

Male Fertility Regulation: Research in Malaysia

Mahanem Mat Noor

School of Biosciences and Biotechnology, Faculty of Science and Technology

Universiti Kebangsaan Malaysia.

mahanem@ukm.my

ABSTRACT

Population explosion in some countries gave significant impacts on socio-economy and health in family and the society. Family planning has been promoted to overcome such conditions. The development of antifertility or contraceptive agents from medicinal plants which are safe and effective with minimum side effects is important but remains a big challenge in research. The importance of drugs of plant origin in the pursuit of fertility regulating agents for the male from natural products has long been recognized. Pharmacological data from previous reports showed that some compounds in plants are capable of interfering the production of androgen hormones, affected spermatogenesis process, abortifacients as well as the spermicidal activity. This review includes studies on several plants such *Centella asiatica* L., *Andrographis paniculata* and *Carica papaya* seeds as potential candidate for development of male contraceptive agent. The type of extract, doses, animal model and pharmacological activity of these materials have been reviewed to add impetus to further research and collaboration to resolve the problem of population explosion. Besides screening of potential contraceptive plants, various strategies are being employed to identify the molecules relevant to contraception. Studies to elucidate the mechanism of expression of several novel proteins having a role in sperm production, maturation and fertilization are underway.