

OKPOHO DAISY UWEM

18/MHS01/273

EMBRYOLOGY ASSIGNMENT

SUNDAY, MAY 10, 2020.

ASSIGNMENT

1. Discuss the 2nd week of embryonic development

ANSWER

During the 2nd week of embryonic development three things occurs

- a. Completion of implantation.
- b. Formation of a bi-laminar germ disc.
- c. Development of extra embryonic structures.

ON DAY 8

The blastocyst is partially embedded in the endometrium, syncytiotrophoblast continues to enroll the region of the endometrium. Cytotrophoblast will continue to divide and migrate into the deep region of the syncytiotrophoblast.

Embryoblast differentiate into hypoblast (cuboidal) and epiblast (columnar). The cells of the epiblast are called Amnioblast and they surround a cavity called amniotic cavity. The epiblast and hypoblast form the bi-laminar germ disc.

ON DAY 9

Blastocyst are deeply embedded in the endometrium; the surface epithelium is closed by the fibrin coagulum. a membrane that lies adjacent to the cytotrophoblast is called Heuser's membrane or Exocoelomic membrane. Cavity between the membrane and hypoblast is called the Exo-coelomic cavity or primary yolk sac.

ON DAY 10- 12

Blastocyst are completely embedded in the endometrium; vacuoles develop in the region of the syncytiotrophoblast they are called Trophoblastic Lacunae. Cytotrophoblast continues to divide and migrate. Capillaries are ruptured and these capillaries are sinusoids, sinusoids communicate

with the lacunae and blood moves from the mother to the child. A primordial utero-placental circulation is set up.

A space of mesoderm develops between the region of amnion and cytotrophoblast and also between the region Exocoelomic membrane and cytotrophoblast is formed and this space is called Extra-Embryonic mesoderm. A cavity develops and it is called Extra-embryonic cavity. The part of the mesoderm that lines the cytotrophoblast is called the extra embryonic mesoderm. The mesoderm lining the Amnion and exocoelomic membrane is called the Extra-Embryonic Splanchnic mesoderm. A reaction takes place here and it is called DESIDUAL REACTION it involves the accumulation of glycogen and lipids in the cytoplasm of the endometrium cells.

ON DAY 13

The surface of the endometrium has been completely covered by the surface epithelium. increased blood flows from the lacunar spaces. Cytotrophoblast acquires syncytium (Primary Villi) that extends into the syncytiotrophoblast, the connecting stalk gives rise to the embryonic umbilical cord and the extra embryonic cavity expands to form the chorionic cavity. Primary yolk sac becomes smaller to form a secondary yolk sac. A portion of it was pinched off to form exocoelomic cyst.