



# SPERM MORPHOLOGY AND TESTIS HISTOLOGICAL CHANGES IN 12% HIGH CHOLESTEROL DIET ADMINISTERED RATS FOLLOWING TUALANG HONEY SUPPLEMENTATION AND DIET MODIFICATIONS



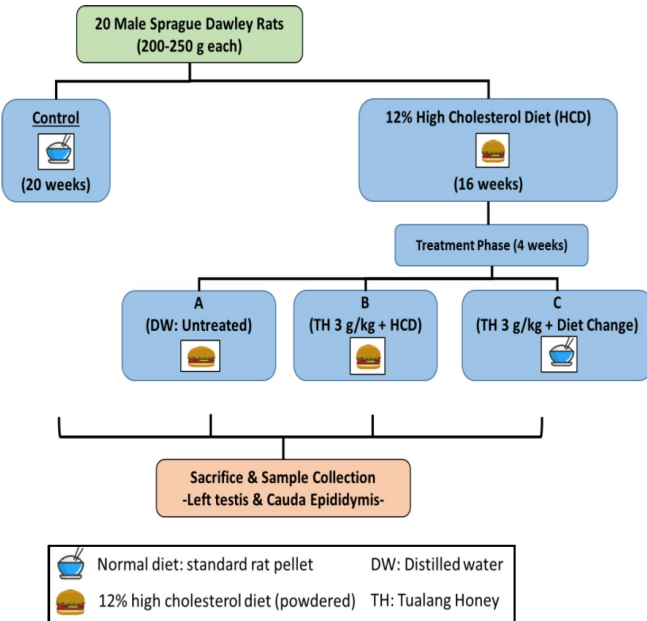
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## INTRODUCTION

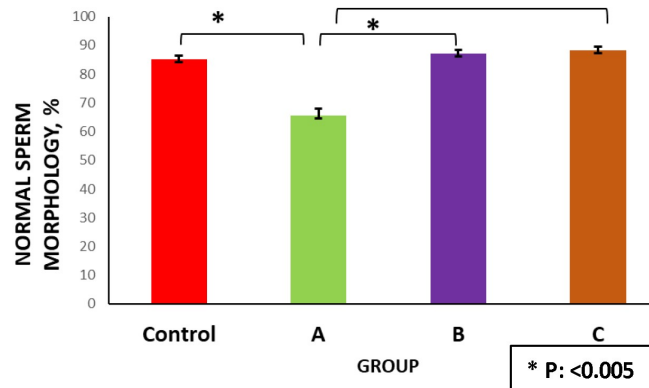
- Hypercholesterolaemia is a recognised factor associated with male infertility.
- Tualang honey (TH) is a type of Malaysian polyfloral wild honey produced by the rock bee (*Apis dorsata*)<sup>1</sup>.
- Anti-inflammatory & anti-oxidative effects that may improve male reproductive functions<sup>2</sup>.
- Aim: to determine the effects of TH coupled with diet modification on sperm morphology and testis histology of 12% high cholesterol diet (HCD) administered rats.

## METHODOLOGY



## RESULTS

Figure 1: Mean normal sperm morphology (NSM), (%)



- Compared to control, group A showed significant decrease in the NSM ( $p < 0.001$ ).
- In contrast, group B and C demonstrated significant improvement in NSM compared to group A ( $p < 0.001$ ).
- There are no significant changes in Johnsen testicular histology scoring between the groups.

## CONCLUSION

- Diet modification in addition to TH supplementation may further improve male infertility in HCD rats.
- We need to further explore the potential TH in improving male infertility associated with hypercholesterolaemia.

## REFERENCES

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