

Fig. 4. The expression of ACTH-mRNA in the pituitary gland of NAG (OVA⁻) and AG (OVA⁺) mice using RT-PCR (A) and their intensity relative to those of β -actin mRNA (B). The size of amplification bands of ACTH was 117 bp. M, 100-bp ladder.

Table 2. Body weight, absolute and relative weight (adrenal weight/body weight) of the adrenal gland, and volume of the pituitary gland of mice exposed to toluene prior to inhalation of formaldehyde over 3 months.

subgroup	BW (g)	AW (mg)	AW/BW ($\times 10^{-4}$)	VPG ($\times 10^7 \mu\text{m}^3$)
0	27.8 \pm 0.6	6.5 \pm 0.2	2.4 \pm 0.1	92.8 \pm 8.3
80	28.4 \pm 0.5	5.5 \pm 0.2*	1.9 \pm 0.1*	79.2 \pm 5.8
400	27.7 \pm 0.3	6.3 \pm 0.3	2.3 \pm 0.1	90.4 \pm 2.5
2000	27.1 \pm 0.5 [#]	5.7 \pm 0.2*	2.1 \pm 0.1	78.8 \pm 3.7

The values are expressed as mean \pm SEM,

*p<0.05 vs. control (0 group),

[#]p<0.05 vs. 80 group,

BW: body weight,

AW: adrenal weight,

VPG: volume of anterior pituitary gland,

The number of mice in each group is 10 except for VPG (n=5).

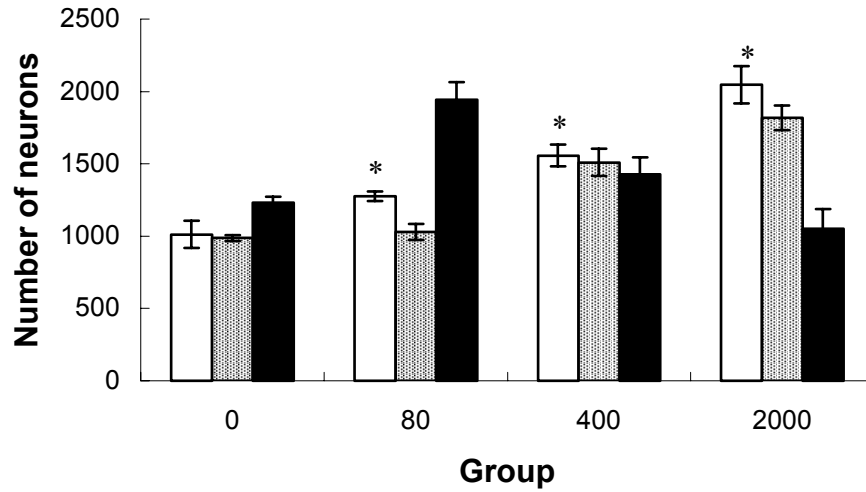


Fig. 5. Number of CRH-ir neurons in the PVN of mice exposed to toluene prior to inhalation of formaldehyde (empty bar), NAG (OVA⁻) mice (gray bar) and AG (OVA⁺) mice (filled bar) (data of non allergy and allergy mice were quoted from Ref. [16]). Mice in C group are designed as 0 (control), 80, 400 and 2000 group mice since they were exposed to formaldehyde at concentration of 0 (air), 80, 400 and 2000 ppb over 3 months. Moreover, allergy mice injected intraperitoneally with 10 μ g ovalbumin (OVA) plus 2 mg alum before formaldehyde inhalation. Values are mean \pm SE (n=5). *p<0.05 vs. the 0 group (control).

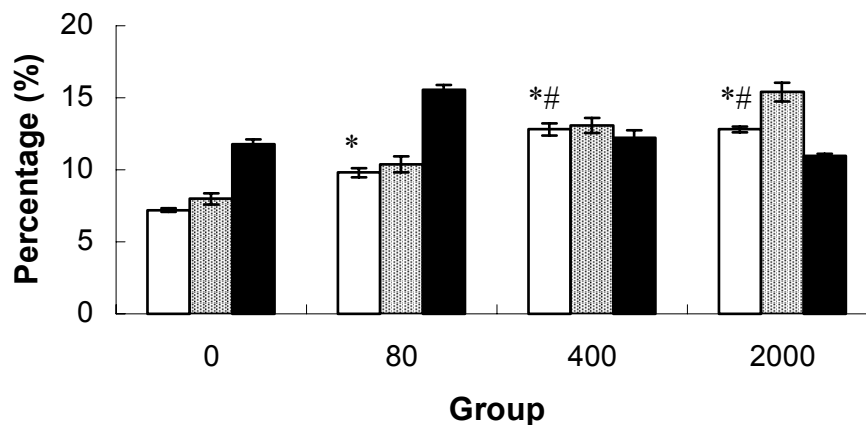


Fig. 6. Percentage of ACTH-ir cells in the anterior pituitary gland of mice exposed to toluene prior to inhalation of formaldehyde over 3 months (empty bar), NAG (OVA⁻) mice (gray bar) and AG (OVA⁺) mice (filled bar) (data of non allergy and allergy mice were quoted from Ref. [16]). Values are mean \pm SE (n=5). *p<0.05 vs. the 0 group (control) and #p<0.05 vs. the 80 group.

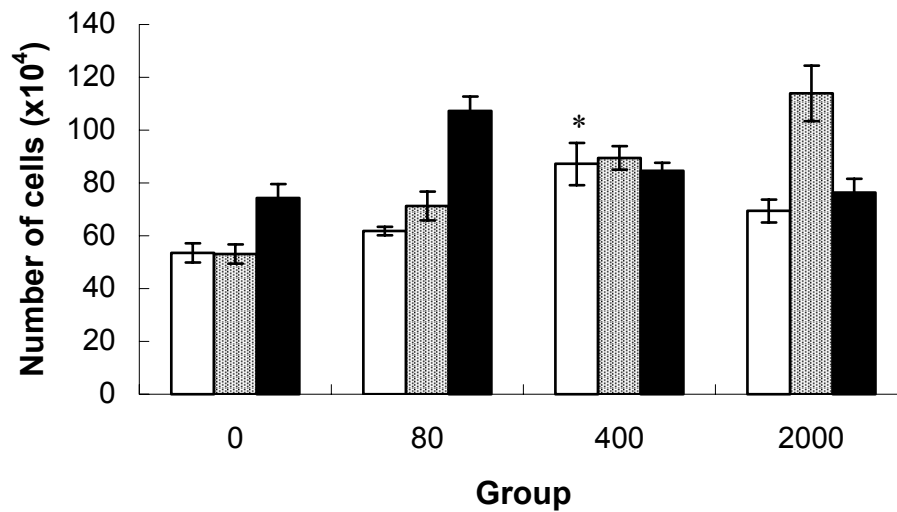


Fig. 7. Number of ACTH-ir cells in the anterior pituitary gland of mice exposed to toluene prior to inhalation of formaldehyde over 3 months (empty bar), NAG (OVA-) mice (gray bar) and AG (OVA+) mice (filled bar) (data of non allergy and allergy mice were quoted from Ref. [16]). Values are mean \pm SE (n=5). *p<0.05 vs. the 0 group (control).

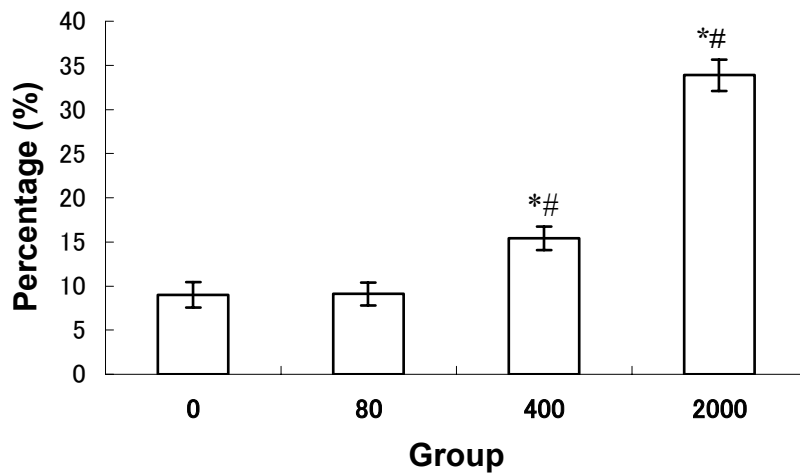


Fig. 8. Percentage of sinusoid area in the anterior pituitary gland of mice exposed to toluene prior to inhalation of formaldehyde over 3 months. The percentage is higher in the 400 and 2000 groups than in the control group. Values are mean \pm SE (n=5). *p<0.05 vs. the 0 group (control) and #p<0.05 vs. the 80 group.