

HD-10: SEXUAL DIFFERENTIATION

Learning Objectives

Sexual development occurs early in fetal life and involves the interaction of the genetic sex of an individual, in other words the chromosomal sex which influences the gonadal sex which in turn influences phenotypic sex. This hypothesis which is more than 50 years old was put forward by Dr. Alfred Jost and is probably as valid as any other that we have to work with today.

We will look at the interactions of both the X and Y chromosome in the development of both testis and ovary in the fetus and we will then look at the influence of the gonadal hormones including testosterone, and dihydrotestosterone in development of phenotypic sex.

We will discuss various disorders of sexual ambiguity in the newborn infant including:

- True hermaphroditism.
- Gonadal dysgenesis.
- Female pseudohermaphroditism.
- Male pseudohermaphroditism.

The diagnostic pursuit of these various defects will be outlined as well as the potential management and outcome for each of the listed sexual ambiguities.