

Sexual Dimorphism in Craniometric Characteristics of Occipital Bone in Adult Human Skulls from West Bengal, India

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ABSTRACT In human evolution, changes in the anatomical features of skull were related to bipedalism and increase in brain volume. Three important landmarks on occipital bone are asterion (ast), inion (i) and opisthocranium (op). Objectives: To observe sexual dimorphism of craniometric characteristics (CC) and to estimate sex using a linear dimension (i-op length) and the area of triangle (bilateral) formed by the three landmarks. Methods: A sample included 24 skulls of adult humans (12 males). The CC included linear measurements between i-op, i-ast, and op-ast, an index (i-op length / i-ast length x 100), area and perimeter of the triangle involving three landmarks. Results: Higher mean values of CC in male skulls were observed than in female skulls with significant sex difference ($p < 0.001$). Discriminant function analysis models using the variables (i-op length and area of triangle) correctly estimated sex (>83 %) of unknown adult individuals.