



# Histogenesis of Liver of Dandarawi Chicken

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## Abstract:

**Background:** the chick embryo act as a model for embryology and its liver development is of special interest. There is a lack in literatures about morphogenesis of liver of chicken. **Methods and Results:** 50 chick embryo of Dandarawi chicken were collected from Assiut University Farm at 3, 5, 7, 9, 11, 13, 15, 17 and 19 day of prehatching life. At 3rd day of incubation, the parenchyma of the liver was consisted mainly of hepatic cords and some acini. At 5th day, the liver consisted of a mass of hepatic cells and hepatic sinusoids, the hepatocytes divided into dark and light cells. At 7th day, the light cells became numerous, and then they gradually decreased to reach their minimum level at 13th day, but at 15th day of incubation these cells were difficult to be observed. The apical borders of hepatocytes bear microvilli, which had maximum length at 7th day then decreased gradually till 19th day of incubation. Also, the bile canliculi was wide at 7th day and then became narrow to reach the narrowest level at 19th day of incubation. The amount of lipid increased gradually from 7th day to gain its maximum at the 19th day. The glycogen began to increase gradually to gain its maximum at 9th day and reached the lowest level at 11th day, then increased in 13th day and continued at this level till end of incubation. The gall bladder was firstly observed at the fifth day of incubation on the periphery of the right lobe and lined by pseudo stratified columnar epithelium from 5th to 7th day and from 9th to 19th incubation day, the epithelium became simple columnar. **Conclusion:** histogenesis of liver and gall bladder of Dandarawi chicken were described and discussed at different prehatching ages.

## Keywords:

Histogenesis, liver, development, Dandarawi chicken

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