

THE HISTOLOGY OF RAT ORGANS

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ABSTRACT

THE HISTOLOGY OF RAT ORGANS

Obesity usually cause changes to the organ level. In order to view and study these changes, histological techniques can be applied. Certain juices were believed can reduce the obesity problem. Hence, during this study, organs treated with papaya and pomegranate juice were obtained and used in order to study their tissues structures. *Carica papaya* were widely used to give advantages to people such as treatment for diabetes, antiseptic, as birth control, for controlling parasites, decreased blood pressure and to reduce the cholestrol. Meanwhile, the *Punica granatum* is to make the blood became thin, added more blood flow to the heart, decrease the blood pressure, reduce plaque near the arteries and decrease the bad cholestrol for added more a good cholestrol. This study were aiming in observing differences in tissues structure between normal, obese, papaya treated and pomegranate treated rats organs. Each group of the organs such as kidney, testes, liver and lung were undergoes fixation, dehydration, embedding, sectioning and staining process. Results for kidney's glomerulus showed that papaya treated group has the highest value of $64.13 \pm 1.84 \mu\text{m}$. Meanwhile, obese group has the lowest diameter with $55.80 \pm 1.72 \mu\text{m}$. For testes, the seminiferous tubule of normal group ($113.08 \mu\text{m} \pm \text{SEM}$) was significantly higher in diameter compared to pomegranate treated group ($67.47 \mu\text{m} \pm \text{SEM}$) with ($p < 0.05$).