**Supplemental Figure S1**



The effects of intra-IL injections of eticlopride (Eti) with systemic milnacipran (Mil) on behavioral parameters of the 3-CSRTT. Rats received systemic milnacipran (0 or 10 mg/kg) and intra-IL eticlopride (0 or 3 g/side; n = 12).

Each measure was analyzed separately using two-factor repeated measures ANOVA. One factor is vehicle or milnacipran and another factor is vehicle or eticlopride.

2×2 repeated measures ANOVA revealed significant effects of milnacipran (*F*1, 11 =30.45, *P* < 0.05) and eticlopride (*F*1, 11 =30.45, *P* < 0.05) but not milnacipran × eticlopride interaction (*F*1, 11 = 2.40, *NS*) on premature responses, suggesting that there were significant independent effects of milnacipran and eticlopride on premature responses but no synergistic effects between milnacipran and eticlopride. There were significant main effects of eticlopride but not milnacipran on omissions (*F*1, 11 = 55.33, *P* < 0.05), correct response latency (*F*1, 11 =21.64, *P* < 0.05), and reward latency (*F*1, 11 = 44.25, *P* < 0.05). However, there was a milnacipran × eticlopride interaction merely on correct response latency (*F*1, 11 = 5.88, *P* < 0.05), implying that although eticlopride alone prolonged correct response latency, there was also a synergistic effect of milnacipran and eticlopride on correct response latency. Neither milnacipran × eticlopride interaction, main effects of milnacipran, nor eticlopride were significant in accuracy or perseverative responses.

High dose of eticlopride alone reduced the number of premature response and increased the number of omission and prolonged latency to correct response and collection of reward. Blockade of dopamine D2 receptors in the rat mPFC was reported to induce inhibition of locomotor activity in a dose-dependent manner (Radcliffe and Erwin 1996), suggesting that high dose of intra-IL injection of eticlopride impaired motor activity in our study.

Thus, these results indicate that it is hard to determine whether D2-like receptors expressing in the IL contributed to the effects of milnacipran on premature response using 3 g of eticlopride. The bars represent the mean, and the lines represent the SEM. \**P* < 0.05 (with Holm method).

**Supplemental references**

Radcliffe RA, Erwin VG (1996) Alterations in locomotor activity after microinjections of GBR-12909, selective dopamine antagonists or neurotensin into the medial prefrontal cortex. J Pharmacol Exp Ther. 277(3):1467-76.