Sexual ambiguity or intersexual is congenital abnormalities in which patient anatomically has both characteristic of male and female genitalia. Hormones were considered as the main cause of sexual ambiguity, but as medical genetic; progress today, genetic factor is actually the main cause of it. Therefore, doctor needs phenotype and genotype information to establish the diagnosis, plans of the right therapy, and designs counseling for patients and their families. The aim of this study is to describe cytogenetic profile of patients with sexual ambiguity and hypospadia examined in cytogenetic laboratories in Semarang during October 1991 - April 2004. A descriptive study approach was used to analyze 134 retrospective and prospective data from 2 laboratories. The results showed that 13 patients (9.7%) had chromosome abnormalities and 17 patients (12.7%) had unmatched phenotype and genotype. Molecular and hormonal studies are needed to establish the accurate diagnosis and determine the etiology of those anomalies.