Histomorphology of skin in 7 species of sea cucumbers from Persian Gulf (Hormozgan coasts)

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Abstract
The present study aimed to study the histological structure of body wall of sea cucumbers collected from the coasts of Persian Gulf in Hormozgan. In this regard, sampling was done from three regions in Hormozgan including Bandar Lengeh, Qeshm and Hormoz during 2010. 7 species including *Holothuriaparva, Holothuriaaraenicola, Holothuriaatra, Holothuriahilla, Holothurialeucospilota, Thyonedura, Protankyrapseudodigita* were indentified from the sampling sites. The histological structure of body wall was studied in all of collected species to evaluate the possible different among them. Firstly, all samples were anesthetized using magnesium chloride to prevent from visceral rejection and then fixed in 10% formalin. The samples were taken from body wall and then were processed through routine paraffin embedding technique, cut at 6 µm and stained with Hematoxylin and Eosin to study using light microscope. The results showed that the body wall consists of an epidermis, a dermal connective tissue layer, a layer of circular musculature and a mesothelium. Five pairs of longitudinal muscles are also observed in Holothuroids.

Keywords: Histology, Sea cucumber, Skin, Persian Gulf.