Preface

Infertility is one of the major public health problem faced by the people around the world with a significant social, psychological and economic impact. It is estimated that globally, greater percentage of the general population face the incidence of infertility. In countries like India, it is on an alarming rise and is estimated that 48.5 million couples worldwide in 2010 were infertile and an approximately among these couples, the male partner has been either the sole or a contributing cause of infertility. Despite proper diagnosis and knowledge of the events involved in normal conception is still limited and still we fail to determine the cause of infertility.

Since ancient times, herbal preparations/medicaments have been used as a treatment strategy in several parts of the world. Several plant products are known to inhibit the male fertility which can further be developed into male contraceptives. From the last two decades, usage of herbal products as natural cosmetics and for self-medication by the general public to the scientific investigations of plants for their biological effects in human beings has grown enormously. There is a wide tendency to utilize these herbal products to supplement the diet, mainly for improving the quality of life and preventing the diseases of elderly people. *Andrographis paniculata* is one such plant which is used from years for various medicinal activities.

This dissertation presents a humble effort by the author towards a better understanding of the impact of *Andrographis paniculata* and Andrographolide on the male reproductive system. This investigation is by no means an exhaustive one and it is very constructive to fill the gaps in the detection and treatment strategies for male fertility.