Supplemental Materials for "Pulmonary Exposure to Peat Smoke Extracts in Rats Decreases Expiratory Time and Increases Left Heart End Systolic Volume"

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SUPPLEMENTAL METHODS

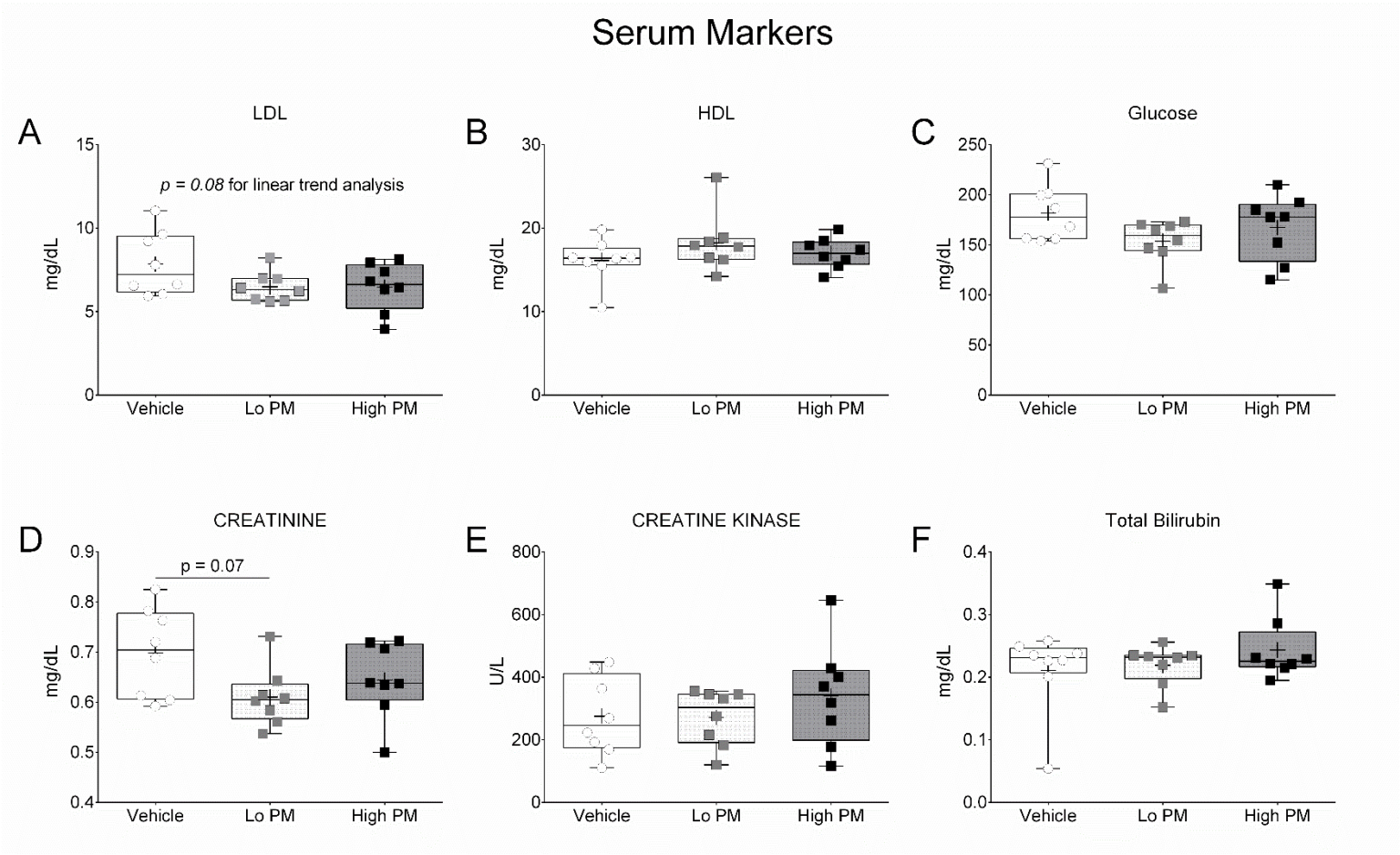
Biomarker Analyses: Serum and bronchoalveolar lavage fluid (BALF) were assayed for various biomarkers. BALF was tested for catalase using a procedure described elsewhere (Wheeler et al. 1990). Serum glutathione peroxidase (GPX) was quantified as previously described (Jaskot et al. 1983). Assays from Randox Laboratories-US, Ltd., Kearneysville, WV, USA were total superoxide dismutase (SOD, #SD125). Assays from Thermo Fisher Diagnostics, Middletown, VA, USA were total protein (#1856209) and γ-glutamyl transferase (GGT, # TR19320). The albumin assay (#86098) was from DiaSorin, Inc., Stillwater, MN, USA. Assays from Thermo Fisher Scientific, Middletown, VA, USA were aspartate aminotransferase (AST, #TR-70121) and alanine aminotransferase (ALT, #TR71021). Assay from Kamiya Biomedical, Tukwila, WA, USA were C-reactive protein (CRP, #KAI-160) and complements C3 (#KAI-009) and C4 (#KAI-010). Assays from Sekisui Diagnostics, Exton, PA, USA were angiotensin converting enzyme (ACE, #TR-85056), total bilirubin (#285-10), creatinine (CREA, #221-30), high density lipoprotein (HDL, #6121), and low density lipoprotein (LDL, #7120x). Assays from TECO Diagnostics, Anaheim, CA, USA were alkaline phosphatase (ALP, #A505-240), creatine kinase (CK, #C512-60), blood urea nitrogen (BUN, #B550-240), cholesterol (#C509-150), triglycerides (#T531-150), and glucose (#C518-150). Please note that use of these products does not imply endorsement by the U.S. Environmental Protection Agency.

SUPPLEMENTAL RESULTS

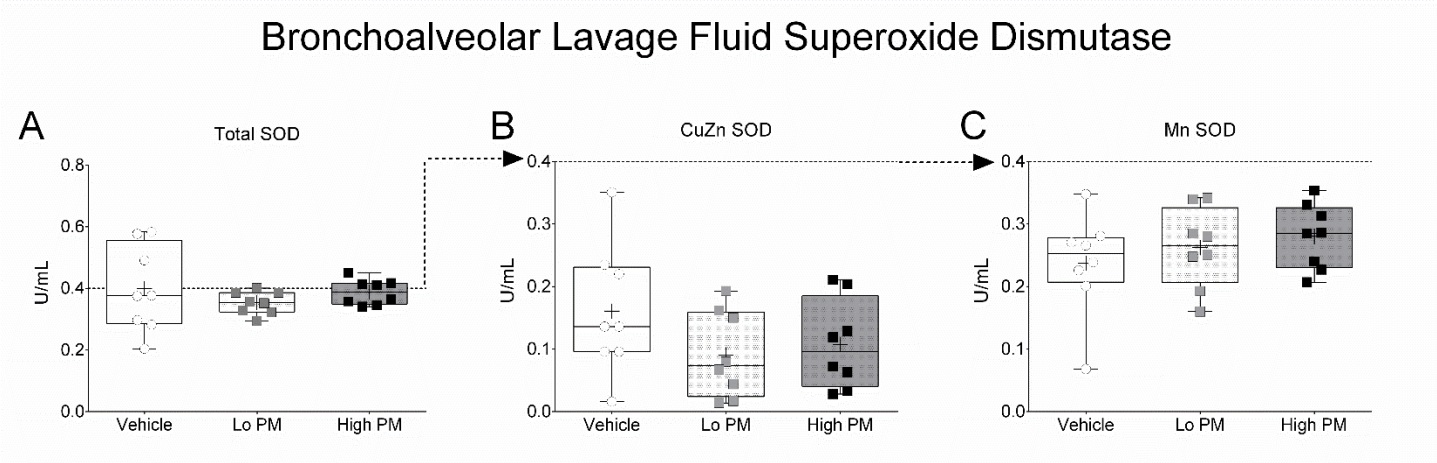
Biomarker Analyses: Serum was analyzed for various biomarkers of metabolic dysfunction and tissue injury. Selected results are presented in Supplemental Figure S1. We also analyzed BAL fluid for various biomarkers of oxidative stress. We report data for super oxide dismutase in Supplemental Figure S2. No factors were statistically different but the presented factors showed interesting trends, collectively. The *p*-values nearing significance are provided for clarity.

SUPPLEMENTAL DATA

Supplemental Figure S1. Biomarkers from serum collected one day after exposure to peat smoke condensate extracts.



Supplemental Figure S2. Superoxide dismutase measure in bronchoalveolar lavage fluid collected one day after exposure to peat smoke condensate extracts.



REFERENCES

Jaskot RH, Charlet EG, Grose EC, Grady MA, Roycroft JH. 1983. An automated analysis of glutathione peroxidase, S-transferase, and reductase activity in animal tissue. *J Anal Toxicol*. 7(2):86-88.

Wheeler CR, Salzman JA, Elsayed NM, Omaye ST, Korte DW, Jr. 1990. Automated assays for superoxide dismutase, catalase, glutathione peroxidase, and glutathione reductase activity. *Anal Biochem*. 184(2):193-199.