

Study of Hemolytic and Angiogenic Activity of different Extracts of the Digestive System of Cephalopods

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Abstract—Molluscs are one of the major phyla of invertebrate marine organisms which are well known for their bioactive secondary metabolites. Several antimicrobial, anticancer and antiviral agents have been extracted and isolated from cephalopods. This study was carried out to check for the presence of hemolytic and angiogenic activities in the extracts of prevalent cephalopods. *Cistopus indicus*, *Loligoduvauceli*, *Sepia aculeata* and *Sepiellainermis* were collected from Karwar port. The digestive system of these organisms, including the digestive glands was isolated and processed for extraction in four solvents. The extracts were tested for their hemolytic activity using chick and goat erythrocytes. They were studied for their effect on angiogenesis using CAM assay. The highest dilution which elicited hemolysis was the 32-fold diluted aqueous extract of *Sepia aculeata*. The aqueous and Chloroform: Methanol extracts of the digestive system of *Loligoduvauceli* and *Sepiellainermis* showed hemolytic activity on goat erythrocytes. The above extracts also affected the angiogenesis as studied by CAM assay. The authors thank Department of Biotechnology, Government of India for the financial grants provided to carry out this work.

Keywords: *Octopus*, Hemolysis, Chick Chorioallantoic Membrane.