THE PROTECTIVE EFFECT OF ALUMINIUM SILICATE ON THE QUALITY OF SPERM, PLASMA MEMBRANE INTEGRITY AND HISTOPATOLOGY SEMINIFERUS TUBULES INDUCED BY FUSARIUM GRAMINEARUM OF MALE MICE (Mus musculus)

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ABSTRACT

Fusarium graminearum is a estrogenic fungal pathogen that produce zearalenon and deoxynivalenol mycotoxins cause of infertility in reproductive organs. This study was using 20 adult male mice were divided into 5 groups that treated for 21 days. All groups were given treatment per oral with sonde for 21 days. K- as negative control weren't treated F.graminearum and aluminium silicate, K+ as positive control were treated with F.graminearum, P1 were treated with F.graminearum 0,25ml/mice/day and aluminium silicate 0,5 mg/mice/day, P2 were treated with F.graminearum 0,25ml/mice/day and aluminium silicate 1mg/mice/day and P3 were treated with F.graminearum 0,25ml/mice/day and aluminium silicate 2mg/mice/day. The data was analyzed by ANOVA followed by Fisher's LSD and Duncan.The results showed that the K- significantly different ($p < 0.05$) with K +, P1, P2 to P3 while K- not significantly different ($p > 0.05$) on motility. At the viability of spermatozoa K- significantly different ($p < 0.05$) with K +, P1, P2 and P3, while K + significantly different ($p < 0.05$) with K, P1, P2 and treatment P1, P2 and P3 were not significantly different ($p > 0.05$). K + results were significantly different ($p < 0.05$) with K, P1, P2 and P3, while K-, P1, P2 and P3 were not significantly different ($p > 0.05$) on sperm abnormalities. Significant differences ($p < 0.05$) between the treatment groups except between K-P3 is not significantly different ($P > 0.05$) in the percentage of plasma membrane integrity. On seminiferous tubulesscoring an increase of behavioral p1, p2 and p3 is 8.1; 8.72 and 9.5. The result showed that treated with aluminium silicate 2mg/mice/day was effective to eliminate Fusarium graminearum induction.

Keywords : Fusarium graminearum, aluminium silicate, motility, viability, abnormality spermatozoa, plasma membrane integration.