

Dietary Noodle Waste-Induced Alterations in Ovarian Biometry, Histological Integrity and Oxidative Status in Wistar Rats

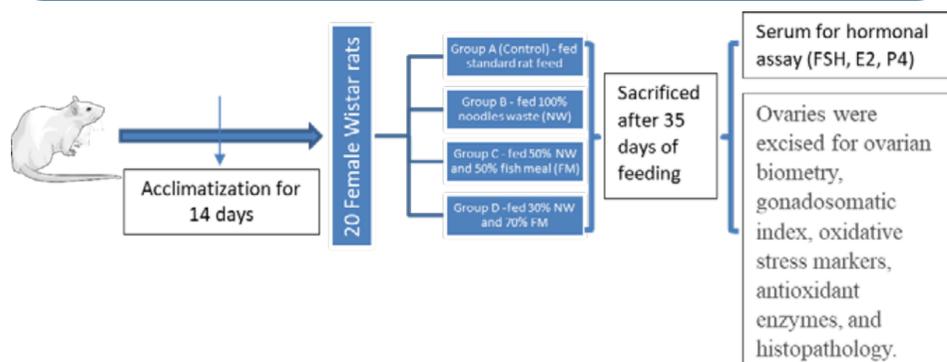
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INTRODUCTION & AIM

The current worldwide trend of advocating for waste reduction has led to an increased recycling of processed food products into animal feed (Organization, 2019). The utilization or incorporation of by-products of processed food in animal feed has emerged as a sustainable strategy for addressing feed shortages and production costs in livestock systems (Pinotti et al., 2021; Dhakal, 2024). Noodles waste, a leftover of noodles, is rich in energy but also contains crude protein, ether extract, and crude fiber, making it an excellent alternative to conventional feed ingredients for growth and productivity support for animals (Eniolorunda et al., 2008; Lala et al., 2021; Dhakal, 2024). Research on the effect of noodles waste on reproduction in female are scanty, hence this study investigated the effect of noodles waste diet on ovarian function in Wistar rats.

METHOD



RESULTS

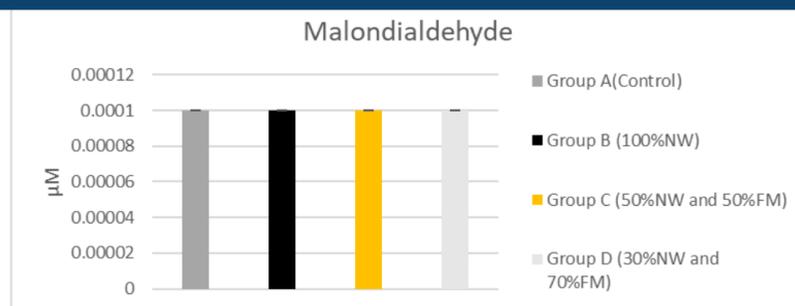


Figure 4: shows malondialdehyde across the treatment group.

RESULTS

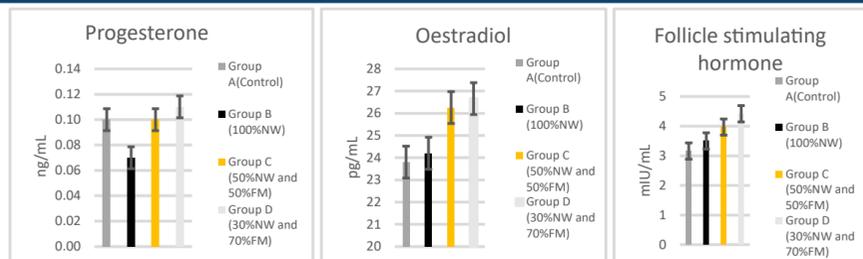


Figure 1: shows the progesterone, oestradiol and follicle stimulating hormone levels across the treatment group.

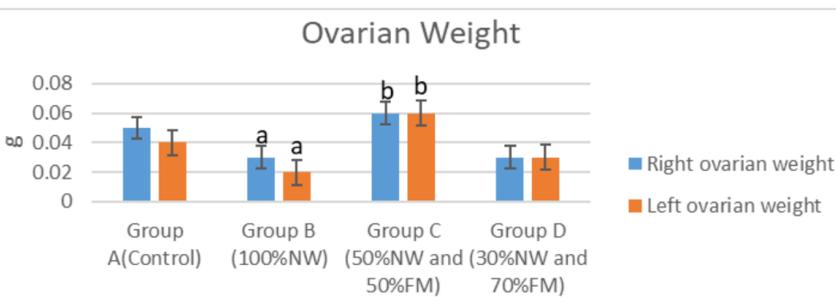


Figure 2: shows the right and left ovarian weight (g) of different treatment groups.

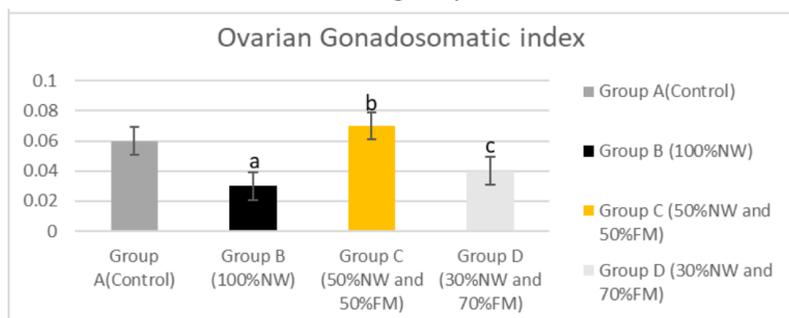


Figure 3: Shows the Gonadosomatic index of different feeding groups.

CONCLUSION

Despite no significant findings with the hormones, oxidative and antioxidant parameters investigated, exclusive consumption of noodle waste may impair ovarian function which was evident by its reduced weight, gonadosomatic index and histological changes.

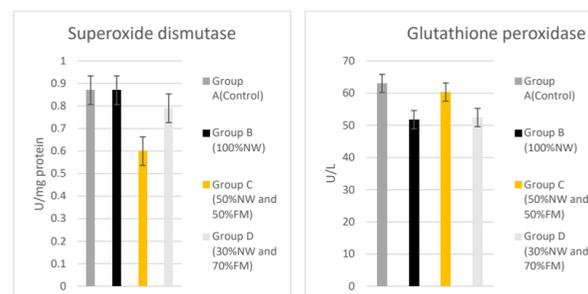


Figure 5: shows superoxide dismutase and glutathione peroxidase levels across the treatment group.

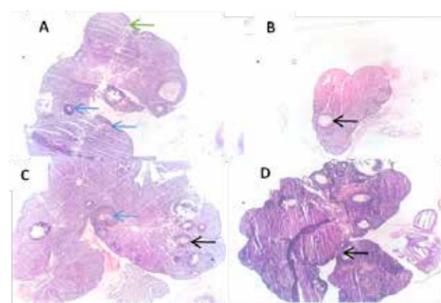


Figure 6A-D: comparing ovarian changes across the treatment groups.

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