Columellar Scars in Middle Eastern Patients
Are They Exceptionally Obvious?

Abstract

Objective: To re-investigate the findings of previous researchers regarding columellar scars visibility results on Middle Eastern patients.
Method: Case analysis report and review of the medical literature on the said topic.
Subject: Eighty seven Middle Eastern patients who underwent primary open rhinoplasty and/or septrhinoplasty.
Results: Only 9 patients (10.3% of patients) considered their scar unsatisfactory and 2 patients (3.4%) considered as objective failure when assessed by another rhinoplasty surgeon.
Conclusion: This study concludes that columellar scars in Middle Eastern patients can be highly unnoticeable if optimum technique of wound closure will be used.
Key words: Open Rhinoplasty; Columellar Scar.

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Introduction:
Open rhinoplasty gained progressive popularity in the last 40 years. It was Goodman in 1970, who published the first results on open rhinoplasty approach (1,2,3). This surgery leaves a scar on the columella; the scar is less noticeable in Caucasian patients. However, on reviewing the literature on Middle Eastern patients’ columellar scar analysis, we found a significant controversy regarding the columellar scars’ visibility following open rhinoplasty from being highly unnoticeable (4) to being unsatisfactory in high percentage of patients (5).
The aim of this study was to re-investigate the findings of previous researchers on this issue. The columellar scar was analyzed subjectively by the patient himself/herself and objectively by another rhinoplasty surgeon.

Materials and Methods
Eighty seven adult Middle Eastern patients (60 males & 27 females) who have undergone either open rhinoplasty or septrhinoplasty by a senior rhinoplasty consultant from 2007 to 2009 were chosen randomly for this study. The mean age was 22 years (range from 17 to 33 years). A minimum follow up of one year before scar analysis was a requirement for them to be considered as a subject; the gull-wing with an inverted V transcolumellar incision described by Adamson et al. 1990 was used as a basis.
Scar analysis was performed primarily by the patients as to decide if the scar is unnoticeable (Grade 0), noticeable but acceptable (Grade I) or unsatisfactory (Grade II). The scar was then be evaluated by another surgeon using the same grading technique.

Results:
When the visibility of the scar was graded by the patient (Table I), 42 patients (48.3%) found their scar unnoticeable, 36 patients (41.4%) found it to be noticeable but acceptable, while 9 patients (10.3%) found their scars unsatisfactory; these results were considered as subjective failure.
Comparing male to female ratio in finding the scar unsatisfactory, there wasn’t any significant difference between the two groups. (OR: 1.13 [95% CI: 0.2-5.78])
When the columellar scar was studied objectively (Table II) however, 42 patients (48.3%) had almost unnoticeable scar, 42 patients (48.3%) had a noticeable scar but acceptable results and only 3 patients (3.4%) were found to have unsatisfactory scar based on the evaluator’s analysis. 2 of the patients had hyperpigmented scar and one had a depressed scar.
Table I: Patient Evaluation of his/her scar visibility
(subjective analysis)

<table>
<thead>
<tr>
<th>Grade</th>
<th>No. of Patients</th>
</tr>
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<tbody>
<tr>
<td>(0)</td>
<td>42 (48.3 %)</td>
</tr>
<tr>
<td>(1)</td>
<td>36 (41.4 %)</td>
</tr>
<tr>
<td>(2)</td>
<td>9 (10.3 %)</td>
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Table II: Surgeon’s evaluation of Scar visibility
(objective analysis)

<table>
<thead>
<tr>
<th>Grade</th>
<th>No. of Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>(0)</td>
<td>42 (48.3 %)</td>
</tr>
<tr>
<td>(1)</td>
<td>42 (48.3 %)</td>
</tr>
<tr>
<td>(2)</td>
<td>3 (3.41 %)</td>
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</table>

Discussion
The popularity of open external rhinoplasty is increasing in the Middle East. The columellar scar following open rhinoplasty is extremely well accepted in the western community (6,7,8). However, upon reviewing the literature for the presence of unsatisfactory columellar scar in Middle Eastern patients, we found a great controversy – from being higher than expected (5) to being unnoticeable (4). Our study showed that Middle Eastern patients even though they tend to have thick, oily, slightly darker skin than that of the lighter, thinner skin patients, will yield a highly acceptable scar. None of the patients had wound dehiscence or flap necrosis.
We think that the selection of the approach in case of rhinoplasty should depend mainly on the degree of deformity present, and the experience of the operating surgeon. The scar of open external rhinoplasty is highly favourable and should not influence the choice of the approach. However, recommendations to improve this scar should be considered (5,6): The incision should not be placed below the medial crural foot, accurate wound approximation, use of fine sutures, avoidance of cauteryization of the subcutaneous tissue and aggressive de-fatting (5), avoidance of tension, and inversion of the incision line (4).
This study concludes that open rhinoplasty in Middle Eastern patients will lead to unnoticeable highly acceptable columellar scar whenever optimum technique of wound closure was used.

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