

TABLE OF CONTENTS

	<u>PAGE</u>
ACKNOWLEDGEMENT	i
LIST OF TABLES	ii
LIST OF FIGURES	v
LIST OF APPENDICES	vi
INTRODUCTION	1
THEORY	3
MATERIALS AND METHODS	11
RESULTS	22
DISCUSSION	51
SUMMARY	59
BIBLIOGRAPHY	60
APPENDICES	66

SUMMARY

A microdose progestogen contraceptive (d-Norgestrel) is given continuously at a dose of 30 µg/day to 123 Thai women of proven fertility, age 18-36. It is proved to be highly effective with no pregnancy. However, cycle control is still the major problem for acceptance of this steroid. Twenty-three out of this 123 women are selected for studying the effect of long-term treatment with this steroid on the fasting blood sugar, fasting insulin level, glucose tolerance and insulin levels during the oral glucose tolerance test as well as some liver functions determined by serum glutamic pyruvate transaminase, serum glutamic oxalacetate transaminase and alkaline phosphatase levels. There is no alteration of the FBS, fasting plasma insulin level or liver function after 6 and 12 months of treatment. Only the peak of blood glucose, at 60 minutes during the OGTT, found to be significantly higher in both groups when compare to the normal healthy control. But there is no further aberration on glucose levels after continuation of therapy from 6 to 12 months. Plasma insulin levels during the OGTT appear to be significantly higher from 90 to 180 minutes in both groups. This might be one important factor that counteract the diabetogenic GTT curve of glucose levels. Alteration in the rate of insulin secretion during the OGTT is discussed.