

Abstract

POSSIBLE TERATOGENIC EFFECTS OF THE WATER EXTRACTS OF *MOMORDICA CHARANTIA*, *CATHARANTHUS ROSEUS*, AND *AZADIRACHTA INDICA* IN *SPRAGUE DAWLEY* RATS

Herbal preparations have been in use before the onset of pharmaceutical agents. The use of herbs for the management of different illnesses is appealing because it is cheap, readily available, and it reduces the stress of the hospital environment.

Herbalists have been practicing their trade for ages. This is usually done with some degree of secrecy. Furthermore, the complications that might be associated with the use of herbal preparations are not usually highlighted.

The use of herbal hypoglycemic agents for the control of diabetes has been on the increase. Some of the herbs most commonly used are corailli (*Momordica charantia*), Periwinkle (*Catharanthus roseus*), and Neem (*Azadirachta indica*). However the safety of the use of these extracts is uncertain during pregnancy. Therefore the objective of this investigation is to determine if these extracts as administered by herbalists are safe for use during pregnancy.

The water extracts of these hypoglycemic agents were administered orally to gravid *Sprague dawley* rats on days (7-14) of gestation. For each group the litter size was determined and examined for gross congenital malformations.

The extracts were found to be teratogenic. The congenital malformations affected the reproductive organs most. These extracts also produced many resorption sites.

The significance of the findings is that the extracts of corailli, periwinkle and neem as administered by herbalists is unsafe in pregnancy.

Key words: Teratogenicity, herbal hypoglycaemic agent, congenital malformation, resorption sites, *Momordica charantia*, *Catharanthus Roseus*, *Azadirachta indica*, *Sprague dawley* rat.