Abstract

Adenohypophysis is very important gland in vertebrate head. In general adenohypophysal development is described together with formation of the primary mouth. Adenohypophyseal placode migrates together with stomodeal placode in ventral direction. Stomodeal placode starts to invaginate and from oral ectoderm adenohyphyseal placode invaginates to form Rathke's pouch. Pouch is then separated from mouth and migrates towards the brain to make adult hypohyseal gland. Origin of adenohypophysis is therefore in oral ectoderm, but in some vertebrates species is this development little different and adenohypophysis can even be endodermal. In some vertebrate groups, like amphibians or fishes there's no sign of Rathke's pouch, thus early migrations of adenohypophyseal placode can be different. These differences are there maybe because these groups don't have shallow invagination of stomodeum like other vertebrates. There are some homological structures in other chordate groups, for example Hatshek's pit in amphioxus or neural gland in tunicates, these structures has, in contrast with vertebrates, endodermal origin.

Key words: adenohypohysis, placodes, primary mouth, craniofacial development, Rathke's pouch, vertebrates