**Participant flow**



**Baseline characteristics**

Chi square test was used. P value < 0.05 is considered as significant.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Variables | Cirumferential matrix band | Sectional matrix band | Total | P value |
| Dental Cavities in Male patients | 304 | 304 | 608 | 0.523 |
| Dental Cavities in Female patients | 296 | 296 | 592 |  |
| Treated by 4th year dental students | 295 | 305 | 600 |  0.302  |
| Treated by 5th year dental students | 305 | 295 | 600 |  |
| Tight contact points | 31 | 41 |  |  |
| Open contact points | 569 | 170 | 739 | 0.000 |
| Optimum contact points | 0 | 389 | 389 |  |
| Positive overhanged margins | 62 | 80 | 142 |  |
| Negative overhanged margins | 95 | 37 | 132 |  0.000 |
| Absent over-hanged margins | 443 | 483 | 926 |  |
| Amalgam restoration done | 79 | 60 | 139 |  0.052 |
| Composite restoration done | 521 | 540 | 1061 |  |
| Supragingival margins of cavity | 303 | 340 | 643 |   0.001 |
| Subgingival margins of cavity | 188 | 132 | 320 |  |
| Cavity margins at the level of gingiva | 109 | 128 | 237 |  |

**Outcome measures**

Table 1: Association of Matrix band system with proximal contacts (Chi Square test was used at 95% confidence interval, α = 5%)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Matrix band system used |   | Proximal  | Contacts  |  | P values |
|  | open contacts | tight contacts | optimum contacts | Total |  |
| circumferential | 569 | 31 | 0 | 600 | 0.000 |
| sectional | 170 | 41 | 389 | 600 |  |
| Total | 739 | 72 | 389 | 1200 |  |

Table 2: Association of Matrix band system with proximal margins (Chi Square test was used at 95% confidence interval, α = 5%)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Matrix band system used |   | Proximal  | margins  |  | P values |
|  | positive overhangs | negative overhangs | Absent overhangs | Total |  |
| circumferential | 62 | 95 | 443 | 600 | 0.000 |
| sectional | 80 | 37 | 483 | 600 |  |
| Total | 142 | 132 | 926 | 1200 |  |

**Adverse Events**

There were no adverse events associated with this trial.