The Palatability FDTs Containing LPV/r and Their Ability to be Masked by Sucrose

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Abstract

The purpose of this study was to determine if the bitterness of freeze dried tablets (FDT) containing lopinavir and ritonavir (LPV/r) could be masked by sucrose in order to be less aversive. We matched the bitterness of the four concentrations of FDT containing LPV/r to three concentrations of quinine hydrochloride (Q-HCl) and then combined these chemical stimuli with two concentrations of sucrose in order to examine if the bitterness of FDT could be masked. Rats were exposed to behavioral testing in order to measure if the bitterness of the solution had an effect on licking patterns. As hypothesized, results showed that sucrose at 750 mM effectively masked the bitterness of the Q-HCl stimulus for all solutions. However, the addition of sucrose to FDT containing LPV/r showed no effect on oromotor responses. There were no significant effects of any stimulus on the latency to approach and lick the spout. Matching aversive concentrations of FDT and Q-HCl differed significantly on their ability to be masked by sucrose, therefore we conclude that there is an additional negative hedonic stimulus associated with FDT containing LPV/r beyond its aversive bitter taste that sucrose could not mask.