

**Introduction.** Anticipatory Nausea (AN) is a form of classical conditioning in which the effects of a nausea-inducing substance, such as lithium chloride (LiCl), become associated with a social or environmental context. In rats, AN can be measured by the frequency of conditioned gaping behaviour, displayed when rats are re-exposed to a context previously associated with LiCl. Oxytocin (OT) may be involved in the mediation of socially conditioned disgust, though its role in mediating non-social environmentally conditioned disgust is unclear. The purpose of the present study was to investigate the role of OT in mediating environmentally conditioned disgust. It was hypothesized that for rats conditioned with LiCl in a novel context, administration of L-368 899 (OTX), an OT antagonist, prior to LiCl-free conditioning context re-exposure would significantly reduce the frequency of conditioned gaping behaviour compared to controls.

**Methods.** 32 adult male Long-Evans rats were divided into 4 groups (NaCl-NaCl, NaCl-OTX, LiCl-NaCl, LiCl-OTX). LiCl (128mg/kg) or vehicle control (NaCl) was given during the four conditioning days. OTX (5mg/kg) or NaCl was given on the first extinction day while only NaCl (10ml/kg) was given on the second and third extinction days.

**Results.** Contrary to the hypothesis, OTX did not significantly reduce the frequency of conditioned gaping behaviour compared to NaCl in LiCl-conditioned rats upon LiCl-free conditioning context re-exposure.

**Discussion.** The results suggest that OT is not involved in the mediation of non-social environmentally conditioned disgust. This supports the contention that OT has little involvement in mediating responses to non-social environmental factors.

**Words: 248**

**Limit: 250**