



Therapeutic management of non-perforating abomasal ulcer in cattle

HEMALATHA P¹, SARAVANAN M^{1✉}, PREMALATHA N², JAYAKUMAR K³, KARTHIKA K¹ and VEERASELVAM M¹

Veterinary College and Research Institute (TANUVAS), Orathanadu, Thanjavur, Tamil Nadu 614 625 India

Received: 7 March 2024; Accepted: 20 September 2024

Supplementary Table 1. Haematology of non-perforating abomasal ulcer in cattle (before and after treatment)

Parameter	Unit	Group I Control (n=6)	Group II Ranitidine (n=6)		Group III Pantoprazole (n=6)		p-value
			Before (day 0)	After (day 5)	Before (day 0)	After (day 5)	
Hb	g/dL	11.17±0.37 ^b	7.62±0.75 ^a	8.55±0.69 ^a	7.08±0.41 ^a	9.42±0.64 ^{ab}	0.000**
PCV	%	32.83±0.61 ^b	23.33±1.86 ^a	27.33±1.96 ^{ab}	21.92±0.82 ^a	28.83±2.83 ^{ab}	0.002*
RBC	×10 ⁶ /μL	5.94±0.18 ^b	3.82±0.29 ^a	4.57±0.21 ^a	3.88±0.18 ^a	4.70±0.42 ^a	0.000**
MCV	fL	55.41±1.12 ^a	61.08±0.85 ^b	59.57±2.1 ^{ab}	56.61±1.03 ^{ab}	61.07±0.98 ^b	0.012*
MCH	pg	18.81±0.36	19.76±0.66	18.66±1.13	18.24±0.57	20.27±0.8	0.316 ^{ns}
MCHC	g/dL	33.97±0.53	32.33±0.84	31.23±1.3	32.22±0.8	33.26±1.48	0.425 ^{ns}
WBC	×10 ³ /μL	8.51±0.39	7.97±0.64	8.47±1.5	8.79±0.65	9.57±0.61	0.754 ^{ns}
Neutrophils	%	31.33±1.15	29.00±1.21	34.17±2.43	32.00±1.81	31.83±2.79	0.499 ^{ns}
Lymphocytes	%	60.83±0.79	65.50±1.98	59.33±1.23	61.17±1.56	60.67±1.87	0.088 ^{ns}
Basophils	%	2.17±0.31	1.83±0.65	2.67±0.99	2.17±0.91	2.17±1.05	0.970 ^{ns}
Monocytes	%	2.83±0.48	1.50±0.62	2.67±0.33	3.50±0.67	3.67±0.71	0.100 ^{ns}
Eosinophils	%	2.83±0.65	2.17±0.95	1.17±0.54	1.17±0.54	1.67±0.8	0.432 ^{ns}

Means bearing same superscript do not differ significantly otherwise significant between groups. NS, Not significant ($p \geq 0.05$); *, Significant at 5% level ($p \leq 0.05$); **, Significant at 1% level ($p \leq 0.01$); Hb, Haemoglobin; PCV, Packed cell volume; MCV, Mean corpuscular volume; MCH, Mean corpuscular hemoglobin; MCHC, Mean corpuscular haemoglobin concentration; RBC, Red blood cell; WBC, White blood cells.

Supplementary Table 2. Blood gas analysis of non-perforating abomasal ulcer in cattle (before and after treatment)

Parameter	Unit	Group I Control (n=6)	Group II Ranitidine (n=6)		Group III Pantoprazole (n=6)		p-value
			Before (day 0)	After (day 5)	Before (day 0)	After (day 5)	
pH		7.47±0.03	7.46±0.02	7.44±0.02	7.42±0.07	7.43±0.07	0.933 ^{ns}
HCO ₃	mEq/L	22.30±0.52	24.52±1.32	25.35±1.75	29.52±3.04	28.83±2.93	0.125 ^{ns}
Lac	mmol/L	1.48±0.12	3.04±0.72	3.15±0.67	3.26±0.97	2.97±0.44	0.302 ^{ns}
PO ₂	mmHg	56.12±13.3	98.00±16.17	86.67±15.36	81.57±18.76	85.17±14.56	0.444 ^{ns}
PCO ₂	mmHg	28.28±1.43	32.30±31.89	34.02±2.43	40.84±2.04	36.22±3.23	0.321 ^{ns}
SO ₂	%	86.17±4.53	93.00±5.03	92.17±4.9	90.17±4.21	92.50±3.89	0.818 ^{ns}
TCO ₂	mEq/L	22.50±0.56	25.17±1.22	25.17±1.22	31.33±2.64	30.00±2.78	0.150 ^{ns}

Means bearing same superscript do not differ significantly otherwise significant between groups. NS, Not significant ($p \geq 0.05$); *, Significant at 5% level ($p \leq 0.05$); **, Significant at 1% level ($p \leq 0.01$); HCO₃, Bicarbonate; LAC, Lactate; PO₂, Partial pressure of oxygen; PCO₂, Partial pressure of carbon dioxide; SO₂, Oxygen saturation; TCO₂, Total carbon dioxide.