بسم الله الرحمن الرحيم

MONA MAGHRABY

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

MONA MAGHRABY

شبكة المعلومات الجامعية

التوثيق الإلكتروني والميكروفيلم

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

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Comparative micro morphological studies of pancreas on some species of birds

A thesis submitted by

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(BVSc, Cairo University, 2011; MVSc, Cairo University, 2015)

For the degree of the (Ph.D)

(Cytology and Histology)

Under Supervision of

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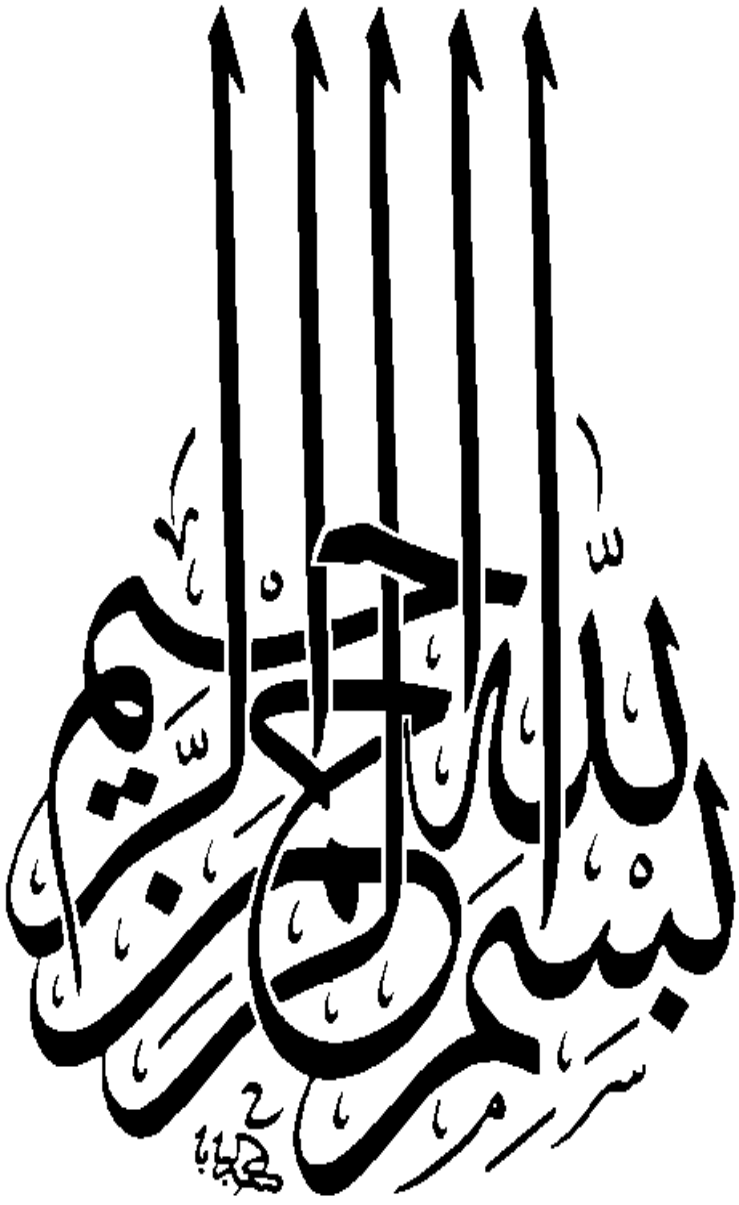
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Ph.D. Thesis

By

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(M.V.Sc. 2015; Cairo University)

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Abstract

The present study aimed to compare between the exocrine part of the pancreas of both Japanese quail and Cattle egret. It also aimed to throw more light on the endocrine part of the pancreas of Cattle egret. In both birds, the pancreas is located on the right side of the abdomen between the duodenal loops. The pancreas of Japanese quail composed of dorsal, ventral, third, and splenic lobes, while in Cattle egret the pancreas is not lobulated. The intralobular duct in Cattle egret was characterized by the presence of serous glands within its wall. Ultrastructurally, the acinar cells were of two types, electron-dense and electron-lucent cells. Histochemically, the interlobular duct of the Cattle egret positively reacted with alcian blue (pH1) and aldehyde fuchsin stains. In the endocrine part of Cattle egret pancreas, the pancreatic islets were encapsulated with incomplete capsules. These islets differentiated into three types: alpha, beta, and mixed islets. Alpha islet formed mainly of alpha cells and few beta cells while, beta islets appeared smaller and formed mainly of beta cells. Three types of cells could be differentiated alpha, beta and delta cells. By immunohistochemical localization of insulin, somatostatin, and pancreatic polypeptide receptors; the distribution and location of the endocrine cells in pancreatic islets were detected.

Keywords: Japanese quail, Cattle egret, Pancreas, Histology, Histochemistry, Immunohistochemistry and Ultrastructure.

Dedication

deepest thanks to ***my parents*** *for kind support and continuous encouragement through my entire life, also my sincere gratitude to my husband* ***Mahmoud Youssef*** *for his encouragement and help to complete this work.*

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