Delayed Extrusion of Malar Implants:
Inherent Complication or Technical Error?

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Abstract

Objective: Complications of malar implants are rare and may involve patient dissatisfaction, asymmetry, and displeasing contours. Even more rare is the migration of the implant into the skull with only a few published reports existing on the subject. Typically, the complication occurs decades after placement of the implant.

Case report: This case report describes a patient who presented with a significant depression on her right malar prominence and a history of recurrent sinus infections. Of note, she had placement of bilateral malar implants 20 years ago. Computed tomography scan showed the right malar implant penetrating the right anterior maxillary wall, traversing the maxillary sinus, and extending the lateral nasal wall into the nasal cavity. The malar implant was successfully removed through a transoral approach without any complications. The patient recovered well and required no further intervention.

Conclusions: The growing popularity of alloplastic malar implants makes it important for facial plastic and reconstructive surgeons to be aware of implant extrusions. With the majority of malar implants placed in the last two decades, incidence of the complication may increase in the subsequent years. Our case highlights the possible etiology of malar implant migration and extrusion. Only nine other cases of extrusion have been published in the literature. Proper placement of malar implants may prevent future complications by limiting the risk of bony erosion and implant displacement.

Table 1. Published cases of malar implant migration and/or extrusions.

<table>
<thead>
<tr>
<th>Year</th>
<th>Authors</th>
<th>Side</th>
<th>Age</th>
<th>Year to Extrusion</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>Adams and Kawamoto6</td>
<td>L</td>
<td>35</td>
<td>6.3</td>
<td>Silicone</td>
</tr>
<tr>
<td>2010</td>
<td>Adams and Kawamoto6</td>
<td>R</td>
<td>40</td>
<td>1.6</td>
<td>Silicone</td>
</tr>
<tr>
<td>2011</td>
<td>Salmin et al.5</td>
<td>L</td>
<td>52</td>
<td>NR</td>
<td>Silastic</td>
</tr>
<tr>
<td>2011</td>
<td>Menon and Gupta6</td>
<td>B/L</td>
<td>26</td>
<td>1</td>
<td>Proplast</td>
</tr>
<tr>
<td>2012</td>
<td>Hatten et al.7</td>
<td>R</td>
<td>60</td>
<td>10</td>
<td>Silicone</td>
</tr>
<tr>
<td>2013</td>
<td>Ginat et al.8</td>
<td>R</td>
<td>52</td>
<td>10</td>
<td>Silastic</td>
</tr>
<tr>
<td>2013</td>
<td>Ginat et al.8</td>
<td>B/L</td>
<td>65</td>
<td>15</td>
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<tr>
<td>2013</td>
<td>Ginat et al.8</td>
<td>L</td>
<td>71</td>
<td>10</td>
<td>Silastic</td>
</tr>
<tr>
<td>2013</td>
<td>Ginat et al.8</td>
<td>L</td>
<td>52</td>
<td>20</td>
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</tbody>
</table>

Discussion

There have been nine other case reports of extrusion or migration of malar implants (Table 1). Menon and Gupta concluded that their case of malar migration and scleral erosion occurred secondary to the implant being placed to superiorly from the desired location (6). Hatten et al. postulated that because of the crescent shape of malar implants, it may abut the masseter and buccinator muscles; thus, compressing the implant to the bone and resulting in erosion (7).

Typically, the malar implant should be placed at the lower border of the malar bone over zone 1 and 2 (i.e., major body of the malar bone and first third of the zygomatic arch). The implant should be placed on the external facial surface of the masseter muscles. We suggest a possible mechanism for malar implant extrusion (Figure 7A, 7B, 7C).

Conclusions

Awareness of malar migration and extrusions is vital for preventing future complications. Our case highlights the importance of placement of malar implants over the malar bone. Most malar implants that extruded were made of silastic or silicone. The majority of extrusions occurred 10 years after placement of the implants. Proper placement of malar implants may prevent future complications by limiting the risk of bony erosion and implant displacement.

References


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