

C105 **Fine Structural Analysis of the Silk Producing Organs in the Spider, *Araneus venticosus***

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The silk producing apparatus of the araneid spiders are the most complicated and differentiated thread producing organs in animals. Each kind of the silk glands secretes different types of threads and they are used to different purposes. The silk glands of this spider were composed of 5 kinds of large silk glands (major ampullate glands, minor ampullate glands, tubuliform glands, aggregate glands, flagelliform glands) and 2 kinds of small silk glands (pyriform glands and aciniform glands). By light and electron microscopical observation, distribution of the spinning apparatus and its fine structure were revealed. The major ampullate glands were connected with the spigots (large spinning tubes) of the anterior spinnerets, however minor ampullate glands were connected with the middle spinnerets. Among 3 pairs of the tubuliform glands, one pair connected with the spigots on the middle spinnerets and two pairs with the posterior spinnerets. Moreover, sticky capture threads were originated from a characteristic "triad" structure, the arrangement of three spigots made by one flagelliform and two aggregate glands.

C106 **The Alleviating Effects of Green Tea on Paraquat Toxicity to Glycoconjugates in the Intestine of the Rat**

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Paraquat toxicity and the alleviating effects of green tea on this toxicity to glycoconjugates in the intestine of the rat was investigated through plectin and lectin histochemical methods. The GPG, which was fed both by 0.04% paraquat and 3% green tea for 1 week, and the GGPG, which was applied with 0.04% paraquat and 3% green tea for 1 week after the 3% green tea in the drinking water was dosed for 3 weeks, appeared the recovering tendency to the control group. And the recovery of GGPG, comparing the degree, was more remarkable than that of GPG.

Inspected the changes in mucosubstances properties, neutral mucin of the duodenal gland decreased very notably in DPG and exhibited the recovering tendency in GPG and GGPG. The recovery degree was greater in GGPG. The decrease of mucin in goblet cells was more significant in upper villi and lower crypts of DPG, however, differences were in the portions of the small intestine and the decrease of acidic mucin was more noted than neutral mucin. The mucin amount of goblet cells which secretes strong sulfomucin and sialomucin decreased in both cells, This fact indicated that the former were more influenced than the latter. The green tea-administrated groups recovered the amount and property of mucin and the recovery tendency was stronger in GGPG.