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Title of Thesis:

Morphological and Histological Study for Placental Development in Sheep

Abstract of Thesis:

The present study aimed to investigate the morphological and histological of sheep placentome. Twenty-one placenta from pregnant sheep were collected from the local slaughterhouse of Basra city at ages of (27, 50, 120) day of pregnancy. Fine dissected to the uterus of pregnant sheep were removed a nd open the uterus and remove the fetus, then the embryo age were determines according to Matthews and Murton (2012) by measurement the length of fetus by using an electronic vernia, then removed number of placentomes at randomly by cutting from its location and processing for the following: - 1- Morphological study which included shape, number, tip, weight, high and volume.

2- Histological study which include hematoxylin eosin staining, methyl-green-pyronin stain for demonstration of deoxyribonucleic acid (DNA) and fetal blood vessels, mallory's method stain for demonstration of collagen and periodic acid schiff's (PAS) for demonstration of glycogen deposite.

3- Immuonohistochemical studies which include the demonstration of estrogen, progesterone receptors and CD34 protein (cluster of differentiation 34).

The slides were examined by using a light microscope under different magnification power and photography by microscope connect with camera. Result were statistical analysis of data was performed on the basis of T-Test by using statistical program.

The present study showed that the shape of ovine placenta appeared as flat surface at day (27), while it changed its shape to convex form at day (50) and concave at day (120) of gestation. The placentomes were distributed in both horns of the pregnant uterus as four arrows along the placenta in each horn but their volumes in the pregnant horn were larger The immunohistochemical study of estrogen receptor showed at day (27) normal distribution in trophoblast cell and not present in binucleate cell, while showed on day (50) high density of estrogen receptor in trophoblast cell and also not present in binucleate cell compared to day (27) and also on day (120) show high density of estrogen receptor in trophoblast cell and not present in binucleate cell.

The immunohistochemical study of progesterone receptor appear on day (27) normal distribution in trophoblast cell and not pre sent in binucleate cell, while showed on day (50) high density of progesterone receptor in trophoblast cell and not present in binucleate cell, and also on day (120)

showed high density of progesterone receptor in trophoblast cell and also not present in binucleate cell.