145 SALIVARY IMMUNOGLOBULIN A (SIGA) RESPONSES TO BOVINE COLOSTRUM SUPPLEMENTATION DURING REGULAR TRAINING IN PHYSICALLY ACTIVE YOUNG HEALTHY ADOLESCENTS

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Immunoglobulin (Ig) is an essential soluble mediator of humoral immunity to prevent infectious agents that invades the host. Secretory IgA is the main effecter in mucosal immunity and acts as a first line of defence in the host immunity system. Exercise is known to modulate the production of specific antibody and it is anticipated that dietary intervention such as bovine colostrum may modulate the mucosal immunity. The purpose of this study was to investigate the effect of nutritional supplementation of bovine colostrum on salivary immunoglobulin A (sIgA). The subjects comprise adolescent school boys from Bukit Jalil Sports School that are actively involved on regular physical training. The subjects were randomly assigned into experimental (colostrum; n=20) or control (skimmed milk; n=20) group. The experimental and control groups were not significantly different in terms of age and body mass index. The former consumed 20 g of bovine colostrum supplement, and the latter 20 g of skimmed milk, daily for 6 weeks. sIgA measurement was conducted pre- (day 0) and post-supplementation (day 42). Bovine colostrum supplementation significantly increase saliva IgA ($p<0.001$) in the experimental group as compared to the control group. It was concluded that 6 weeks of bovine colostrum supplementation increases sIgA concentration in active young adolescents during training. Further studies are needed to investigate the mechanistic basis of sIgA and colostrum interaction.