

AN OBSERVATIONAL STUDY ON THE HUMAN ACETABULUM IN SOUTH INDIAN FETUSES AND ADULT POPULATION.

ABSTRACT

Acetabulum (**acetum - vinegar, abulum - saucer or cup**) is a bony component of hip bone. Anatomical, evolutionary, Anthropological, Histopathological, Forensic, Orthopedic and Radiological significance of **Acetabulum** were analysed and the dissertation plot was designed based on the acetabulum.

In **100 dry hip bones**, the **acetabular diameter, acetabular depth, capacity of acetabulum and types of anterior acetabular ridge** were observed. On statistical analysis, there was significant difference observed in the morphometric parameters when it is based on gender, there was no significance when based on sides.

In **30 cadaveric hip bones** the **acetabular diameter, acetabular depth and capacity of the acetabulum** were analysed. There was significant difference observed in the morphometric parameters when it is based on gender, there was no significance when based on sides.

In **105 Xray pelvis (AP view)**, the **CE angle, AD, AA, AIA, RA, ARO, EI, LS, DTW, JSW and PED** were measured. CE angle, AD, RA, LS, PED and JSW were the parameters observed to have statistically significant difference with respect to gender but not with sides.

In **CT abdomen and pelvis (50)** (100 acetabula) (24 males , 26 females) (50 right and 50 left) **CE angle, AD, AA, AIA, RA, ARO, EL,LS,DTW, AV, JSW, PED, AASA and PASA** were measured. When statistically analyzed AD, RA, AA, LS, PED and JSW were the parameters observed to have significant difference with respect to gender but not with sides.

In **30 (15 males and 15 females)** fetuses(12 to 40 weeks), the **acetabular diameter, acetabular depth and shape of the acetabulum** were measured. The diameter and depth of the acetabulum increased with the age of the fetuses and the shape of the acetabulum became less hemispherical as the age advanced, thereby the socket was converted into a shallow cavity. The results were statistically apprehended.

Keywords: Acetabulum, Dry, Cadaveric, X rays, CT, Fetus.