Semilunar Coronally Positional Flap and Subepithelial Connective Tissue Graft in Root Coverage Procedure

**Title:** Clinical comparison of semilunar coronally positional flap and subepithelial connective tissue graft in root coverage procedure

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**Background and Aim:** Several surgical approaches have been used to achieve root coverage. The Subepithelial Connective Tissue Graft (SCTG) procedure has been shown to be a predictable means to treat gingival recession. Semilunar Coronally Positioned Flap (SCPF) is a simple mucogingival surgery to cover the exposed root surface without harvesting the palatal connective tissue. The purpose of this study is to compare the outcome of gingival recession therapy using SCTG and SCPF.

**Materials and Methods:** Forty Miller class I buccal gingival recessions (≥2mm) were selected. Recessions were randomly assigned to receive either the SCPF or SCTG. Recession Height (RH), Recession Width (RW), Width of Keratinized Tissue (WKT), Probing Depth (PD), Clinical Attachment Level (CAL), were measured at baseline, 1, 3, and 6 months after surgery. The data were analyzed using independent t-test and Repeated Measure ANOVA.

**Results:** The average percentages of root coverage for SCPF and SCTG were 88% and 71%, respectively; and the complete root coverage observed were 55% and 45%, respectively. There were no significance differences between the two groups with regard to RW, PD, CAL, WKT (except in the third month after surgery which was slightly greater in SCPF group). RH was significantly decreased from 2 to 6 months after surgery in SCPF group.

**Conclusion:** The findings from this study indicate that if the tissue thickness and initial width of keratinized tissue are sufficient, SCPF may be a good substitute for SCTG in treatment of Miller class I gingival recessions.

**Key Words:** Subepithelial Connective Tissue Graft; Semilunar Coronally Positioned Flap; Gingival Recessions; Root Coverage

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**Check:** زمینه و هدف: نا به امر از روش های جراحی مجددی جهت پوشش سطح ریشه های عربان استفاده گردیده است. در این خصوص روش های جراحی غیر مکانیسم توال Subepithelial Connective Tissue Graft (SCTG) به عنوان روشی موثر شناخته شده است. از ميايان جراحی های مکانیسم توال Semilunar Coronally Positioned Flap (SCPF) بيمار نيي پانش. هدف این مطالعه، مقايسه نتایج اين دو روش در پوشش سطح ریشه است.

**نمر مسئول:** شناس: اهامز - دانشگاه علوم پزشکي جندي شاپور - دانشکده دندانپزشکي - کروه ازموزي پرودنتيکس

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**Semilunar Coronally Positional Flap (SCPF)**

**M Miller class I**

Semilunar Coronally Positioned Flap (SCPF)

**Guided Tissue Regeneration (GTR)**

**Subepithelial Connective Tissue Graft (SCTG)**

**Randomized controlled clinical trial**

**Independent t-test**

**Repeated Measure ANOVA**
Bleeding on Probing (BOP) bleeding on probing (BOP).

Gingival Sulcus Bleeding Index (GSBI) Modified Muhlemann and Son (MMS) Plaque Index (PI).

Scaling & Root Planing (SRP)

Polishing

Atraumatic<br>Rolling

Occlusal Adjustment

Mucogingival Junction (MGJ)

Gingival Sulcus Bleeding Index (GSBI)

Muhlemann and Son (MMS)

Sillness and Loe (S&L) Plaque Index (PI).

WKT, CAL, PD, RH, RW

Incision

Semilunar Incision

Atraumatic<br>Rolling

Occlusal Adjustment

Mucogingival Junction (MGJ)

Gingival Sulcus Bleeding Index (GSBI)
Semilunar Coronally Positioned Flap (SCPF)

A: Modified semilunar incision
B: SRP
C: SRP + SRP
D: SRP + SRP + SRP

Shallow incision based at the mesial and distal gingival margins. The flap is coronally positioned and coronally advanced. The root surface is thoroughly cleaned using SRP. Then, the flap is coronally positioned and coronally advanced again.
Sulcular Incision and Semilunar Incision

**Sulcular Incision**

- A Type I incision as defined by Bass.
- A type II incision as defined by Bass.
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در دو طرف برش اولیه به روش هایی کم عمق عمودی انجم می‌شود. با ضخامت حدود 3 میلی‌متر بدن کولاژن اپی‌نیبالی تلقیه می‌شود. از ماهیچه‌های جدا می‌گردد. پس از بردایه سیلك بخش دهندگان به توسط بخش به پایه‌های باقی مانده به می‌گردد. سپس از پوشش‌های CEJ مارجینی گرفته و برش گرفته و توسط بخش به پایه‌های Base حداکثر می‌گردد که لیف فیبر در پوشش پایه‌های باقی مانده به روش Connective tissue graft با استفاده از همان بخش به صورتی بخش به می‌گردد. 

Partial thickness flap

در طول این مدت کنترل تغذیه توسط دهان شویه کاره‌چدنی

اموکسی سیلین (500mg T.I.D) و جهت جلوگیری از درد و تهوع از NSAID دسته‌ها (Ibuprofen 400mg Q.I.D) به مورد می‌گردد و توصیه می‌شود که بیمار تا 4 روز غذاهای نرم، نمادی پس از یک هفته باید پروپتنت ناهیده و گردن و بخش‌هایی از تهیه‌پذیران می‌شود و با دسته‌ها بردایه پس از تشکیل داده می‌شود به مدت 5 تا 7 روز تهیه‌پذیران می‌گردد پس از 4 هفته به بیماران اموزش داده شود تا با Repack Atraumatic ناهیده و می‌تواند به صورت از موارد نرم و به روش Rolling به صورت روزانه راه‌اندازی می‌شود.

RC = \[ \frac{RH_{\text{Presurgery}} - RH_{\text{Postsurgery}}}{RH_{\text{Presurgery}}} \times 100 \]
کاهش NaN t-test. مقایسه NaN از ابتدای مطالعه تا 6 ماه پس از جراحی بین دو گروه تست و کنترل، همگونی از جهت Repeated Measure ANOVA. NaN t-test. بررسی تغییرات هر یک از شاخص‌ها در گروه تست و کنترل در طول 6 ماه استفاده گردید. بررسی شاخص‌های کیفی Follow up نیز توسط Gingival Sulcus Bleeding Index و Plaque Index انجام شد. Mann-Whitney 

یافته‌ها

40 مطالعه وارد شد که به طور 

تصادفی 20 دانان در گروه تست (SCPF) و 20 دانان در گروه کنترل (SCTG) مورد بررسی در ابتدای مطالعه قرار گرفتند. مقادیر متغیرهای مرد بررسی در ابتدای مطالعه و 6 ماه بعد در جدول 1 نشان داده شده است. بررسی آماری اندازه‌گیری‌های قبل از جراحی در گروه تست و کنترل از نظر یکسان بودن توزیع داده‌ها، همگانی دو گروه در ابتدای مطالعه را تایید کرد.

بررسی نتایج مطالعه هر یک از دو گروه در طول مطالعه از 

تایان، کاهش شاخص‌های هر و گروه NaN به ظرف 6 ماه پس از جراحی (Mean ± SD) در ابتدا و 6 ماه پس از جراحی

<table>
<thead>
<tr>
<th>یاری‌های کلینیکی</th>
<th>SCTG</th>
<th>SCFP</th>
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</thead>
<tbody>
<tr>
<td>RH Baseline</td>
<td>2/85 ± 0/91</td>
<td>2/72 ± 0/65</td>
</tr>
<tr>
<td>6 Months</td>
<td>0/95 ± 0/95</td>
<td>0/77 ± 0/67</td>
</tr>
<tr>
<td>Difference</td>
<td>0/95 ± 0/75</td>
<td>0/77 ± 0/67</td>
</tr>
<tr>
<td>RW Baseline</td>
<td>3/27 ± 0/88</td>
<td>3/27 ± 0/87</td>
</tr>
<tr>
<td>6 Months</td>
<td>1/50 ± 0/75</td>
<td>1/50 ± 0/75</td>
</tr>
<tr>
<td>Difference</td>
<td>1/50 ± 0/75</td>
<td>1/50 ± 0/75</td>
</tr>
<tr>
<td>WKT Baseline</td>
<td>3/27 ± 0/88</td>
<td>3/27 ± 0/88</td>
</tr>
<tr>
<td>6 Months</td>
<td>5/54 ± 1/46</td>
<td>5/54 ± 1/46</td>
</tr>
<tr>
<td>Difference</td>
<td>5/54 ± 1/46</td>
<td>5/54 ± 1/46</td>
</tr>
<tr>
<td>PD Baseline</td>
<td>1/78 ± 0/59</td>
<td>1/78 ± 0/59</td>
</tr>
<tr>
<td>6 Months</td>
<td>0/42 ± 0/27</td>
<td>0/42 ± 0/27</td>
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<tr>
<td>Difference</td>
<td>0/42 ± 0/27</td>
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<tr>
<td>CAL Baseline</td>
<td>3/27 ± 0/88</td>
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<td>6 Months</td>
<td>1/78 ± 0/59</td>
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<tr>
<td>Difference</td>
<td>1/78 ± 0/59</td>
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</table>
مقایسه کلینیکی دو روش Semilunar Coronally Positional Flap و...\\n\\nولی میزان بهبود جنبه‌های دیگری در مطالعه، نتایج امروزی نشان دهنده
یک کاهش قابل توجه در ارتفاعات مطالعه به‌طور کلی می‌باشد.

بحث و نتیجه‌گیری

هدف این مطالعه مقایسه دو روش Semilunar و SCPF در درمان تحقیق‌های قبل امکان‌پذیر، در ارتقاء ارتفاعات (20/50–180/50 SCTG و ریشه‌های در هر دو گروه بالا، پایین و SCPF) و ریشه‌های پایین دنیا گروه بالا، پایین و SCPF) و

وقتی که بخش جابجایی فلد در منطقه وجود داشته است تبدیل به در مطالعه حاضر و SCPF و SCTG در بررسی ارتفاعات جراحی، عدم تبادل

درمی‌باشد. علاوه بر این شرایط بافت کراتینزه (عمر و ضخامت) در


