

## **P6.01.**

### **Effect of chlordiazepoxide on the open field behavior of young domestic chicks during social isolation and in the presence of predator**

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Standard laboratory tests measure the degree of anxiety using the rats' aversion to open spaces, an adaptive behaviour to avoid predators. In a similar situation, young domestic chicks actively search for the proximity of conspecifics and frequently emit distress calls (DC). In the presence of a predator the adaptive behavior involves reduction of vocalisation and motor activity. We examined the anxiolytic effect of chlordiazepoxide (CDP), on the open field (OF) behaviour of newly hatched domestic chicks during social isolation and in the presence of predator. In the experiment frequencies and latencies of DCs and escape reactions, and motor activity were measured before and after presenting stimuli of an aerial predator. Plasma corticosterone level was also measured immediately after the test. CDP reduced the number of DCs and escape behaviors in all doses, and dose-dependently affected their latencies. The number of DCs and escapes decreased in all groups after the predator. Plasma corticosterone level negatively correlated with predator-induced decrease of DCs and motor activity, but positively with the baseline DC frequency. The behavior of chicks is mainly influenced by social isolation in OF test. The predator has a long term effect on the behavior only if there is a lower level of stress hormone. Since corticosterone levels are not correlated with the intensity of reaction for predator, neuroendocrine regulation of the different types of stress may be separate.

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