

Partie 2 : Inhibiteurs des Acétylcholinestérases : traiter un inhibiteur toxique par un inhibiteur réversible

Question 1

Des expériences d'exposition au Paraoxon (un composé organophosphoré - pesticide) chez des populations de rats ont été réalisées en réalisant ou non des traitements par des inhibiteurs réversibles de l'acétylcholinestérase identifiés dans les traitements contre les maladies neurodégénératives (Pyridostigmine, physostigmine, Ranitine, Tacrine, K-27).

Traitez et analysez ces résultats en terme de toxicité du Paraoxon mais aussi d'effets protecteurs et/ou soignant des inhibiteurs réversibles.

Groups (G)	30 min	1 h	2 h	3 h	4 h	24 h	48 h
Paraoxon only (pretreatment group)	63/88/96	63/88/96	63/88/96	67/88/96	67/88/96	67/88/96	67/88/96
Paraoxon only (pre- and posttreatment group)	75/88/92	79/88/92	79/88/92	79/92/92	83/92/92	83/92/96	83/92/96
Pyridostigmine pretreatment	13/88/83	21/88/83	25/88/88	25/88/88	25/88/88	29/88/88	29/88/88
Pyridostigmine pretreatment + K-27 posttreatment	13/100/96	13/100/100	13/100/100	21/100/100	21/100/100	29/100/100	29/100/100
Physostigmine pretreatment	4/29/46	4/29/46	13/33/46	13/33/46	13/33/46	13/33/46	13/33/50
Physostigmine pretreatment + K-27 posttreatment	8/42/54	8/42/54	8/42/54	8/42/54	8/42/54	8/42/54	8/42/54
Ranitidine pretreatment	0/79/92	0/83/92	4/92/92	4/92/92	8/92/92	13/92/92	13/92/92

Table 1. Cont.

Groups (G)	30 min	1 h	2 h	3 h	4 h	24 h	48 h
Ranitidine pretreatment + K-27 posttreatment	25/58/83	29/67/83	33/67/83	38/75/83	42/83/83	46/83/83	46/96/83
Tacrine pretreatment	0/54/92	0/58/92	13/71/92	13/79/92	13/79/92	13/79/92	13/79/92
Tacrine pretreatment + K-27 posttreatment	0/63/83	0/63/83	0/67/83	0/71/88	0/71/92	0/75/92	0/79/92
K-27 pretreatment	13/8/13	25/17/21	25/21/25	25/21/29	33/29/33	46/42/38	46/42/42
K-27 pretreatment + K-27 posttreatment	0/25/33	17/25/46	21/25/46	21/29/46	21/42/46	25/54/50	25/58/50

FIGURE 1.4 – Effets prophylactique et traitement des inhibiteurs réversible sur la mortalité due au paraoxon. Mortality of rats given paraoxon intraperitoneally (i.p.) in a dosage of 1 (first value), 2 (second value), or 3 $\mu\text{mol}/\text{animal}$ (third value). Listed is the proportion of dead animals in percent (derived from 24 rats) at each time point (30 min, 1 h, 2 h, 3 h, 4 h, 24 h, and 48 h after paraoxon injection) for rats given no pretreatment (rows 1 and 2 : paraoxon only) and for animals given i.p. injections of the AChE inhibitors pyridostigmine, physostigmine, ranitidine, tacrine, or K-27 30 min before paraoxon exposure (pretreatment), either alone or followed by K-27 immediately after paraoxon exposure (K-27 posttreatment). The dose injected for pretreatment and for K-27 posttreatment was approximately one-fourth of the LD01 . The lines are arranged to compare pretreatment alone (white row) are listed above the same treatment combined with K-27 posttreatment (grey row, underneath).[3]

Temporary page!

$\LaTeX$ was unable to guess the total number of pages correctly. As there was some unprocessed data that should have been added to the final page this extra page has been added to receive it.

If you rerun the document (without altering it) this surplus page will go away, because $\LaTeX$ now knows how many pages to expect for this document.