

## PRELIMINARY COMMUNICATION

### LACK OF A MODULATORY EFFECT OF IMIPRAMINE ON GLUCOCORTICOID-INDUCED SUPPRESSION OF INTERFERON- AND INTERLEUKIN-10 PRODUCTION *IN VITRO*

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Antidepressant drugs have been shown to reverse some changes evoked by glucocorticoids or stress. In the present study we attempted to find out whether imipramine, one of the most frequently used antidepressant drugs, interfered with glucocorticoids, modulating the production of IFN- and IL-10, pro-inflammatory and anti-inflammatory cytokines, respectively. We observed a significant inhibitory effect of hydrocortisone, dexamethasone and the glucocorticoid receptor agonist RU 28362, used at doses of  $10^{-6}$  and  $10^{-5}$  M, on the production of IFN- and IL-10 by whole blood cells stimulated by mitogens. Imipramine at doses of  $10^{-6}$  and  $10^{-5}$  M did not modulate IFN- or IL-10 production, whereas at a dose of  $10^{-5}$  M it increased the production of IL-10 and decreased that of IFN- , those results being statistically insignificant, though. A combination of imipramine and dexamethasone or hydrocortisone at doses of  $10^{-6}$  or  $10^{-5}$  M significantly suppressed the production of IFN- and IL-10, the level of inhibition being similar to that observed for glucocorticoids alone. The classic antidepressant imipramine was not able to modulate the suppressive effect of “stress” doses of hydrocortisone on the production of cytokines.

**Key words:** *imipramine, glucocorticoids, interferon- , interleukin-10*