**Table 1: Wire sequence used by the two clinicians during treatment procedure.**

|  |  |  |
| --- | --- | --- |
| Clinician A (MBT) | Clinician B (MBT) | Clinician B (SEW) |
| 0.016 NiTi | 0.016 NiTi | 0.016 NiTi |
| 0.016 Stainless Steel | 0.014 Stainless Steel | 0.014 Stainless Steel |
| 0.018 Stainless Steel | 0.016 Stainless Steel | 0.016 Stainless Steel |
| 0.016 \* 0.022 Stainless Steel | 0.018 Stainless Steel | 0.018 Stainless Steel |
| 0.017 \* 0.025 Stainless Steel0.019 \* 0.025 NiTi | 0.016 \* 0.022 Stainless Steel | 0.016 \* 0.022 Stainless Steelor |
|  |  | 0.019 \* 0.025 Beta Ti |

**Table 2: Number of quadrants assessed for root parallelism of canines and 2nd premolars in 1st premolar extraction cases.**

|  |  |  |  |
| --- | --- | --- | --- |
| Quadrants  |  MBT |  SEW | Total |
|  Upper right  |  55 |  59 |  114 |
|  Upper left  |  55 |  59 |  114 |
|  Lower right  |  55 |  57 |  112 |
|  Lower left  |  56 |  57 |  113 |

**Table 3: Comparative analysis of treatment procedure duration in 1st premolar extraction cases assessed for root parallelism of canines and 2nd premolars.**

|  |  |  |
| --- | --- | --- |
| Treatment procedures duration (day)Mean + SD | Group | P. value |
|  MBT |  SEW |
| Class II elastic  | 117.93 +165.27 | 90.08 + 100.33 | 0.106 |
| Class III elastic | 13.93 + 49.72 | 28.13 + 62.97 | 0.047 |
| Maxillary gable  | 1.14 + 6.78 | 0.49 + 3.91 | 0.511 |
| Mandibular gable | 7.19 + 25.53 | 12.75 + 29.33 | 0.257 |
| Maxillary rectangular wire | 88.38 + 106.77 | 2.71 + 21.54 | <0.0001 |
| Mandibular rectangular wire | 113.00 + 129.11 | 3.59 + 19.02 | <0.0001 |

**Table 4: Comparative analysis of post-treatment angulation between canines and 2nd premolars in 1st premolar extraction cases.**

|  |  |  |  |
| --- | --- | --- | --- |
| Parallelism |  Maxilla |  |  Mandible |
|  MBT N (%) |  SEW N (%) | p.value |  MBT N (%) |  SEW N (%) | p.value |
| Good  |  62 (56.4) |  60 (50.8) |  0.207 |  62 (55.9) |  65 (57) | 0.563 |
| Acceptable  |  15 (13.6) |  21 (17.8) |  26 (23.4) |  19 (16.7) |
| Poor  |  13 (11.8) |  7 (5.9) |  6 (5.4) |  8 (7) |
| Over |  20 (18.2) |  30 (25.4) |  17 (15.3) |  22 (19.3) |
| Mean + SD | 1.03 + 7.83 | -0.37 + 7.46 |  0.170 | 7.23 + 8.39 | 6.35 + 8.84 |  0.443 |