

GLYCOCONJUGATE-SECRETING CELLS IN THE GASTROINTESTINAL TRACT OF THE GOLDEN APPLE SNAIL

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The functional morphology and anatomy of the golden apple snail gastrointestinal (GI) system was under studied. We identified glycoconjugate (Gly)-secreting cells with light microscopy and transmission electron microscopy (TEM). Staining of alcian blue pH 2.5 in combination with periodic acid Schiff revealed in the esophagus, intestine and rectum but not the stomach. The Gly-secreting cells were primarily pear shaped with some elongated cells. The apical regions of the cells were in contact with the GI tract lumen. Four different types of Gly-secreting cells (types A, B, C, and D) were identified using the TEM [1]. The Gly-secreting cells were scattered among epithelial cells. Type A cells were similar in shape and appearance to goblet cells. They contained completely electron lucent granules occupying the entire cytoplasm. Type B cells contained mostly moderate electron-dense granules. Type C cells consisted of granules with an unequal distribution of both moderate electron dense materials and high electron-dense materials, whereas type D cells contained only high electron-dense granules. Extrusion of the secretory materials from all cell types was often observed.

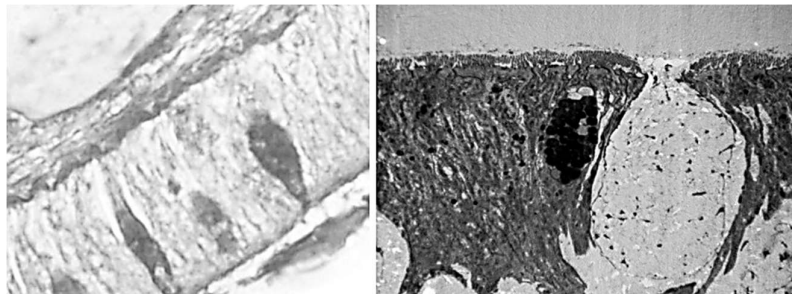


Figure 1 : Glycoconjugate-secreting cells in the gastrointestinal tract of the golden apple snail

Reference;

[1] I. Bravo Portela; V.S. Martinez-Zorzano; I. Molist- Perez; and P. Molist García, "Ultrastructure and glycoconjugate pattern of the foot epithelium of the abalone *Haliotis tuberculata* (Linnaeus, 1758) (Gastropoda, Haliotidae)," *The Scientific World Journal*, 2012, 1-12 (2012).