EFFECT OF PRENATAL DIETARY INTAKE OF *ZINGIBER OFFICINALE* OR *ASPARAGUS RACEMOSUS* ON WEIGHT GAIN OF SPRAGUE DAWLEY RATS DURING PREGNANCY

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Zingiber officinale (ginger) and *Asparagus racemosus* (hathavariya) are two common medicinal plants that have been used during pregnancy as an anti-emetic agent and as an agent to improve the well-being of both mother and foetus respectively. Several studies are available on the anti-emetic effect of ginger during pregnancy. Although there are no reported teratogenic effects of ginger, one study has revealed an increase in the early pregnancy loss and an increase in the growth rate of the remaining foetuses. There is no literature available on the effect of hathavariya on pregnancy and foetal development. Therefore, the main objective of this study was to document the effect of feeding with ginger or hathavariya on weight gain in rats during pregnancy.

Sexually mature 25 female rats were mated with healthy young male rats, of which 15 were selected by confirming the mating. The animals were divided into 3 groups of 5 each, namely ginger group (Group 1), hathavariya group (Group 2) and control group (Group 3). All animals were given a solid diet and water ad libitum. In addition, groups 1 and 2 were given crude extracts of ginger and hathavariya at a dose of 1g/Kg/day orally using a gavage needle from day 5 to day 15 of pregnancy. All rats were exposed to natural dark and light cycles. The food and water intake and the body weights of all rats were measured daily from day 0 to the end of the pregnancy.

When the daily weights are considered a similar trend in the increase in weight was observed throughout the pregnancies in all three groups except a slight reduction in the weight of group 2 during the last five days. During the pre-exposure period, there is a rapid increase in weight in all three groups (16.33 g, 18 g & 20 g in 5 days). The weight gain during the exposure period shows a reduction in average weight gain compared with that of pre- exposure period (26 g, 28.7 g & 26.8 g in 10 days). An increase in the weight gain is observed in all three groups during the post exposure period, which is more marked in the control and ginger groups (49.7 g & 51.6 g). In the case of the hathavariya fed group, the weight gain is 34.3 g. When the total average weight gain is considered hathavariya group shows the lowest value of 81.1 g ($P=0.06$) and ginger group 92 g ($P=0.79$) compared to 98.4 g of the control group.

From the present study, it is evident that feeding of pregnant rats with ginger or hathavariya has no effect on weight gain. Although a marked reduction in weight gain was observed in pregnant rats fed with hathavariya, a statistically significant result could not be obtained due to small sample size.

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