

Supplementary Data: Activity of sEH and oxidant status during systemic bovine coliform mastitis. Mavangira et. el.

Table S1. Serum biochemistry and complete blood count parameters (median and range) in dairy cows with systemic mastitis and matched healthy controls ($n = 5/\text{group}$).

Parameter	*Reference Range	Coliform Mastitis Group	Healthy Controls Group	<i>p</i> -Value
Serum Biochemistry Parameters				
SUN	[7–19] mg/dL	32 (21–68)	12 (8–15)	0.008
Creatinine	[0.6–1.1] mg/dL	1.3 (0.9–2.2)	0.8 (0.8–0.8)	0.008
Sodium	[132–141] mmol/L	140 (125–142)	137 (134–138)	0.127
Potassium	[3.6–5.3] mmol/L	3.7 (3–5.4)	4.4 (4–4.7)	0.318
Chloride	[92–101] mmol/L	88 (81–99)	96 (94–98)	0.595
Bicarbonate	[23–32] mmol/L	29 (10–38)	27 (25–30)	0.579
NA/K	[26–38]	38 (23–47)	31 (29–34)	0.246
Anion Gap	[12–23] mmol/L	21 (12–36)	17 (17–19)	0.151
Osmolarity	[273–290] mmol/L	295 (263–311)	281 (276–285)	0.135
Calcium	[8.8–10.4] mg/dL	8.4 (7.4–9)	9.1 (8.5–9.4)	0.024
Phosphorus	[4.5–7.3] mg/dL	7.8 (4.6–9.1)	6.1 (5.6–6.4)	0.151
Magnesium	[1.9–2.8] mg/dL	2.3 (1.7–2.7)	2.3 (2.2–2.4)	>0.999
TP - serum	[6.4–8.1] g/dL	6.6 (5.7–6.8)	7.9 (7.1–8.2)	0.008
Albumin	[3.2–3.9] g/dL	2.9 (2.7–3.7)	3.3 (3.1–3.6)	0.191
Globulin	[2.9–4.7] g/dL	3.2 (2.8–3.7)	4.6 (3.6–4.9)	0.016
Glucose	[54–77] mg/dL	71 (62–109)	73 (64–84)	0.802
Bilirubin	[0.1–0.4] mg/dL	1.4 (0.3–5.6)	0.2 (0.2–0.3)	0.016
ALP	[26–85] U/L	66 (49–157)	38 (22–48)	0.008
GGT	[11–51] U/L	26 (23–39)	21 (18–28)	0.048
AST	[47–120] U/L	319 (170–814)	56 (47–66)	0.008
CK	[73–346] U/L	4032 (393–32278)	122 (110–185)	0.008
Cholesterol	[119–324] mg/dL	134 (85–197)	193 (154–311)	0.056
TP - plasma	[7.4–9.2] g/dL	7.5 (7.1–8.5)	8.8 (8.3–10)	0.032
Fibrinogen	[0.1–0.5] g/dL	0.9 (0.5–1.3)	0.5 (0.3–0.7)	0.040
Red and White Blood Cell Parameters				
RBC	[5.3–7.4] $\times 10^6/\mu\text{L}$	6.4 (3.2–8.7)	5.8 (5.3–7.6)	0.968
Hemoglobin	[9.5–12.2] g/dL	11.4 (5.3–14.5)	10.1 (9.5–11.9)	0.841
Hematocrit	[26–34] %	30 (15–37)	27 (24–32)	0.889
MCV	[41–53] fL	46 (37–53)	46 (42–50)	>0.999
MCH	[15–20] pg	18 (17–18)	17 (16–19)	0.008
MCHC	[35–38] g/dL	38 (34–39)	38 (37–39)	0.651
CHCM	[34–38] g/dL	37 (33–38)	37 (35–38)	0.738
RDW	[16–20] %	17 (17–25)	19 (18–20)	0.548
Platelet	[217–444] $\times 10^3/\mu\text{L}$	241 (127–552)	366 (80–458)	0.841
MPV	fL	7.9 (6.4–8.6)	6.5 (2.2–6.5)	0.056
WBC	[5.2–11.8] $\times 10^3/\mu\text{L}$	4.9 (1.1–10.4)	6.8 (4.4–21.6)	0.310
Seg Neut	[1.9–6.1] $\times 10^3/\mu\text{L}$	0.2 (0.1–2.8)	3.2 (2.2–6.5)	0.032
Band Neut	[0.0–0.0] $\times 10^3/\mu\text{L}$	0.5 (0.1–5.2)	0 (0–0)	0.008
Lymphocyte	[1.6–8.3] $\times 10^3/\mu\text{L}$	2.2 (0.8–3.9)	2.2 (1.6–13.8)	0.421
Monocyte	[0.0–1.0] $\times 10^3/\mu\text{L}$	0 (0–0.1)	0.2 (0.2–0.9)	0.008

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Eosinophils	[0.0–0.9] x10 ³ /μL	0 (0–0.2)	0.2 (0–0.4)	0.206
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*Michigan State University Veterinary Diagnostic Laboratory reference ranges; SUN, serum urea nitrogen; NA/K, sodium/potassium ratio; TP, total protein; ALP, alkaline phosphatase; GGT, gamma-glutamyl transferase; AST, Aspartate aminotransferase; CK, creatine kinase; RBC, red blood cell count, MCV, mean corpuscular volume; MCH, mean corpuscular hemoglobin; MCHC, mean corpuscular hemoglobin concentration; CHCM, cellular hemoglobin concentration mean; RDW, red blood cell distribution width; MPV, mean platelet volume; WBC, white blood cell count; Seg Neut, segmental neutrophils; Band Neut, band (immature) neutrophils. Data were analyzed with Wilcoxon rank-sum tests ($\alpha = 0.05$).