New Incision Method for Effective Execution of Endonasal Septoplasty

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Abstract

**Introduction**: Endonasal septoplasty is almost no effect on the tip support mechanism. However, it has the difficulties in exfoliation of mucoperichondrial flap and narrow view of the surgical area. Therefore, Author have devised incision method that can more easily exfoliate and more effectively expose the nasal septum that the existing approach method and I am making report of the comparison of my method with the existing methods.

**Methods**: Firstly, as illustrated in the Figure below, incision was made between a and a’(dense area of mucoperichondrial flap) on the median line of the existing modified Killian incision with interval of approximately 5mm using scalpel No. 15. The incision was extended to the both ends(loose area of mucoperichondrial flap) in radial direction that can be reached with clear surgical view. Then, simple suture with vicryl 5-0 was made at 2 locations(a, a’) after having collected the septum by leaving L-strut following exfoliation of mucoperichondrial flap(Fig. 1, 2). Endonasal septoplasty under the conditions that are the same as the existing 3 types of incision methods was performed 10 times and the average duration of surgery using my method was compared with the other 3 methods in order to determine the usefulness of my method at the time of endonasal septoplasty.

![Fig. 1. Representative incision methods and my method of endonasal septoplasty](image-url)
Fig. 2. Mucoperichondrial flap of nasal septum

**Results:** My incision method took the shortest time among the methods compared with average time of 10 minutes and 2 seconds in collecting the maximum quantity of septum while leaving the L-strut(Table 1).

**Table. 1. Comparison of 4 types of incision methods**

<table>
<thead>
<tr>
<th></th>
<th>Transfixation</th>
<th>Killian</th>
<th>Modified Killian</th>
<th>Author`s incision</th>
<th>p-Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average time</td>
<td>13 minutes</td>
<td>11 minutes</td>
<td>10 minutes</td>
<td>10 minutes</td>
<td>0</td>
</tr>
<tr>
<td>taken for the surgery</td>
<td>and 31 seconds</td>
<td>and 48 seconds</td>
<td>and 40 seconds</td>
<td>and 2 seconds</td>
<td></td>
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</tbody>
</table>

*Statistical significances tested by Kruskall-wallis test among groups. (p<0.01)

**Conclusion:** By exfoliating the dense tissues in a relatively small area of 5mm, it was possible to accurately perform septoplasty as it was possible to secure relative wider surgical view by easily exfoliating the loose tissues. In addition, suturing could be easily completed through simple suture with vicryl 5-0 only at a and a’ following collection of the septum. For these reasons, my incision method is recommended as an effective
incision method to be implemented in endonasal septroplasty since it requires the shortest time for surgery in comparison to the existing incision methods.

References


