**Table 1 Descriptions of the cephalometric measurements**

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| --- | --- | --- |
| **Features** | **Unis** | **Description** |
| Gender | - | Females are 0 and males are 1. |
| SNA | ° | Reflcting relationship of the maxilla to the cranial base. |
| N-A(//FHP)  | mm | Reflcting relationship of the maxilla with the nasal root |
| ANB | ° | Indicating the magnitude of the skeletal jaw discrepancy. |
| N-ANS/ANS-Me  | % |  |
| OP-FHP | ° | Angle between the occlusal plane and the Frankfurt horizontal plane |
| U1-Stms  | mm | Static teeth exposure |
| 1/-PP | ° | The intersection of the long axis of the upper central incisor and the palate plane |
| Nasolabial angle | ° | Nasolabial angle |
| Ls-EP | mm | The distance of upper lip to aesthetic plane. |
| OP-FHP  | ° | Angle between occlusal plane and Frankfurt horizontal plane |
| Or(R)-U6(R)/Or(L)-U6(L)  | % | Reflecting the asymmetrical of maxilla in vertica |
| U6(R)Z/ U6(L)Z | % | Reflecting the asymmetrical of maxilla in sagittal |
| U6(R)-Palate/U6(L)-Palate | % | Reflecting the asymmetrical of maxilla in vertical |
| SNB | ° | Reflcting relationship of the mandible to the cranial base. |
| N-B(//FHP) (mm) | mm | Reflcting relationship of the mandibular with the nasal root |
| N-Pog(//FHP) (mm) | mm | Reflcting relationship of the chin with the nasal root |
| Sn-Stms/Stms-Me’  | % | Ratio of lower one-third face height |
| MP-FHP (°) | ° | Mandibular plane angle |
| /1-MP  | ° | The intersection of the long axis of the lower central incisor and the mandibular plane |
| Si-LiPog’  | mm | The depth of Mentolabial sulcus |
| Li-EP  | mm | The distance of lower lip to aesthetic plane. |
| Go-Pog(R)/Go-Pog(L) | % | Mandibular body symmetry on both sides |
| Co-Go(R)/Co-Go(L)  | % | Mandibular ramus symmetry on both sides |
| Pog-MSP (mm) | mm | Deflection of the mentum |
| IIA | ° | Angle between line through long axis of upper incisor and lower incisor |
| Overbite | mm | The vertical distance between the edges of upper and lower incisors. |
| Overjet | mm | The projection distance of the upper and lower central incisors' cutting edges on the occlusal plane. |

**Table 2 Descriptions of the Three-dimensional landmark**

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| **Landmark** | **Description** |
| N | The midpoint of the nasal frontal suture. |
| S | The central point of the pituitary fossa. |
| G | The most convex point of the soft tissue contour of the eyebrow arch on the median sagittal plane. |
| Stms | Midpoint of lower margin of upper lip on midsagittal plane. |
| ZA(R) | The most convex point lateral of the right zygomatic arch. |
| ZA(L) | The most convex point lateral of the left zygomatic arch. |
| Go(R) | The most backward and lowermost point of the right mandibular Angle. |
| Go(L) | The most backward and lowermost point of the left mandibular Angle. |
| Co(R) | Apex of right condyle. |
| Co(L) | Apex of left condyle. |
| Po | The midpoint of the connection between the uppermost points of the bilateral external auditory meatus. |
| Or(R) | The lowest point of the right osseous inferior orbital margin. |
| Or(L) | The lowest point of the left osseous inferior orbital margin. |
| U1 | The point at the mesial incisor of the maxillary central incisor crown. |
| U6(R) | Mesial buccal cusp of right maxillary first molars. |
| U6(L) | Mesial buccal cusp of left maxillary first molars. |
| A | The most concave point of the superior alveolar ridge on the midsagittal plane. |
| FA | The midpoint of buccal central point of maxillary central incisors. |
| ANS | The midpoint of the most anterior part of the anterior maxillary nasal spine. |
| L1 | The point at the mesial incisor of the mandibular central incisor crown. |
| L6(R) | Mesial buccal cusp of right mandibular first molars. |
| L6(L) | Mesial buccal cusp of left mandibular first molars. |
| B | The most concave point of the inferior alveolar ridge on the midsagittal plane. |
| Me | The median mandibular union is at the lowest point of the median sagittal plane. |
| Pog | The most anterior point above the mandible and chin on the central sagittal plane. |