

## **A Cephalometric Superimposition of a Skeletal Class III Orthognathic Patient on Nasion-Sella Line**

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**Abstract :** The Nasion-Sella Line (NSL) has been used for several years as a reference line in longitudinal growth study. Therefore this line is considered to be stable not only to evaluate treatment outcome and to predict relapse possibility but also to manage prognosis. This is a radiographic superimposition of an adult male aged 19 years who complained of difficulty in aesthetic, talking and chewing. Patient has a midface hypoplasia profile (concave). He was diagnosed to have a severe Skeletal Class III with Class III malocclusion, increased lower vertical height, and an anterior open bite. A pre-treatment cephalometric radiograph was taken to analyse the skeletal problem and to measure the amount of bone movement and the prediction soft tissue response. A panoramic radiograph was also taken to analyse bone quality, bone abnormality, third molar impaction, etc. Before the surgery, a pre-surgical cephalometric radiograph was taken to re-evaluate the plan and to settle the final amount of bone cut. After the surgery, a post-surgical cephalometric radiograph was taken to confirm the result with the plan. The superimposition using NSL as a reference line between those radiographs was performed to analyse the outcome. It is important to describe the amount of hard and soft tissue movement and to predict the possibility of relapse after the surgery. The patient also needs to understand all the surgical plan, outcome and relapse prevention. The surgical management included maxillary impaction and advancement of Le Fort I osteotomy. The evaluation using NSL as a reference was a very useful method in determining the outcome and prognosis.

**Keywords :** Nasion-Sella Line, midface hypoplasia, Le Fort 1, maxillary advancement

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