3-1-6. The Fine Structural Characteristics of the Venom Gland in the Funnel Web Spider, Agelena limbata

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The fine structure of the venom producing organs in the funnel web spider, Agelena limbata were studied using electron microscopes. The Agelena limbata has a pair of poison glands in the prosoma portion. Each poison gland consists of a long cylindrical part and an adjoining duct, which terminates at the tip of the cheliceral fang. The chelicera consists of two parts, a stout basal part and a movable fang and both sides of the cheliceral groove are armed with marginal teeth. The outer surface of the venom gland is surrounded with muscle layer that spirals around the body of the gland and fused in the terminal portion. The venom secreting epithelium composed of long interdigitating epithelial cells running perpendicular to the muscular sheath and extending into the central lumen of the gland. Each secretory cell has well developed rough endoplasmic reticulum and secretory granules. The secretory venom granules that have various electron density and size were scattered in the cytoplasm of the venom secreting epithelial cells. The produced venom granules are moved to the central lumen surround by cytoplasmic process and secreted into the glandular lumen.