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Human Anatomy

ANA 206

Systematic embryology

Write on the following:

I)Development of the lungs

II)Rotation if the stomach and the formation of the omental bursa

III)Development of the esophagus

Answers

I)Lungs is derived from ectoderm, while the mesoderm is the origin of the pulmonary blood vessels, smooth muscle, cartilage and other connective tissue. The pseudoglandular stage takes place between the 7th and 16th week of embryonic development. Conducting airways are formed by progressive branching.

II)The stomach rotates 90 degrees, the spleen is displaced to the left and the liver moves to the right . The peritoneum twists with these movements which leads to the formation of the falciform ligament, the lesser omentum and the coronary ligaments of the liver.

The formation of the omental bursa- the omental bursa it lesser sac is hollow space that is formed by the greater and lesser omentum and it’s adjacent organs. It communicates with the greater sac via the epiploic foramen of Winslow, which is known as the general cavity of the abdomen that sits within the peritoneum, but outside the lesser sac.

III)in early embryogenesis, the esophagus develops from the endodermal primitive gut tube. The ventral part of the embryo abuts the yolk sac. During the second week of embroyological development, as the embryo grows, it begins to surround parts of the sac. The esophagus develops as part of the foregut tube