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Histological study of the venom gland in the wasp Apoica thoracica, Acre, Brazil.

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The wasps belong the order Hymenoptera, group Aculeata, have functional sting. The wasps sting is used primarily as defense, there is a strong dependence of the animal on this structure. The objective of this study was to analyze the histology of the venom gland *Apoica thoracica* wasp, as well as to observe the formation of the poison. The specimens were dissected to remove the venom gland, after fixed in Carnoy, dehydrated and embedded in Leica resin and sectioned with microtome to application histological techniques with hematoxylin and eosin (HE). The venom gland is formed by two secretory filaments, an convoluted gland and an reservoir, connected with sting. Histologically, the epithelium of the venom gland filaments consists of cylindrical cells, with spherical and large nuclei, containing evident nucleoli; the reservoir epithelium is formed by cubic cells with spherical nuclei and small nucleoli. The convoluted gland cells showed spherical, enormous, central nuclei, containing nucleoli. In general, nuclei and nucleoli were strongly stained with hematoxylin, reflecting intense activity of RNA synthesis, more pronounced in cells of convoluted gland. The cytoplasm of secretory filaments cells, convoluted gland as well as in the lumen of the secretory filaments and of the reservoir has basic pH secretion, reflecting protein nature. The secretion present in reservoir was observed homogeneous and granulated. The results show the filaments epithelium, reservoir and convoluted gland are secretory. The secretion is basic when present in the cytoplasm of secretory filaments cells, reservoir and convoluted gland, as well as in the lumen of the secretory filament and reservoir.