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## Hematological and Serum Electrolyte Changes Following Elective Laparorumenotomy in West African Dwarf Goats

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Laparorumenotomy is widely used for the management of various conditions associated with the abdominal and ruminal diseases in goats. Changes in blood volume and electrolytes occur preoperatively, intraoperatively and postoperatively and this study determined some haematological and serum electrolyte changes following elective laparorumenotomy. Eight male West African Dwarf (WAD) goats aged 1-1.5 years weighing 8-10 kg with body condition score of  $3 \pm 0.5$  were acquired and acclimatized in four weeks. Following normal haemogram and physical examination, they were randomly assigned numbers 1-8. They were fasted, sedated and prepared for aseptic surgery. Laparorumenotomy was done using standard laparotomy incision on the left flank. Blood was collected presurgically (control) and immediate postsurgically (ps), 24, 48, 72, 96 and 120 hours later. The packed cell volume (PCV), haemoglobin (Hb), red blood cell (RBC), white blood cells (WBC), platelets, sodium ( $\text{Na}^+$ ), potassium ( $\text{K}^+$ ) and calcium ( $\text{Ca}^{2+}$ ) concentrations in the blood samples were obtained using cyanmethaemoglobin method and randox standard test kit. The control values were compared with the mean variables obtained after surgery using ANOVA. The PCV and Hb were significantly different ( $p < 0.05$ ) 48 hours ps compared to control. RBC was significantly different ( $p < 0.05$ ) at every ps time point while WBC were significantly different ( $p < 0.05$ ) at 96 and 120 hours ps. Platelet count was significantly different ( $p < 0.05$ ) 24, 48 and 120 hours ps. Calcium and potassium were significantly different ( $p < 0.05$ ) 120 hours ps. Platelet counts were significantly different ( $p < 0.05$ ) 96 hours ps while sodium was significantly different 48, 72, 96 and 120 hours ps. The impact of elective laparorumenotomy on haematological and serum electrolytes followed a pattern dependent on homeostasis and inflammatory response that enables healing. With disease conditions where derangements already exist, this impact may be life threatening without precautionary measures and nursing support.

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