INTRODUCTION

Evaluation and understanding of the endocrine disorders have greatly been facilitated by the ever increasing knowledge of intermediary metabolism in the biosynthesis of various hormones. This is particularly so in the field of biochemistry of steroid hormones which has developed considerably during the past few years. Biosynthesis of cholesterol from 2 carbon units and its subsequent transformation into various physiologically active steroid hormones forms the basis of studies on various endocrine diseases. Several review articles and original papers have been published in recent years\(^1,2,3,4,5,6,7\) which cover the various aspects of steroidogenesis. Because of the relevance and importance of this subject to the present thesis the biochemistry underlying such pathological states as hirsutism, Cushing's syndrome, Klinefelter's syndrome and hermaphroditism, the mode of action of hormones and their abnormal production etc. have been briefly discussed in the introduction.

**Biosynthesis of Cholesterol:** Bloch and Rittenberg\(^8\) were the first to demonstrate that acetate is a major precursor of Cholesterol. This was further confirmed by showing the incorporation of acetate \(^1\text{C}^{14}\) and acetate \(^2\text{C}^{14}\) into cholesterol\(^9\). Longdon and Bloch\(^10\) isolated labelled