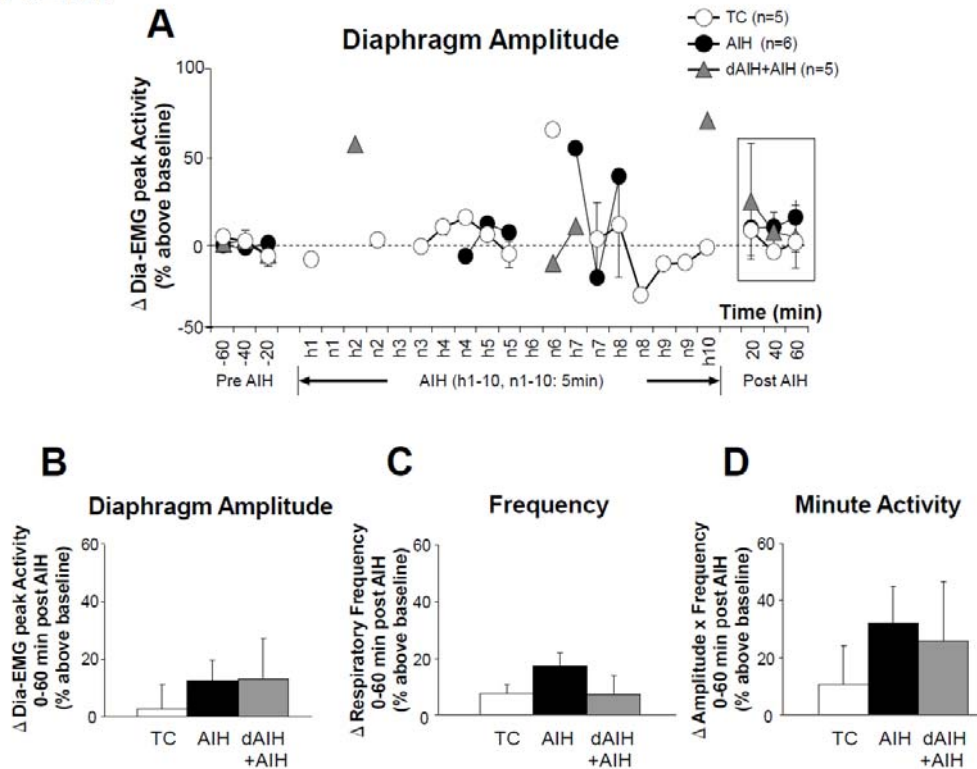


<REM>



1

2

3 **Online supplement 2.**

4 (A) Changes in diaphragm amplitude expressed as percent change from baseline during  
 5 REM sleep before, during and after treatment (TC, AIH, and dAIH + AIH) in  
 6 unanesthetized rats. The trends of increase above baseline (relative to TC) were  
 7 observed in diaphragm amplitude (B), frequency (C), and calculated values of minute  
 8 diaphragm activity (amplitude x frequency) (D) during REM sleep 0-60 min  
 9 post-treatment in AIH and dAIH + AIH treated rats, but were insignificant. Note: (1) all  
 10 parameters were analyzed in only about two-third of rats (TC, 5 of 8 rats, AIH, 6 of 9  
 11 rats, dAIH + AIH, 5 of 7 rats), since the remaining rats did not show REM sleep periods  
 12 pre or post treatment; (2) all values during REM sleep is more variable than values  
 13 during NREM sleep and QW (see Fig. 6 and 7). All variables in the dAIH + AIH group  
 14 were obtained on the last day of the AIH exposure (day 8). Values are means  $\pm$  1 SEM.