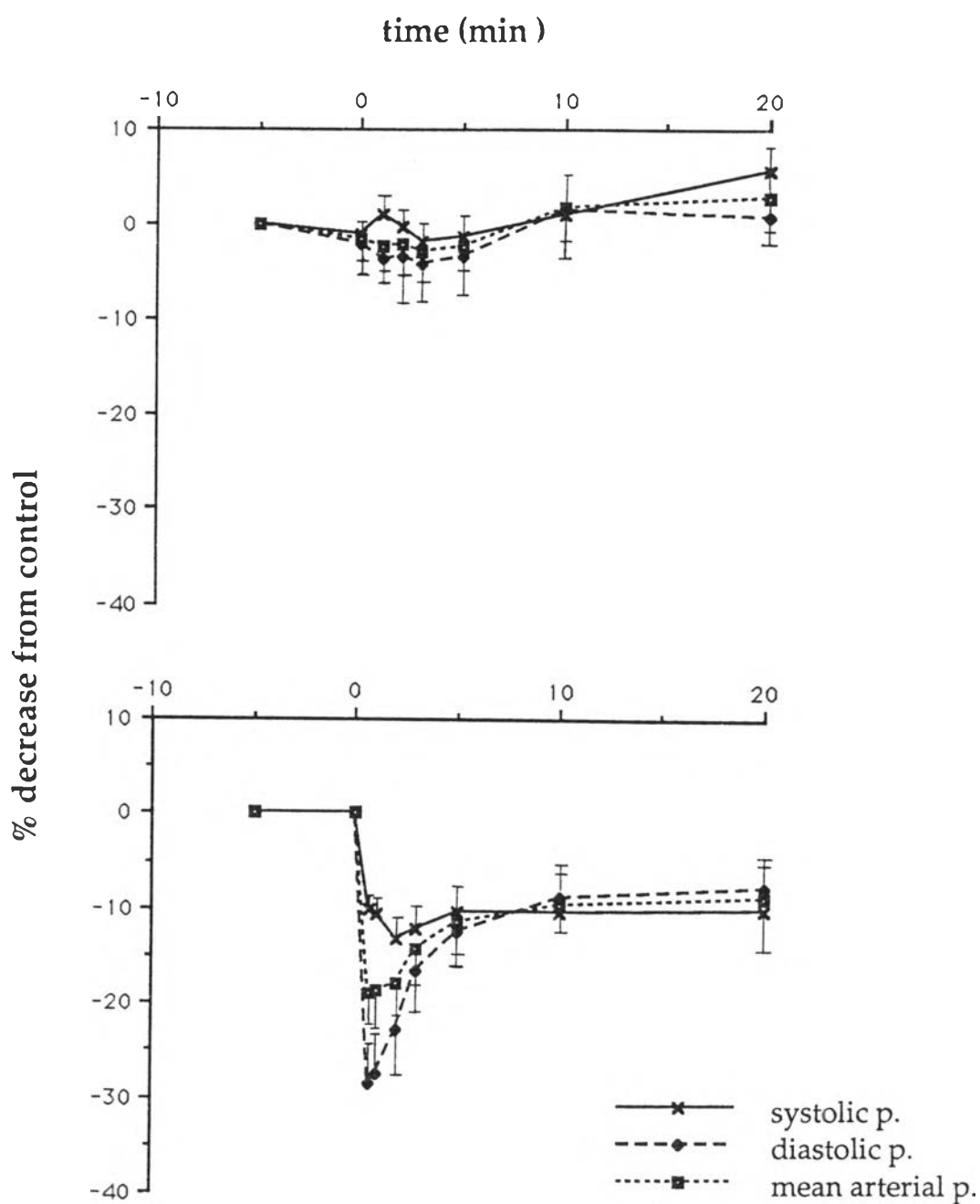


Figure 8. Representative experiment depicting the changes in systolic, diastolic and mean arterial pressure at base line (< 0 min) and for 0-20 min after intravenous 10% PEG (top panel) and ALK 3.2 mg/kg in 10% PEG (bottom panel) administration. Values represent the mean \pm S.E.M.

observed. However, the statistically significant decreased was found in the dose 3.2 and 6.4 mg/kg at initially hypotensive effect. Where as at the higher dose, 16.0 mg/kg, the heart rate increased significantly from control (student's paired *t*- test, $p < 0.05$).



DOSE OF ALK (mg/kg)	HEART RATE (BEATS/MIN)				
	CONTROL	INITIAL	%CHANGE	MAXIMUM	%CHANGE
20%PEG	315.00 ± 10.25	312.00 ± 14.69	-1.08 ± 1.81	329.50 ± 20.65	5.05 ± 3.28
0.8	370.00 ± 50.00	358.50 ± 43.50	-2.95 ± 1.35	372.00 ± 42.00	0.87 ± 2.27
1.6	301.50 ± 13.50	293.50 ± 11.50	-2.65 ± 0.55	299.00 ± 11.00	-0.79 ± 0.79
3.2	292.86 ± 24.46	284.57 ± 24.56	-2.97 ± 0.68 *	297.43 ± 24.73	2.27 ± 0.97 *
6.4	370.00 ± 28.57	361.20 ± 27.52	-2.33 ± 0.96 *	362.40 ± 22.01	-1.15 ± 2.57
16.0	402.00 ± 36.49	412.00 ± 36.72	2.53 ± 0.57 *	422.00 ± 34.87	5.14 ± 0.96 *
24.0	388.00 ± 26.46	398.00 ± 26.00	2.62 ± 1.08	413.00 ± 21.17	6.46 ± 2.82

Table 5. The effect of intravenous ALK in various doses on heart rate in anaesthetized tree shrews.

Values represent the mean ± S.E.M. Significant symbol: * $p < 0.05$, Student's paired t -test

INITIAL = at initial hypotensive effect of ALK

MAXIMUM = maximum hypotensive effect of ALK

The Effect of Intracerebroventricular ALK, 3 α - dihydrocadambine, on Systemic Blood Pressure and Heart Rate.

The effects of intracerebroventricular ALK (3 α -dihydrocadambine) in various doses 0.4, 0.8, 1.6 and 3.2 mg/kg B.W. on AP were shown in Figures 9 and 10. The decreasing effect was observed in both systolic and diastolic blood pressure. Nearly about 20 minutes after injection is the time at which the peak effect of ALK was observed following VENT administration (Figure 9,11 and Table 9). The corresponding values of the decreasing effect at each dose in percentage averaged were 28.30 ± 4.99 , 23.94 ± 5.93 , 26.44 ± 3.77 and 24.82 ± 4.06 for systolic blood pressure; in case of the diastolic blood pressure values attained were 29.62 ± 8.33 , 23.96 ± 6.27 , 26.52 ± 4.21 and 26.78 ± 4.14 in doses ranging from 0.4 to 3.2 mg/kg B.W.(Table 6,7 and Figure 10). When comparing these data to those base-line measurements, significant reduction in systolic, diastolic and also MAP were observed in every doses (Table 6,7,8 and Figure 10)(paired t -test). However, in Figure 10 and Tables 6,7, it was also found that the placebo injection of 20% PEG aCSF intraventricularly itself evoked significant systemic change, as well as systolic and diastolic blood pressure ($p < 0.005$, paired t -test). While the peak effect was observed about 10 minutes after injection(Table 9, Figure 11).

The effect of VENT doses of ALK on heart rate was shown in Table 10. The decreasing effect was observed and the peak were reached about 10 minutes in the placebo group, while, in doses of ALK its were reached about 20 minutes after injection. When these data were analyzed by using the student's paired t - test, significant reduction ($p < 0.05$) in heart rate were observed almost in every doses except the dose of 1.6 mg/kg B.W..

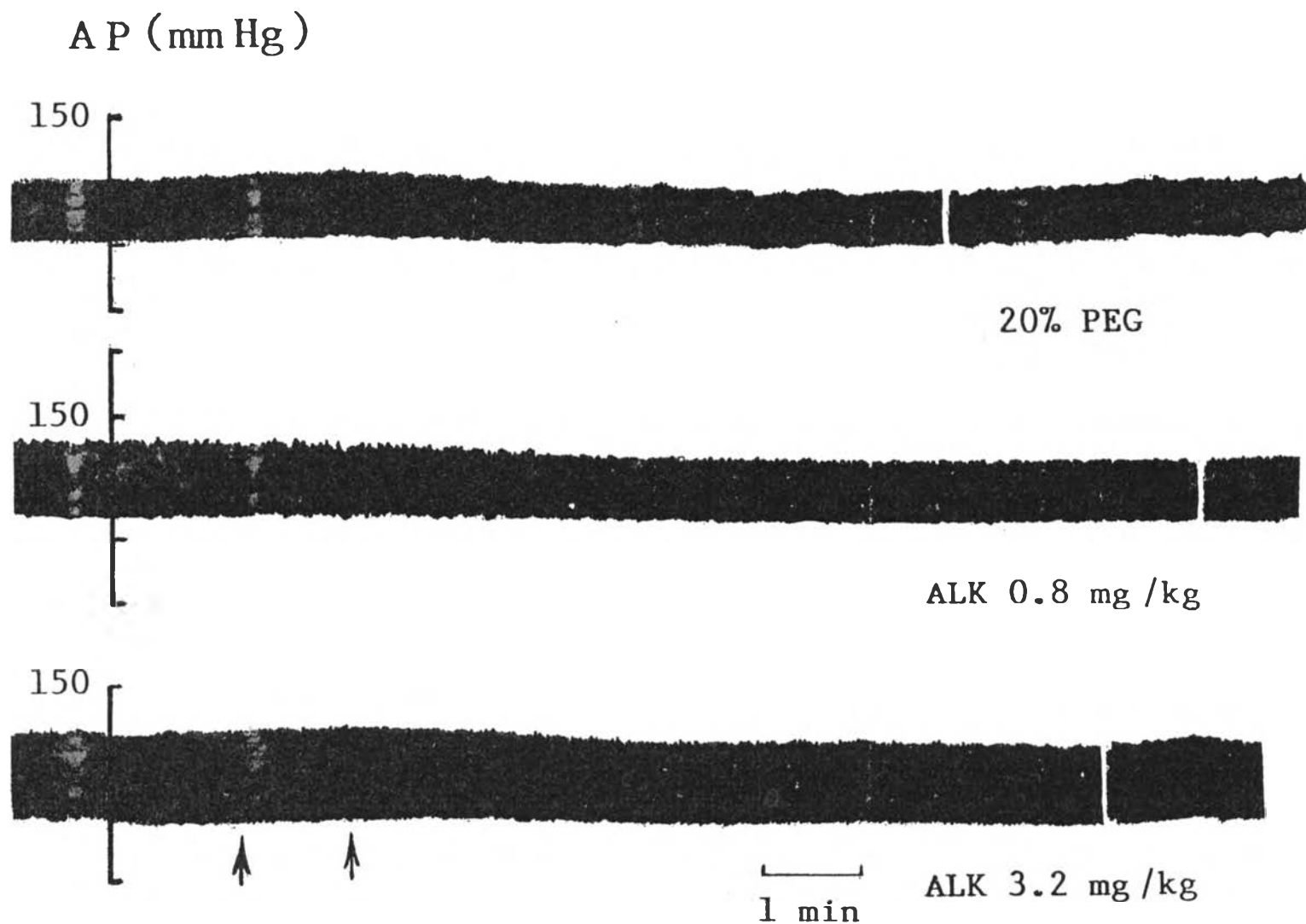


Figure 9. Changes of arterial pressure at base line after intra-ventricular administration of ALK in doses 0.0 (20% PEG), 0.8 and 3.2 mg/kg.

DOSE OF ALK (mg/kg)	NUMBER OF ANIMAL	SYSTOLIC BLOOD PRESSURE (mmHg)			
		BEFORE ALK	AFTER ALK	DECREASE	%DECREASE
20%PEG	5	94.60 ± 20.05	75.80 ± 17.24	18.80 ± 3.87	20.66 ± 2.58****
0.4	5	125.20 ± 15.15	89.40 ± 11.17	35.80 ± 7.89	28.30 ± 4.99****
0.8	5	145.80 ± 16.39	110.60 ± 13.26	35.20 ± 10.23	23.94 ± 5.93***
1.6	5	117.40 ± 11.97	85.00 ± 6.24	32.40 ± 6.65	26.44 ± 3.77****
3.2	5	129.20 ± 10.83	97.20 ± 9.97	32.00 ± 6.36	24.82 ± 4.06****

Table 6. Decreasing effect of intraventricular ALK on systolic blood pressure in anaesthetized tree shrews. Values represent the mean ± S.E.M.
Significant symbols: *** $p < 0.01$; **** $p < 0.005$, Student's paired t - test.

DOSE OF ALK (mg/kg)	NUMBER OF ANIMAL	DIASTOLIC BLOOD PRESSURE (mmHg)			
		BEFORE ALK	AFTER ALK	DECREASE	%DECREASE
20%PEG	5	42.40 ± 6.37	31.00 ± 6.39	11.40 ± 2.25	28.34 ± 6.20***
0.4	5	66.60 ± 10.70	49.00 ± 10.77	17.60 ± 3.20	29.62 ± 8.33**
0.8	5	64.00 ± 6.72	49.20 ± 6.94	14.80 ± 3.95	23.96 ± 6.27***
1.6	5	57.40 ± 6.57	42.20 ± 5.47	15.20 ± 2.48	26.52 ± 4.21****
3.2	5	74.40 ± 9.39	55.60 ± 9.06	18.80 ± 2.63	26.78 ± 4.14****

Table 7. Decreasing effect of intraventricular ALK on diastolic blood pressure in anaesthetized tree shrews. Values represent the mean ± S.E.M. Significant symbols: ** $p < 0.025$; *** $p < 0.01$; **** $p < 0.005$, Student's paired t -test.

DOSE OF ALK (mg/kg)	NUMBER OF ANIMAL	MEAN ARTERIAL PRESSURE (mmHg)			
		BEFORE ALK	AFTER ALK	DECREASE	%DECREASE
20%PEG	5	59.80±11.11	45.94±9.87	13.86±2.46	24.36 ± 4.12****
0.4	5	86.12±12.01	62.46±10.83	23.66±4.49	28.64 ± 6.17****
0.8	5	91.26±9.69	69.68±8.69	21.58±5.99	23.86 ± 6.01***
1.6	5	77.42±7.65	56.46±5.34	20.96±3.71	26.50 ± 3.85****
3.2	5	92.66±9.41	69.48±9.19	23.18±3.76	25.80 ± 3.91****

Table 8. Decreasing effect of intraventricular ALK on mean arterial pressure in anaesthetized tree shrews. Values represent the mean \pm S.E.M.
Significant symbols: *** $p < 0.01$; **** $p < 0.005$; Student's paired t -test.

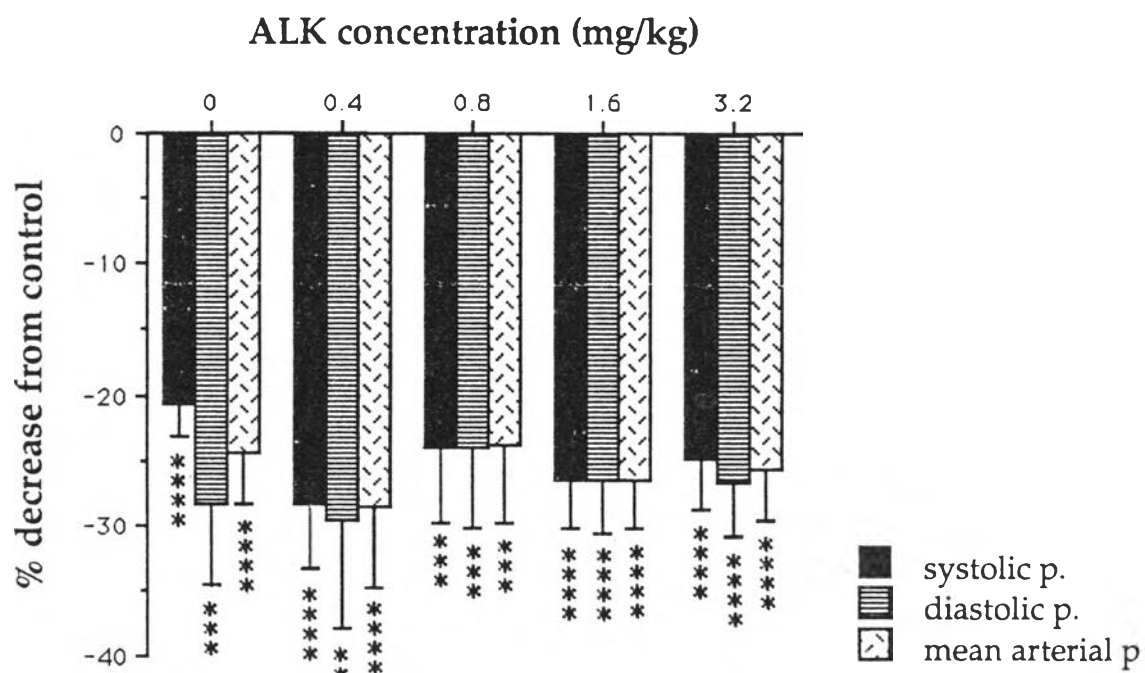


Figure 10. The mean of percent decreases in systolic, diastolic and mean arterial pressure produced by intraventricular administration of ALK. The ordinate scale is percent decrease in arterial pressure; the abscissa scale is dose of ALK in mg/kg B.W. Standard errors of the mean are indicated on each histogram.

Significant symbols : ** $p < 0.025$

: *** $p < 0.01$

: **** $p < 0.005$, Student's paired t -test

DOSE OF ALK (mg/kg)	%CHANGE IN ARTERIAL PRESSURE AFTER ALK ADMINISTRATION						
	0 min	1 min	3 min	5 min	10 min	20 min	30 min
0.0 (10% PEG)							
SYSTOLIC P.	0.00	3.20 ±0.46	11.60 ±3.46	14.35 ±2.81	18.06 ±2.92	13.40 ±4.30	7.23 ±3.62
DIASTOLIC P.	0.00	8.97 ±2.51	18.47 ±10.23	20.58 ±8.29	20.50 ±7.16	15.05 ±6.40	5.33 ±3.00
MAP	0.00	5.93 ±1.03	14.90 ±6.69	17.33 ±5.43	19.22 ±4.67	14.28 ±4.02	6.43 ±0.57
3.2							
SYSTOLIC P.	0.53 ±0.53	1.38 ±0.49	7.90 ±1.71	17.95 ±3.07	28.70 ±2.23	31.80 ±3.65	26.37 ±1.62
DIASTOLIC P.	1.73 ±1.73	3.73 ±2.28	9.45 ±1.63	20.33 ±3.62	30.40 ±3.42	35.87 ±5.25	28.53 ±3.61
MAP	1.08 ±1.08	2.53 ±1.33	8.68 ±1.17	19.18 ±3.13	29.57 ±2.23	34.06 ±4.44	27.50 ±2.73

Table 9. Comparison of the percent changes in arterial pressure produced by intraventricular ALK 0.0 (20% PEG) and 3.2 mg/kg as function of the time. Values represent the mean ± S.E.M.

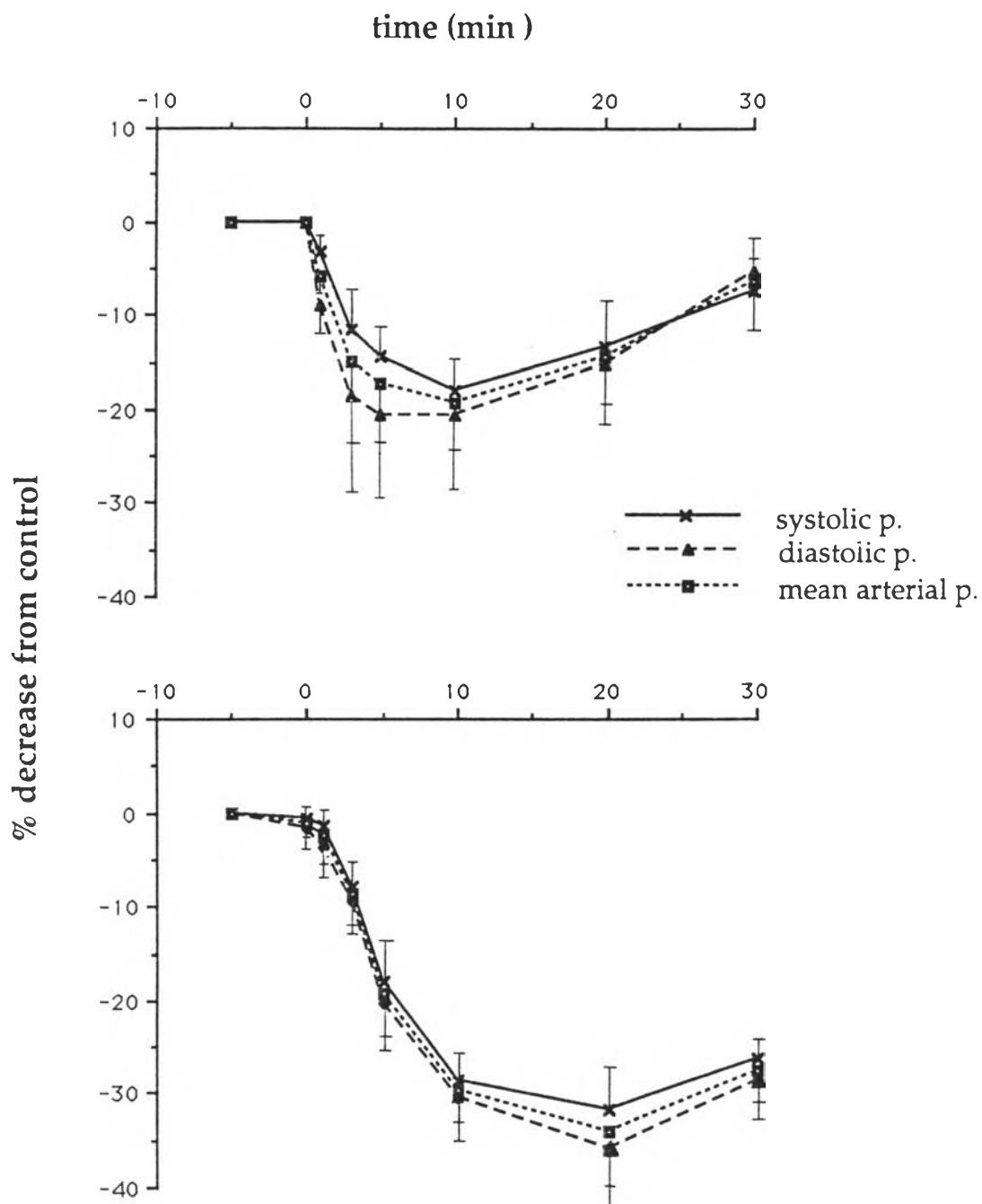


Figure 11. Representative experiment depicting the changes in systolic, diastolic and mean arterial pressure at base line (< 0 min) and for 0-30 min after intraventricular 20%PEG (top panel) and ALK 3.2 mg/kg in 20% PEG (bottom panel) administration. Values represent the mean \pm S.E.M.

DOSE OF ALK (mg/kg)	HEART RATE (BEATS/MIN)						
	CONTROL	5 min	%CHANGE	15 min	%CHANGE	25 min	%CHANGE
20%PEG	326.66 ±17.64	318.00±9.17	-2.29±3.96	332.00±1.73	2.33±6.49	344.00±4.00	10.47±2.83*
0.4	368.00± 26.23	336.00±30.19	-8.88±2.49 *	324.00±30.19	-12.22± 1.83*	328.67±28.39	-10.87±1.50*
0.8	392.00± 32.00	350.67±18.52	-10.06±3.64	324.00±6.93	-16.54±4.98 *	327.33±16.34	-15.16±9.14
1.6	365.00± 5.00	329.00±19.00	-9.76±6.46	297.00±27.00	-18.52± 8.52	302.00±22.00	-17.16±7.16
3.2	380.00 ±10.00	320.00±10.00	-15.80±0.42 *	285.00±15.00	-25.06±1.98 *	305.00±25.00	-19.85±4.47*

Table 10. The absolute values and the percent changes of heart rate before and after intraventricular administration in various doses of ALK. Values represent the mean ± S.E.M. Significant symbol: * $p < 0.05$, Student's paired t - test.

The Hypotensive Effect of Intravenous ALK. 3 α -dihydrocadambine. during FN Stimulation.

Figure 12. shows the fastigial pressor response during FN stimulation with the exploratory stimulus consisting of 0.1 mS in duration , at a frequency of 50 Hz and stimulus current of 0.15 mA. It resulted in significant increase in both systolic and diastolic blood pressure (Table 11) which began to elevate within 2-3 seconds of the onset of the stimulus, and then rised rapidly to a peak. During the stimulation continued, the AP was sustained and rapidly declined to control level after the stimulation was terminated.

The effect of ALK. 3 α -dihydrocadambine, on FPR when the AP was sustained during FN stimulation were shown in Figure 13 and Table 11. It was found that after ALK injection, the AP decreased immediately. There were statistically significant decreases after the dose of ALK 3.2 mg/kg and also the most effective dose 6.4 mg/kg were administered, when the changeable values of AP were compared to the AP during FN stimulation before administration of ALK ($p < 0.05$) (Table 11).

Furthermore, when compared the hypotensive effect of the ALK during basal AP to during FPR at the same dose, there were no significant systemic change between them. Except in systolic blood pressure of the dose 3.2 mg/kg ($p < 0.05$, unpaired *t*-test) (Figure 14 and Table 12, 13, 14).

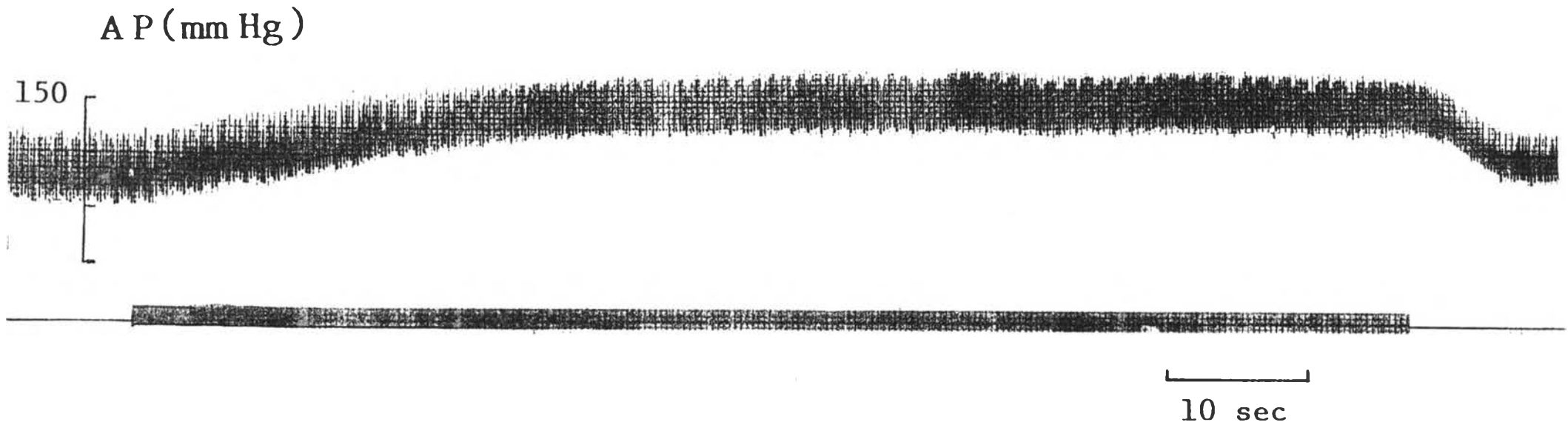


Figure 12. Fastigial pressor responses during FN stimulation. The exploratory stimulus consist of duration 0.1 mS, frequency 50 Hz and stimulus current 0.15 mA.

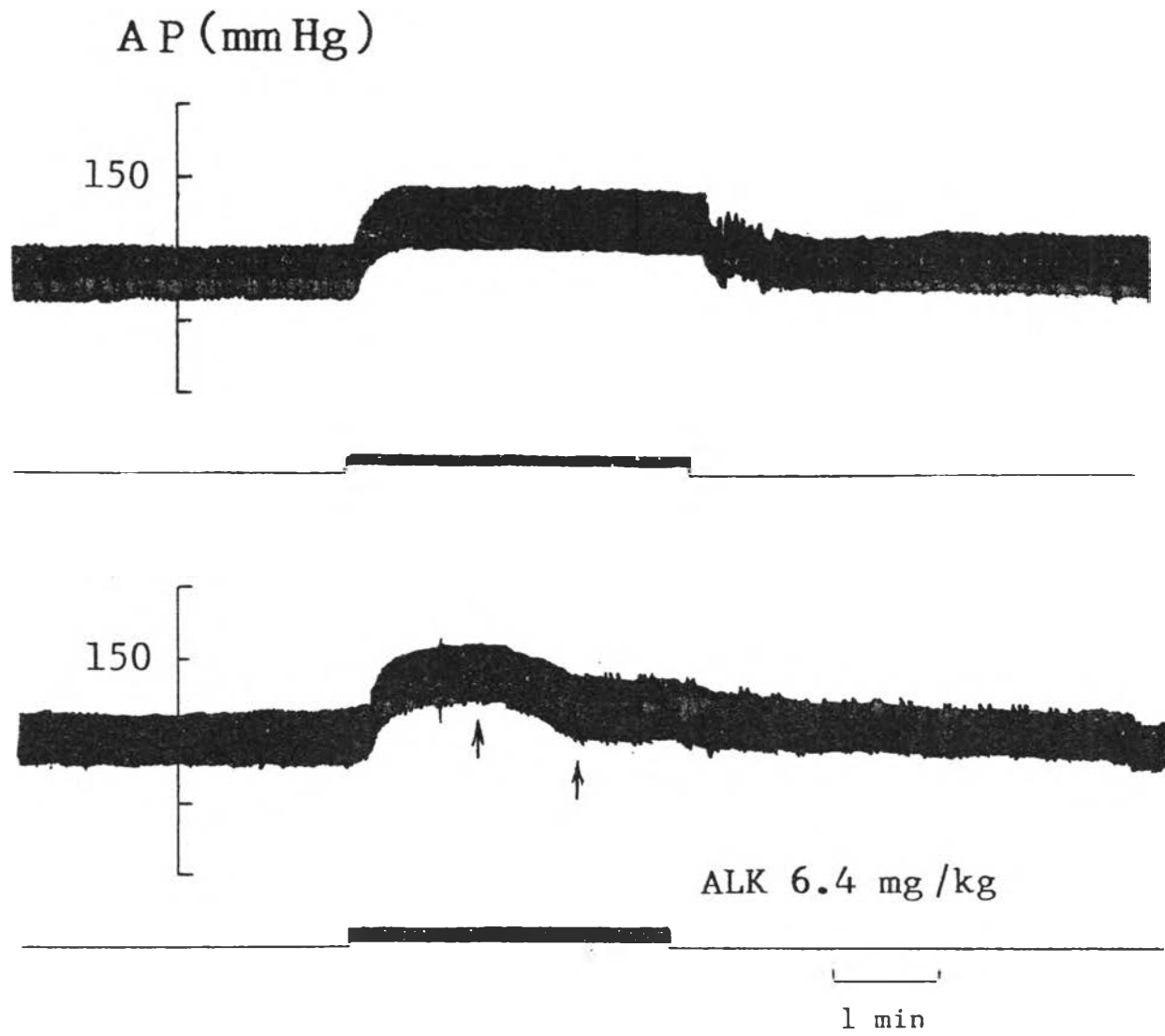


Figure 13. Records showing fastigial pressor response in anaesthetized tree shrews (top panel) and its attenuation by intravenous ALK 6.4 mg/kg (bottom panel).

DOSE OF ALK (mg/kg)	NUMBER OF ANIMAL	ARTERIAL PRESSURE (mmHg)						
		CONTROL	STIMULATE	INCREASE	% INCREASE	AFTER ALK	DECREASE	% DECREASE
SYSTOLIC P.								
3.2	5	113.60 ± 14.55	142.00 ± 17.65	28.40 ± 8.19	27.68 ± 9.98*	128.80 ± 15.00	13.20 ± 2.71	8.98 ± 0.75*****
6.4	5	124.00 ± 8.67	156.60 ± 4.28	32.60 ± 6.12	27.96 ± 6.68***	130.20 ± 7.78	24.60 ± 4.63	17.06 ± 3.27****
DIASTOLIC P.								
3.2	5	70.60 ± 10.13	93.00 ± 6.59	22.40 ± 4.15	42.40 ± 19.21*	72.60 ± 6.73	20.40 ± 2.01	22.34 ± 2.48*****
6.4	5	77.40 ± 2.42	108.40 ± 5.66	31.00 ± 7.61	41.02 ± 10.38***	70.20 ± 9.55	38.20 ± 5.67	36.08 ± 6.08****
MAP								
3.2	5	84.94 ± 11.35	109.32 ± 9.79	24.38 ± 4.91	35.18 ± 14.05*	91.34 ± 9.14	17.98 ± 1.45	16.70 ± 1.34*****
6.4	5	92.96 ± 4.35	124.46 ± 3.75	31.50 ± 6.78	35.32 ± 8.84***	90.20 ± 8.16	34.26 ± 5.30	27.94 ± 4.82****

Table 11. Comparison of the effect of FN stimulation on arterial pressure and the effect of intravenous ALK 3.2 and 6.4 mg/kg during FPR. Values represent the mean ± S.E.M.

Significant symbols

: * $p < 0.5$; *** $p < 0.01$, significant increase from normal control

: ***** $p < 0.005$, **** $p < 0.0005$, significant decrease from stimulate control

TREATMENT	NUMBER OF ANIMAL	SYSTOLIC BLOOD PRESSURE (mmHg)		
		BEFORE ALK	AFTER ALK	% DECREASE
ALK 3.2 mg/kg	10	111.50±6.50	92.60±5.75	17.06±1.52
ALK 3.2 mg/kg DURING FN STIMULATION	5	142.00±17.65 (113.60±14.55)	128.80±15.00	8.98±0.75*
ALK 6.4 mg/kg	8	103.63±7.08	76.00±5.49	26.46±2.82
ALK 6.4 mg/kg DURING FN STIMULATION	5	156.60±4.28 (124.00±8.67)	130.20±7.78	17.06±3.27

Table 12. Comparison of the effect of intravenous ALK on basal systolic blood pressure and during FN stimulation at doses 3.2 and 6.4 mg/kg (mean ±S.E.M.). Numbers in parentheses represent systolic blood pressure before FN stimulation. * = significantly different ($p < 0.05$) from basal blood pressure group, Student's unpaired t -test.

TREATMENT	NUMBER OF ANIMAL	DIASTOLIC PRESSURE (mmHg)		
		BEFORE ALK	AFTER ALK	% DECREASE
ALK 3.2 mg/kg	10	74.70±7.84	58.20±7.42	25.76±1.05
ALK 3.2 mg/kg DURING FN STIMULATION	5	93.00±6.59 (70.60±10.13)	72.60±6.73	22.34±2.48
ALK 6.4 mg/kg	8	51.38±5.97	29.25±3.71	43.19±3.32
ALK 6.4 mg/kg DURING FN STIMULATION	5	108.40±5.66 (77.40±2.42)	70.20±9.55	36.08±6.08

Table 13. Comparison of the effect of intravenous ALK on basal diastolic blood pressure and during FPR at doses 3.2 and 6.4 mg/kg (mean ±S.E.M.). Numbers in parentheses represent diastolic blood pressure before FN stimulation.



TREATMENT	NUMBER OF ANIMAL	DIASTOLIC PRESSURE (mmHg)		
		BEFORE ALK	AFTER ALK	% DECREASE
ALK 32 mg/kg	10	81.69± 5.91	66.66±5.44	18.97±1.15
ALK 32 mg/kg DURING FN STIMULATION	5	109.32± 9.79 (84.94 ±11.35)	91.34± 9.14	16.70±1.34
ALK 64 mg/kg	8	68.79±5.98	44.83±3.99	34.46±2.86
ALK 64 mg/kg DURING FN STIMULATION	5	124.46±3.75 (92.96±4.35)	90.20±8.16	27.94±4.82

Table 14. Comparison of the effect of intravenous ALK on basal mean arterial pressure and during FPR at doses 3.2 and 6.4 mg/kg (mean ±S.E.M.). Numbers in parentheses represent mean arterial pressure before FN stimulation.

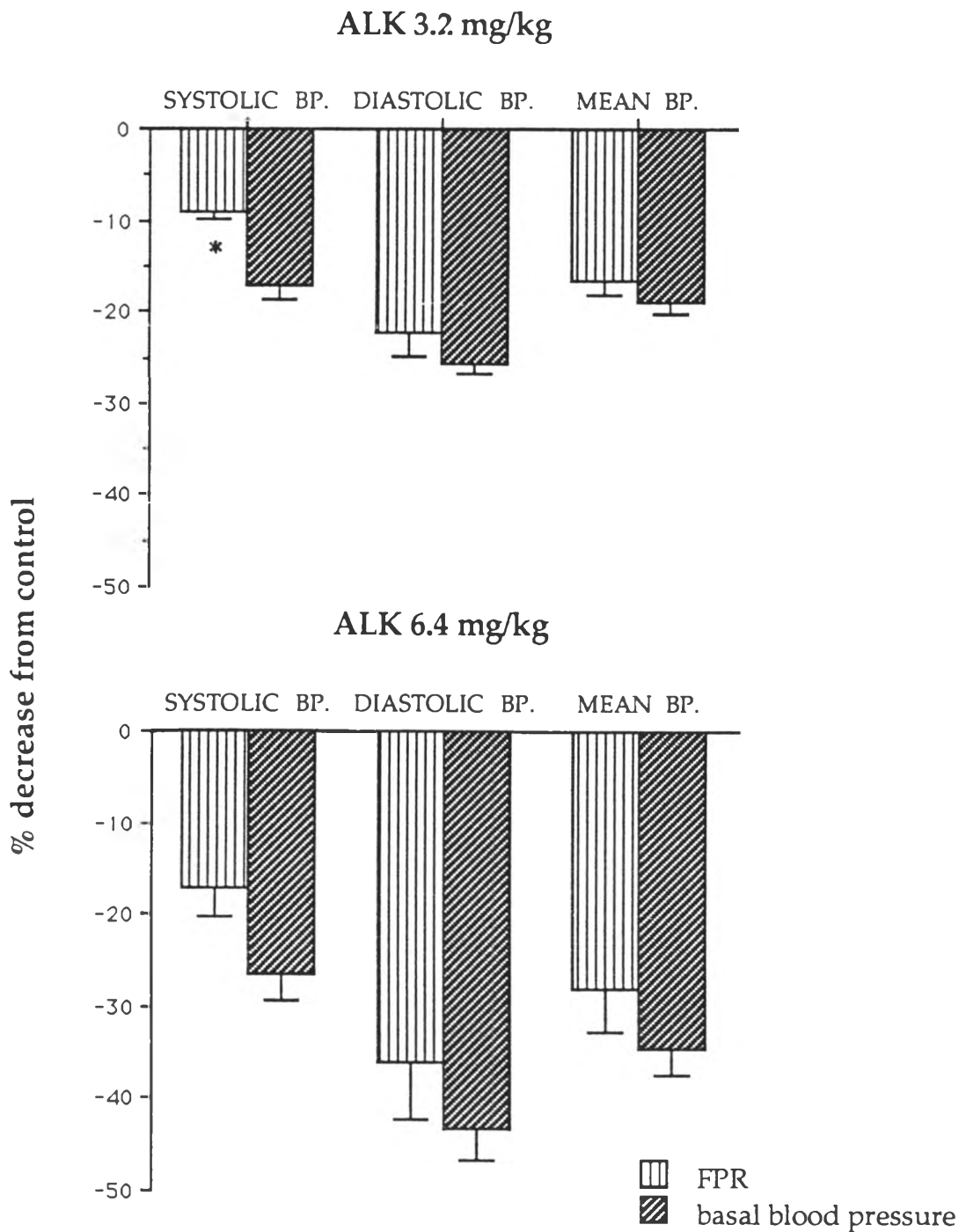


Figure 14. Comparison of the effect of intravenous ALK on basal blood pressure and during FPR at doses 3.2 mg/kg (top panel) and 6.4 mg/kg (bottom panel). Standard errors of the mean are indicated on each histogram. * : Significant difference ($p < 0.05$)