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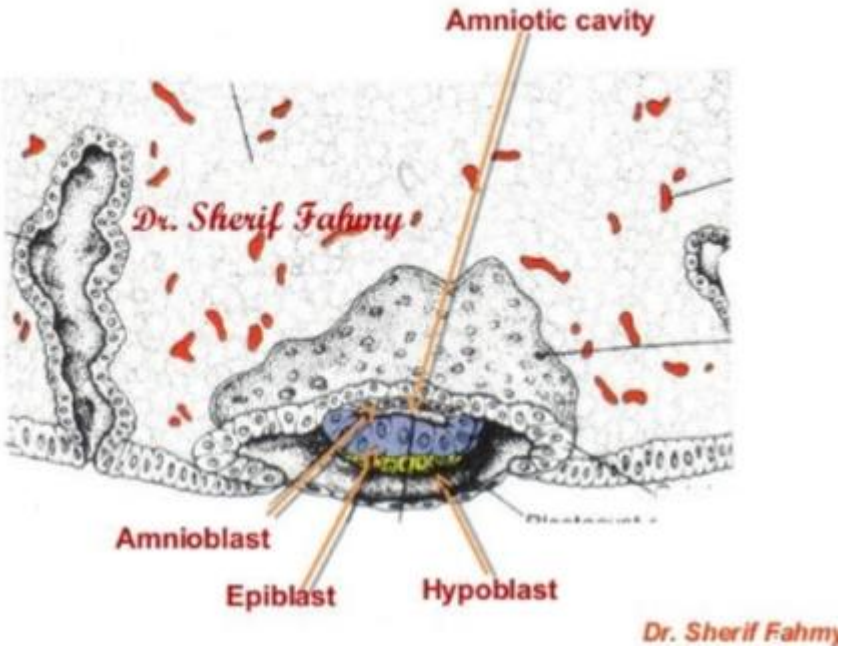
Matric number: 18/mhs01/050

Course: Embryology

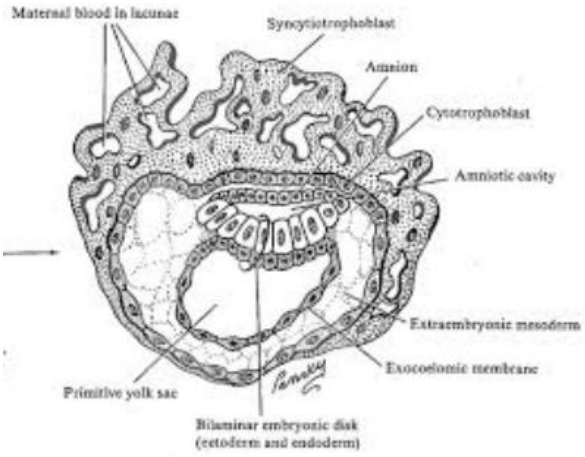
College: Medicine and Surgery

Write on the Second week of development

Day 8: The blastocyst is partially embedded in the endometrium. The syncytiotrophoblast continues to erode into the endometrium and the cells of the cytotrophoblast continues divide and migrate into the region of the syncytiotrophoblast. The inner mass called the embryoblast differentiates into two types of cells, the hypoblast which is cuboidal and epiblast which is columnar. The cell of epiblast close to the cytotrophoblast is called the amnioblast. A cavity between the amnioblast and epiblast is called the amniotic cavity or amnion. Cells of both the epiblast and hypoblast is called the bilaminar germ disc.



Day 9: The blastocyst is deeply embedded in the endometrium and the opening g is covered by a coagulum called Fibrin coagulum. The syncytiotrophoblast will continue to erode the endometrium and the cells of the cytotrophoblast continues to divide and migrate into the system syncytiotrophoblast. A membrane lines the cytotrophoblast called exocoelomic membrane or Heuser's membrane and it

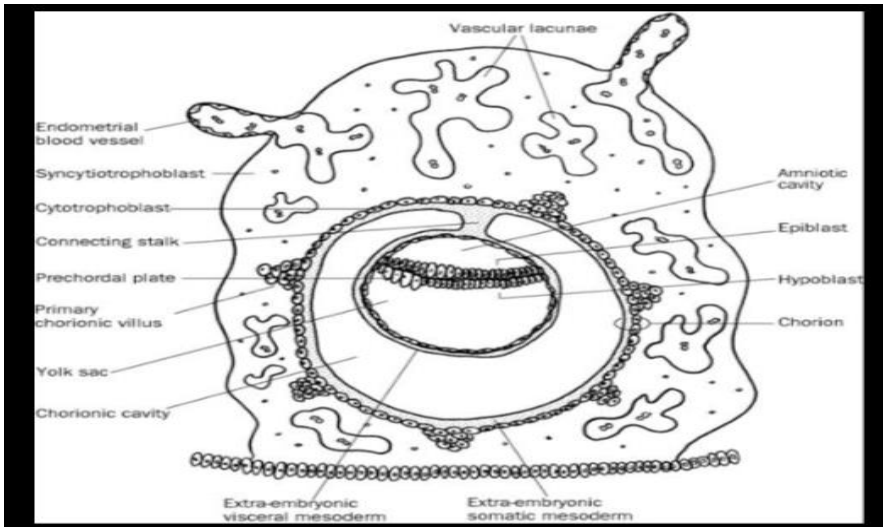


surrounds a cavity called exocoelomic cavities or primitive yolk or primary umbilical vesicle. Vacuoles develop in the region of syncytiotrophoblast which later gets bigger and its called trophoblastic lacunae.

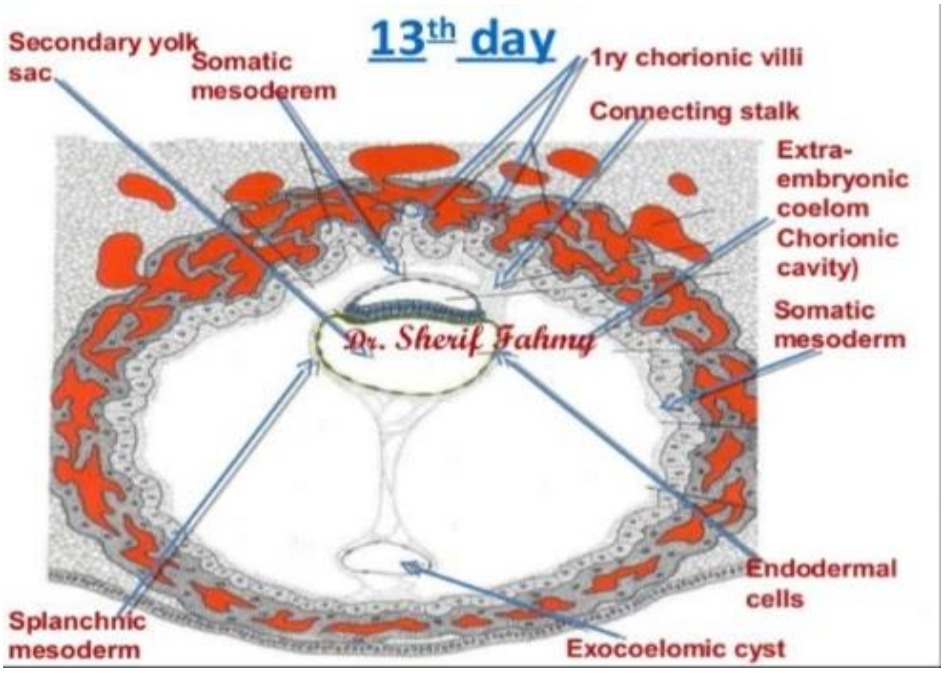
Day 11-12: The blastocyst is completely embedded in the endometrium. The cytotrophoblast will continue to divide and migrate into the synch rooftop ho last. The synch tiptop ho last will continue to erode into the endometrium and will cause the blastocyst to be rupturing capillaries as it erodes. The ruptured capillaries are called Sinosoid. This will lead to the establishment of primordial uteroplacental circulation in which the ruptured capillaries will communicate with the trophoblastic lacunae as there'll be blood contact and therefore transfer of nutrients and materials.

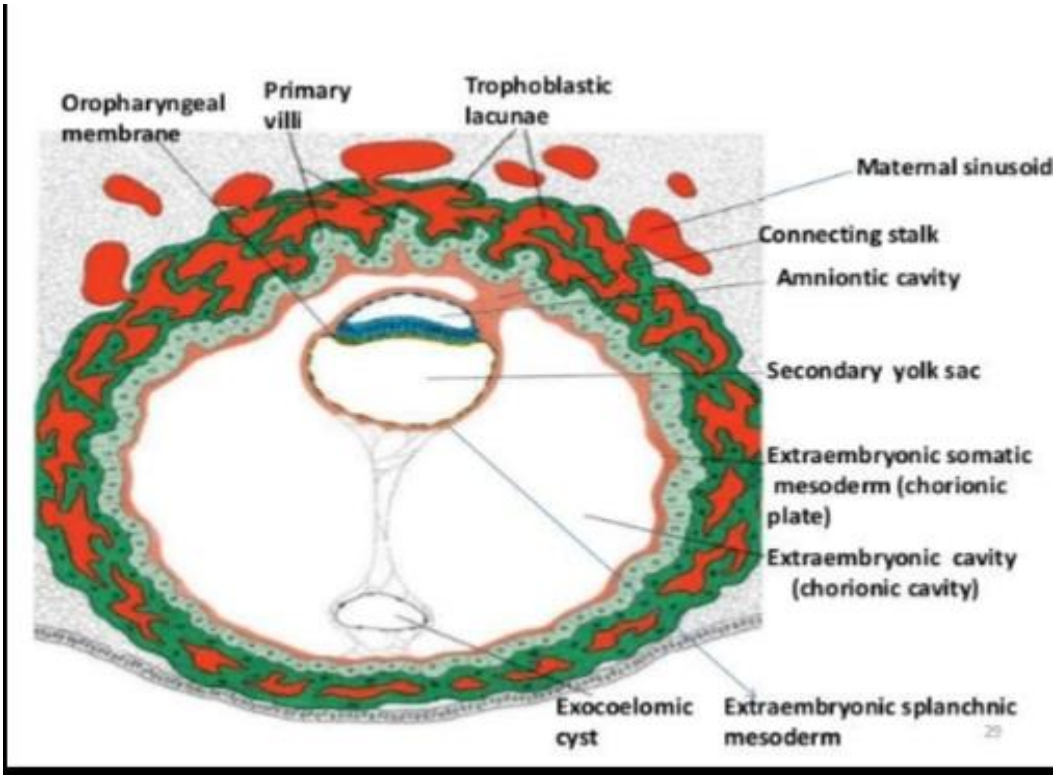
A space of mesoderm occupies the region between the exocoelemic membrane/ amnioblast and cytotrophoblast except at a point called the connecting stalk. This space is called extra embryonic mesoderm. There's a cavity called extraembryonic cavity or coelom that divides the extraembryonic mesoderm into two parts. The part close to the region of cytotrophoblast is called extraembryonic somatic mesoderm while the other part close to the exocoelomic membrane is called extraembryonic splanchnic membrane.

As it implants, the endometrial connective tissue cells underground transformation called decidual reaction. During this transformation the cells of the endometrium swells because of the accumulation of glycogen and lipids in their cytoplasm. These cells are known as decidual cells. The function of this decidual reaction is to provide nutrition and immunological privilege site to conceptus.



Day 13: The cells of the cytotrophoblast extends into the syncytiotrophoblast in which it forms a cellular column covered by syncytium. The primary yolk sac decreases in size and is called the secondary took sac or secondary umbilical vesicle. The extracoelomic cavity enlarged and is called the chorionic cavity except the Connecticut stalk which is then called umbilical cord. The primary yolk sac pinches off to form exocoelomic cyst and is located at the extracoelomic cavity.


13th day
Secondary yolk sac
Somatic mesoderem
1ry chorionic villi
Connecting stalk
Extra-embryonic coelom Chorionic cavity)
Somatic mesoderm
Dr. Sherif Fahmy
Endodermal cells
Splanchnic mesoderm
Exocoelomic cyst


Oropharyngeal membrane
Primary villi
Trophoblastic lacunae
Maternal sinusoid
Connecting stalk
Amniontic cavity
Secondary yolk sac
Extraembryonic somatic mesoderm (chorionic plate)
Extraembryonic cavity (chorionic cavity)
Exocoelomic cyst
Extraembryonic splanchnic mesoderm
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