

Influence of diclofenac sodium on the development of the necrophagous fly *Chrysomya megacephala* (Fabricius, 1794) (Diptera: Calliphoridae): application in forensic entomology

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Insects may be of great utility in crimes briefing, since its development analysis brings information for the calculation of the post-mortem interval. Entomotoxicology studies the influence of substances into the development of these insects to analyze any alterations. This study aimed to identify the effects of the sodium diclofenac in the post-embryonic development of *Chrysomya megacephala* (Fabricius), a highly present species in the process of decomposition of animal organic matter. First instar larvae of the 3<sup>rd</sup> generation of a colony that was established in the laboratory were reared with 60g of chicken gizzard homogenate in 65% agar, consisting in three groups. Two different concentrations of sodium diclofenac were added to the diet, consisting in two treatments: one following (T1) the dose indicated from the fabricants for the patients (1µg/100mL of water) and another (T2) with a four times higher concentration (4µg/100mL of water). control group received distillate water instead of the drug. Four repetitions were made per treatment (40 larvae each), being monitored daily. After the conclusion of the experiment, the results were analyzed with the programs microsoft excel and r, using anova test for the variations in the larval weight, the duration of the larval, pupal and total stages and in the viability. There was no significant difference among the three treatments. Due to that, it seems that the sodium diclofenac does not affect the post-embryonic development of *Chrysomya megacephala*.