

C O N T E N T S

	Page
INTRODUCTION	1
Historical Review	1
Histogenesis	4
The discovery of two different chromaffin cells in the adrenal medulla	8
Adrenaline and noradrenaline hormones ...	13
Chromaffin reaction	18
Histology of the adrenal medulla	19
Blood supply	21
Comparative biological study of man and rat adrenals	22
Effect of unilateral adrenalectomy	25
AIM OF WORK	27
MATERIAL AND METHODS	28
Material	28
Methods	29
Fixation: 1) Buffered dichromate solution	30
2) Fontana-Masson	30
Staining: 1) Ammoniacal silver nitrate intensification..	31
2) Fontana-Masson's stain...	32
3) Wood's stain	33
Experimental	34
Quantitative estimations	34
1. Counting the adrenomedullary cells ...	34
2. Determination of medullary volume ...	37

	Page
RESULTS	44
Stainability of Adrenomedullary cells	44
I. Ammoniacal silver nitrate intensifica- tion method	44
II. Fontana-Masson method	44
III. Wood's stain	46
Quantitative determination of the two chromaffin adrenomedullary cells	46
1. Rats aged one month	50
2. Rats aged three months	53
Comparison of the medullary volumes of rats aged three months to those aged one month	64
3. Rats aged six months	65
Comparison of the results of rats aged six months to those aged three months	75
4. Rats aged one year	78
Comparison of the results of rats aged one year to those aged three months	78
Comparison of the results of rats aged one year to those aged six months	91
5. Senile rats :(two years of age)	96
Comparison of the results of senile rats to those aged three months	106
Comparison of the results of senile rats to those aged one year	109
Rats subjected to unilateral adrenalectomy	121
Comparison of the results of the operated rats to the control ones	125
Comparison of the total number of adrenomedullary cells in the operated and control rats	134

	Page
DISCUSSION	136
Animal used	136
Techniques	136
Quantitative methods employed	140
Discussion of results	142
- Rats aged one week and one month	142
- Rats aged three months	143
- Rats aged six months	148
- Rats aged one year	151
- Senile age	155
Effect of unilateral adrenalectomy on the remaining adrenal medulla	159
SUMMARY	165
CONCLUSIONS	170
REFERENCES	172

THE EFFECT OF USING ABERCROMBIE CORRECTION FOR NUCLEAR FRAGMENTS ON THE ESTIMATION OF THE NUMBER OF ADRENALINE AND NORADRENALINE CELLS IN THE ADRENAL GLAND

INTRODUCTION	1
METHOD	2
RESULTS	3
DISCUSSION	26
SUMMARY AND CONCLUSION	28
REFERENCES	29

RADIO SUMMARY.