ABSTRACT

The aim of the thesis is to make a review of academic literature and databases related to topics of embryonal and fetal development, morphology and physiology of male gonads.

This work describes also the genetic determination of sex development. One chapter is dedicated to describing two methods (histological method and FISH), which are used to diagnosing diseases related to mistakes in ontogenesis.

The last chapter deals with two diseases – the Klinefelter syndrome as the most frequent numeric gonosomal aberration of men, and persistent Müllerian duct syndrome as a defect of development of men with normal karyotype.

Finally, the complexity of topics of this thesis is discussed.

Key words: germ cells, spermatogenesis, sex determination, Klinefelter syndrome, persistent Müllerian duct syndrome