



Cytochemical studies for identification of blood cell in embryos of *Gallus gallus domesticus*

*Khayatzadeh J. , **Mahdavi N. ,** Freydoni M. , *Majidi S. ,

*: *Dep. of Biol. , faculty of science, Azad university of Mashad*

** : *Dep. of Biol. , faculty of science, Ferdowsi university of Mashad*

Because of importance of blood cell differentiation in biology and medicine, the aim of this study was investigation of development, morphology and cytochemistry of blood cells in chick embryo. This might be suitable model for embryology and biology labs or therapeutic uses for anemia and blood cancers. In this project we used egg- sperms of *Gallus gallus domesticus*, put them in incubator with 38 C (temperature) and 40% humidity. From 2 days after start of incubation until day 365 sampling and smear of its blood was done. The smear was dried, fixed and colored with Gymsa, PAS and black sudone B. our results showed that in different stages of blood cell development, erythrocyte cell diameter and their nucleus diameter became smaller. The number of erythrocyts were increased at the end of embryonic stage. PAS staining results was negative at all stages. In black sudone B only eosinophiles and some erythrocyts were positive. It seems that each blood cell at specific stages of cell differentiation show a specific cytochemical behavior

Key words: blood cell, chick embryo. *Gallus gullus*