

Fetal Ilium as a Tool for Sex Determination: Discriminant Functional Analysis

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Abstract : Sex determination has been the most intriguing puzzle for forensic pathologists and anthropologists, for which efforts have been made for a long. Sexual dimorphism is well established in the adult pelvis, and it is known to provide the highest level of information about sexual dimorphism. This study was conducted to know whether this dimorphism exists in fetal bones or not. A total of 34 pairs of fetal pelvis bones (22 males and 12 Females), ages ranging from 4 months to full term, were collected from unidentified dead fetuses brought to the Department of Forensic Medicine for routine medicolegal autopsies to study for sexual dimorphism in the Department of Anatomy, Pt. BD Sharma PGIMS, Rohtak. Samples were divided into 2 age groups, and various metric parameters were recorded with the help of a digital vernier caliper. Data obtained was subjected to descriptive and discriminant functional analysis. Results of Descriptive and Discriminant Functional Analysis showed that sex determination can be done with 100% accuracy by using different combinations of parameters of fetal ilium. This study illustrates that sexual dimorphism exists from early fetal life after mid-pregnancy; it can be clearly established by discriminant functional analysis.

Keywords : Ilium, fetus, sex determination, morphometric

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