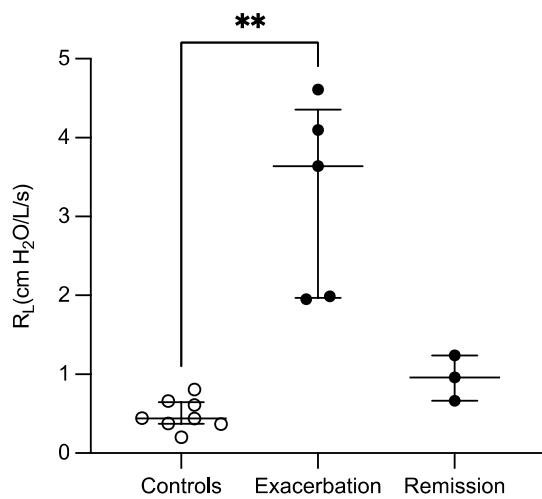


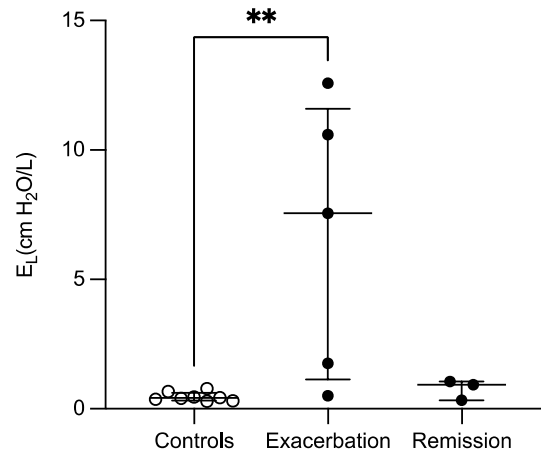
## Supplemental Material

**Fig S1. Lung function.** A) Pulmonary resistance ( $R_L$ ) and B) pulmonary elastance ( $E_L$ ) in horses with asthma (black dots) in exacerbation ( $n = 5$ ), in remission ( $n = 3$ ), and controls (white dots,  $n = 8$ ) before euthanasia. Horizontal lines represent the median, and the error bars represent the interquartile range. Horses in remission were excluded from the statistical analysis.

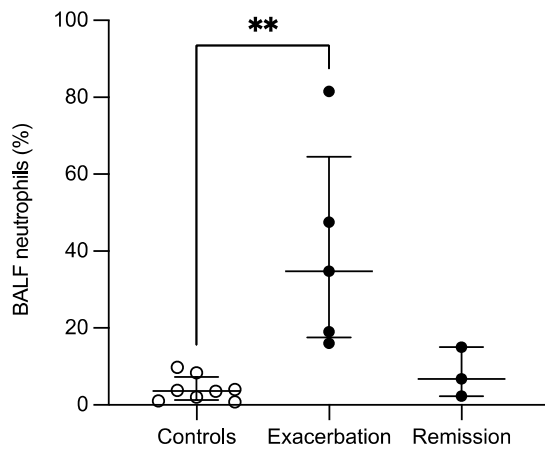
**A**



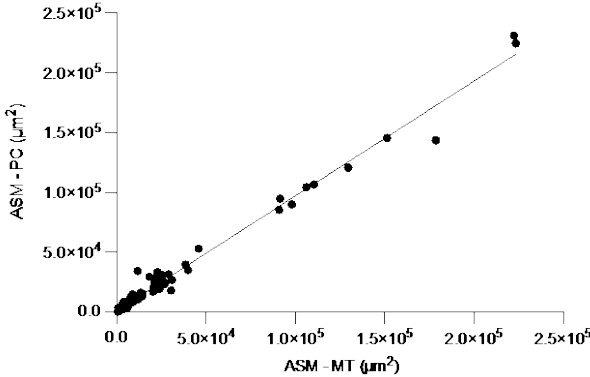
**B**



**Fig S2. Bronchoalveolar lavage fluid (BALF).** Neutrophil percentages in horses with asthma (black dots) in exacerbation (n = 5), in remission (n = 3), and controls (white dots, n = 8) before euthanasia. Horizontal lines represent the median, and the error bars represent the interquartile range. Horses in remission were excluded from BALF analysis.



**Fig S3. Correlation between histomorphometric measurements.** Correlation of smooth muscle area measured by morphometric tracing (ASM-MT) with smooth muscle area measured by point counting analysis (ASM-PC).



**Fig S4. Arterial innervation and arterial smooth muscle area.** A) Number of vascular (arterial) nerves (NVN) corrected for internal perimeter squared ( $\mu\text{m}^2$ ) in horses with asthma (n = 8) and controls (n = 8). Vascular smooth muscle area (VSM) corrected for internal perimeter squared ( $\mu\text{m}^2$ ) in horses with asthma (n = 8) and controls (n = 8). Horizontal lines represent the median, and the error bars represent the interquartile range.

