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The use of Bjork's indicators of growth for evaluation of extremes of skeletal morphology.

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Backround: Morphological indicators within the cranium for prediction of mandibular growth patterns as reported by Bjork are: (1) inclination of the condylar head (ICH), (2) curvature of mandibular canal (CMC), (3) shape of the lower border of the mandible and specifically depth of the antegonial notch (AN), (4) inclination of the symphysis (ISY), (5) interincisal angle (IIA), (6) intermolar angle (IMA), and (7) lower anterior face height (LAFH). The purpose of this study was to examine the association of these indicators as they relate to extreme skeletal patterns observed in skeletally mature subjects. Materials: The pre-treatment lateral cephalometric radiographs of 395 post-growth subjects were randomly selected from the archives of a university orthodontic department. These were divided in three groups according to their MP-SN angle [normal: 28–36 degrees (G1), hypodivergent: ≤26 degrees (G2), hyperdivergent: ≥38 degrees (G3)]. Results: It was found that only LAFH was correlated to age across all groups. However, within G1, G2, and G3, and between genders, it was found that there were statistically significant differences for all indicators in relation to age, except IMA ($P > 0.05$). In addition, ISY and IMA had a predictivevalue lower than the chance level (0.5). Conclusion: Bjork's implant studies have contributed much to understanding facial–skeletal growth; however, this study suggests that their utilization as a tool in classifying extreme skeletal patterns requires careful evaluation of all the parameters involved.