



Supplementary Materials

Supplementary Table S1. Patient information included in the study.

| Patient | Gender | Age (M: 29,7) | MMD | Surgical Treatment | CAD/CAM System | Type of Osteotomy |
|---------|--------|------------------|---------|--------------------|----------------|-------------------|
| 1 | F | 33 | III, CH | 1, 2, 3 | P | MO |
| 2 | F | 32 | II, OB | 1, 2 | P | SO |
| 3 | M | 53 | III, CH | 1, 2, 3 | P | MO |
| 4 | M | 27 | II, OB | 1,2, 4 | P | MO |
| 5 | M | 26 | II | 1, 2 | P | SO |
| 6 | F | 25 | II, OB | 1, 2 | S | SO |
| 7 | M | 23 | III | 1, 2, 4 | S | MO |
| 8 | F | 19 | III | 1, 2 | S | MO |
| 9 | F | 32 | III | 1, 2 | S | SO |
| 10 | M | 27 | III, CH | 1, 2, 3, 4 | S | MO |

Legend: MMD (Maxillo-Mandibular Disease): II = Class II malocclusion, III = Class III malocclusion, OB = Open-Bite, CH = condylar hyperplasia; Surgical treatment: 1 = Le Fort I osteotomy, 2 = bilateral sagittal split osteotomy, 3 = condilectomy, 4 = genioplasty; CAD/CAM system: P = PSIs (Splintless-cutting guides and custom-made plates); S = occlusal splints; Type of Maxillary Osteotomy: MO = monobloc (Le Fort I), SO = segmental osteotomy.

Supplementary Table S2. Summary of the 3D comparison (RMSE) in the three groups analyzed.

| | Splintless (RMSE) | SD | Splint (RMSE) | SD | <i>p</i> -Value |
|----------------------------|-------------------|-------|---------------|-------|-----------------|
| Total | 1.2167 | 0.456 | 1.633 | 0.303 | 0.09 |
| Monobloc Osteotomy | 0.9194 | 0.062 | 1.7839 | 0.311 | 0.02 |
| Segmental Osteotomy | 1.6627 | 0.405 | 1.4068 | 0.069 | 0.23 |